Containing general information and courses of study for the 2017/2018 session corrected to August 2017
Nashville
Communicating with the School of Medicine

Office of the Dean
Jeffrey R. Balser, M.D., Ph.D.
Dean, Vanderbilt University School of Medicine
D-3300 Medical Center North
Nashville, Tennessee 37232-2104
(615) 936-3030

Office of Health Sciences Education
Bonnie M. Miller, M.D., M.M.H.C.
Senior Associate Dean for Health Sciences Education
201 Rudolph A. Light Hall
Nashville, Tennessee 37232-0685
(615) 322-7221

Faculty Affairs
David S. Raiford, M.D.
Senior Associate Dean for Faculty Affairs
320 Rudolph A. Light Hall
Nashville, Tennessee 37232-0260
(615) 875-8721

Biomedical Research, Education and Training
Roger Chalkley, D. Phil.
Senior Associate Dean for Biomedical Research, Education and Training
340 Rudolph A. Light Hall
Nashville, Tennessee 37232-0301
(615) 343-4611

Undergraduate Medical Education
Kimberly D. Lomis, M.D.
Associate Dean for Undergraduate Medical Education
201 Rudolph A. Light Hall
Nashville, Tennessee 37232-0685
(615) 835-7700

Medical Scientist Training
Christopher S. Williams, M.D., Ph.D.
Associate Dean for Physician-Scientist Education and Training
1030 MRB IV
Nashville, Tennessee 37232
(615) 322-5200

Graduate Medical Education
Donald W. Brady, M.D.
Senior Associate Dean for Graduate Medical Education and Continuing Professional Development
201 Rudolph A. Light Hall
Nashville, Tennessee 37232-0685
(615) 322-6035

Diversity in Medical Education
André L. Churchwell, M.D.
Senior Associate Dean for Diversity Affairs
319 Rudolph A. Light Hall
Nashville, Tennessee 37232-0260
(615) 322-7497

Medical Student Affairs
Amy E. Fleming, M.D., M.P.H.E.
Associate Dean for Medical Student Affairs
201 Rudolph A. Light Hall
Nashville, Tennessee 37232-0685
(615) 322-5007

Office of Enrollment Services
Admissions
Jennifer S. Kimble, M.Ed.
Director of Admissions
303 Rudolph A. Light Hall
Nashville, Tennessee 37232-0248
(615) 322-2145

Scholarships and Financial Aid
Sherry Stuart
Assistant Director, Student Financial Services
303 Rudolph A. Light Hall
Nashville, Tennessee 37232-0248
(615) 322-1792

Student Records
Logan S. Key, M.Ed.
Director, Student Records
303 Rudolph A. Light Hall
Nashville, Tennessee 37232-0248
(615) 322-2145

Center for Experiential Learning and Assessment (CELA)
Arna Banerjee, M.D.
Director
3450 Medical Research Building IV
Nashville, Tennessee 37232-0432
(615) 936-8801

Continuing Medical Education/Maintenance of Certification
Donald E. Moore, Jr., Ph.D.
Educational Director
Office of Continuing Professional Development
201 Rudolph A. Light Hall
Nashville, Tennessee 37232-0685
(615) 322-6035

Education Design and Technology
W. Anderson Spickard III, M.D.
Assistant Dean for Education Design and Technology
3402 Medical Research Building IV
2213 Garland Ave.
Nashville, Tennessee 37232-0432
(615) 875-5724

Alumni Affairs
Ann H. Price, M.D.
Associate Dean for Alumni Affairs
D-8212 Medical Center North
Nashville, Tennessee 37232-2106
(615) 343-6337

Ombudsman
Lynn E. Webb, Ph.D.
Ombudsman for Vanderbilt University School of Medicine
2135 Blakemore Ave
Nashville, Tennessee 37212
(615) 936-7184

Additional information about the Vanderbilt University School of Medicine faculty, staff, and programs may be found on the web at medschool.vanderbilt.edu.
The university reserves the right, through its established procedures, to modify the requirements for admission and graduation and to change other rules, regulations, and provisions, including those stated in this bulletin and other publications, and to refuse admission to any student, or to require the withdrawal of a student if it is determined to be in the interest of the student or the university. All students, full time or part time, who are enrolled in Vanderbilt courses are subject to the same policies.

Policies concerning noncurricular matters and concerning withdrawal for medical or emotional reasons can be found in the Student Handbook, which is on the Vanderbilt website at vanderbilt.edu/student_handbook.

NONDISCRIMINATION STATEMENT
In compliance with federal law, including the provisions of Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendment of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, the ADA Amendments Act of 2008, Executive Order 11246, the Vietnam Era Veterans Readjustment Assistance Act of 1974 as amended by the Jobs for Veterans Act, and the Uniformed Services Employment and Reemployment Rights Act, as amended, and the Genetic Information Nondiscrimination Act of 2008, Vanderbilt University does not discriminate against individuals on the basis of their race, sex, sexual orientation, gender identity, religion, color, national or ethnic origin, age, disability, military service, covered veteran status, or genetic information in its administration of educational policies, programs, or activities; admissions policies; scholarship and loan programs; athletic or other university-administered programs; or employment. In addition, the university does not discriminate against individuals on the basis of their gender expression, consistent with the university’s nondiscrimination policy. Inquiries or complaints should be directed to the Equal Opportunity, Affirmative Action, and Disability Services Department, Baker Building, PMB 401809, 2301 Vanderbilt Place, Nashville, TN 37240-1809. Telephone (615) 322-4705 (V/TDD); Fax (615) 343-4969.

Vanderbilt®, Vanderbilt University®, V Oak Leaf Design®, Star V Design® and Anchor Down® are trademarks of The Vanderbilt University. © 2017 Vanderbilt University. All rights reserved.

The text of this catalog is printed on recycled paper with ink made from renewable resources.

This publication is recyclable. Please recycle it.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar</td>
<td>4</td>
</tr>
<tr>
<td>Administration</td>
<td>5</td>
</tr>
<tr>
<td>Vanderbilt University</td>
<td>10</td>
</tr>
<tr>
<td>Life at Vanderbilt</td>
<td>11</td>
</tr>
<tr>
<td>Medical Education at Vanderbilt</td>
<td>21</td>
</tr>
<tr>
<td>Admission</td>
<td>33</td>
</tr>
<tr>
<td>Academic Programs and Policies</td>
<td>41</td>
</tr>
<tr>
<td>Honors and Awards</td>
<td>64</td>
</tr>
<tr>
<td>Financial Information</td>
<td>66</td>
</tr>
<tr>
<td>Courses of Study</td>
<td>74</td>
</tr>
<tr>
<td>Faculty</td>
<td>114</td>
</tr>
<tr>
<td>Index</td>
<td>210</td>
</tr>
</tbody>
</table>
School of Medicine Calendar 2017/2018

FALL SEMESTER 2017

Classes begin for 3rd- and 4th-year M.D. students / Monday 10 July
Classes continue for 2nd-year M.D. students / Monday 3 July
Orientation/Registration for 1st-year M.D. students / Wednesday 19 July–Friday 21 July
Classes begin for 1st-year M.D. students / Monday 24 July
Fall semester begins for VUSM master’s and doctoral programs (other than M.D.) / Wednesday 23 August
Labor Day—No M.D. classes or clinical activities / Monday 4 September
Fall break for VUSM master’s and doctoral programs (other than M.D.) / Thursday 12 October–Sunday 15 October
Fall break for 1st-year medical students / Saturday 21 October–Tuesday 24 October
Thanksgiving holiday for VUSM master’s and doctoral programs (other than M.D.) / Saturday 18 November–Sunday 26 November
Thanksgiving holiday for all M.D. students / Thursday 23 November–Sunday 26 November
Fall semester ends for all VUSM master’s and doctoral programs (other than M.D.) / Thursday 7 December
Holiday break for all VUSM master’s and doctoral programs (other than M.D.) / Sunday 17 December–Sunday 7 January, 2018
Fall semester ends for all M.D. students / Thursday 21 December
Holiday break for all M.D. students / Friday 22 December–Sunday 7 January, 2018

SPRING SEMESTER 2018

Classes begin for all M.D. students / Monday 8 January
Spring semester begins for VUSM master’s and doctoral programs (other than M.D.) / Monday 8 January
Martin Luther King Jr. Day—No class or clinical activities / Monday 15 January
Spring break for 2nd-year M.D. students / Saturday 3 March–Sunday 11 March
Spring break for VUSM master’s and doctoral programs (other than M.D.) / Saturday 3 March–Sunday 11 March
Spring break for 1st-year M.D. students / Saturday 28 April–Sunday 6 May
Spring semester ends for VUSM master’s and doctoral programs (other than M.D.) / Monday 23 April
Instruction ends for 4th-year M.D. students / Wednesday 2 May
Commencement / Friday 11 May
Memorial Day—No class or clinical activities / Monday 28 May

SUMMER SESSION 2018

May term begins for VUSM master’s and doctoral programs (other than M.D.) / Monday 7 May
May term ends for VUSM master’s and doctoral programs (other than M.D.) / Friday 1 June
Full summer term begins for VUSM master’s and doctoral programs (other than M.D.) / Tuesday 5 June
Summer break for 1st-year M.D. students / Saturday 28 July–Sunday 26 August
Full summer term ends for VUSM master’s and doctoral programs (other than M.D.) / Friday 10 August
## Vanderbilt University Board of Trust

BRUCE R. EVANS, Chairman, Boston, MA  
JEFFREY J. ROTHSCCHILD, Vice Chairman, Palo Alto, CA  
JON WINKELRIED, Vice Chairman, Hobe Sound, FL  
SHIRLEY M. COLLADO, Secretary, Ithaca, NY  
NICHOLAS S. ZEPPOS, Chancellor of the University, Nashville, TN

<table>
<thead>
<tr>
<th>Name</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREG S. ALLEN</td>
<td>Charlottesville, VA</td>
</tr>
<tr>
<td>LEE M. BASS</td>
<td>Fort Worth, TX</td>
</tr>
<tr>
<td>ADOLPHO A. BIRCH III</td>
<td>New York, NY</td>
</tr>
<tr>
<td>DANIEL M. CROWN</td>
<td>New York, NY</td>
</tr>
<tr>
<td>CHARLES H. ESSERMAN</td>
<td>Orinda, CA</td>
</tr>
<tr>
<td>JAY C. HOAG</td>
<td>Palo Alto, CA</td>
</tr>
<tr>
<td>JOHN R. INGRAM</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>KATHLEEN E. JUSTICE-MOORE</td>
<td>Palo Alto, CA</td>
</tr>
<tr>
<td>CARROLL E. KIMBALL</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>STEVEN H. MADDEN</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>MARK P. MAYS</td>
<td>San Antonio, TX</td>
</tr>
<tr>
<td>COURTNEY C. PASTRIK</td>
<td>Bethesda, MD</td>
</tr>
<tr>
<td>DAVID W. PATTERSON, M.D.</td>
<td>Great Falls, VA</td>
</tr>
<tr>
<td>H. ROSS PEROT, JR.</td>
<td>Dallas, TX</td>
</tr>
<tr>
<td>SID SAPRU</td>
<td>Clarksville, MD</td>
</tr>
<tr>
<td>ROBERT C. SCHIFF, JR., M.D.</td>
<td>Cincinnati, OH</td>
</tr>
<tr>
<td>ALEXANDER C. TAYLOR, JR.</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>PATRICIA EARLY WHITE</td>
<td>Mayfair, England</td>
</tr>
<tr>
<td>MARK WILF</td>
<td>Livingston, NJ</td>
</tr>
</tbody>
</table>

**Emerita/Emeritus Trustees**

<table>
<thead>
<tr>
<th>Name</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARY BETH ADDERLEY</td>
<td>La Jolla, CA</td>
</tr>
<tr>
<td>MICHAEL L. AINSLIE</td>
<td>Palm Beach, FL</td>
</tr>
<tr>
<td>WILLIAM W. BAIN, JR.</td>
<td>Naples, FL</td>
</tr>
<tr>
<td>DARYL D. BERGER</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>CAMILLA DIETZ BERGERON</td>
<td>New York, NY</td>
</tr>
<tr>
<td>DENNIS C. BOTORIFF</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>LEWIS M. BRANSCOMB</td>
<td>La Jolla, CA</td>
</tr>
<tr>
<td>THOMAS F. CONE</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>CECIL D. CONLEE</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>BROWNLEE O. CURRERY, JR.</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>MARK F. DALTON</td>
<td>Scarsdale, NY</td>
</tr>
<tr>
<td>CLAIBORNE P. DEMING</td>
<td>El Dorado, AR</td>
</tr>
<tr>
<td>FRANK A. GODCHAUX III</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>JOHN R. HALL</td>
<td>Lexington, KY</td>
</tr>
<tr>
<td>L. HALL HARDAWAY, JR.</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>H. RODES HART</td>
<td>Brentwood, TN</td>
</tr>
<tr>
<td>JOANNE F. HAYES</td>
<td>Gulf Stream, FL</td>
</tr>
<tr>
<td>MARTHA R. INGRAM</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>J. HICKS LANIER</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>EDWARD A. MALLOY, C.S.C.</td>
<td>Notre Dame, IN</td>
</tr>
<tr>
<td>JACKSON W. MOORE</td>
<td>Memphis, TN</td>
</tr>
<tr>
<td>KENNETH L. ROBERTS</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>JOE L. ROBY</td>
<td>New York, NY</td>
</tr>
<tr>
<td>EUGENE B. SHANKS, JR.</td>
<td>Greenwich, CT</td>
</tr>
<tr>
<td>RICHARD H. SINKFIELD</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>CAL TURNER</td>
<td>Franklin, TN</td>
</tr>
<tr>
<td>J. STEPHEN TURNER</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>EUGENE H. VAUGHAN</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>DUDLEY BROWN WHITE</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>W. RIDLEY WILLS II</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>J. LAWRENCE WILSON</td>
<td>Bonita Springs, FL</td>
</tr>
<tr>
<td>REBECCA WEBB WILSON</td>
<td>Memphis, TN</td>
</tr>
<tr>
<td>WILLIAM M. WILSON</td>
<td>Nashville, TN</td>
</tr>
<tr>
<td>MARIBETH GERACIOTI, Secretary to the Board of Trust</td>
<td></td>
</tr>
</tbody>
</table>

Vanderbilt University Board of Trust
Vanderbilt University Administration

NICHOLAS S. ZEPPOS, J.D., Chancellor
SUSAN R. WENTE, Ph.D., Provost and Vice Chancellor for Academic Affairs
AUDREY J. ANDERSON, J.D., Vice Chancellor, General Counsel, and Secretary of the University
STEVE ERTEL, B.A., Vice Chancellor for Communications
NATHAN GREEN, B.B.A., Interim Vice Chancellor for Public Affairs
ANDERS W. HALL, M.B.A., Vice Chancellor for Investments and Chief Investment Officer
ERIC C. KOPSTAIN, M.B.A., Vice Chancellor for Administration
JOHN M. LUTZ, A.B., Vice Chancellor for Information Technology
TINA L. SMITH, Ed.D., Interim Vice Chancellor for Equity, Diversity, and Inclusion and Interim Chief Diversity Officer
SUSIE S. STALCUP, B.B.A., C.F.P., Vice Chancellor for Development and Alumni Relations
BRETT SWEET, M.B.A., Vice Chancellor for Finance and Chief Financial Officer
DAVID WILLIAMS II, J.D., LL.M., M.B.A., Vice Chancellor for Athletics and University Affairs and Athletics Director

Deans

JEFFREY R. BALSER, M.D., Ph.D., Dean of the School of Medicine
MARK D. BANDAS, Ph.D., Associate Provost and Dean of Students
VANESSA BEASLEY, Ph.D., Dean of The Martha Rivers Ingram Commons
CAMILLA PERSSON BENBOW, Ed.D., Dean of Peabody College
LAUREN A. BENTON, Ph.D., Dean of the College of Arts and Science
DOUGLAS L. CHRISTIANSEN, Ph.D., Vice Provost for University Enrollment Affairs and Dean of Admissions and Financial Aid
PHILIPPE M. FAUCHET, Ph.D., Dean of the School of Engineering
CHRIS GUTHRIE, J.D., Dean of the Law School
M. ERIC JOHNSON, Ph.D., Dean of Owen Graduate School of Management
LINDA D. NORMAN, D.S.N., Dean of the School of Nursing
EMILIE M. TOWNES, Ph.D., Dean of the Divinity School
MARK WAIT, D.M.A., Dean of Blair School of Music
MARK T. WALLACE, Ph.D., Dean of the Graduate School
School of Medicine Administration

JEFFREY R. BALSER, M.D., Ph.D., Dean, School of Medicine
LAWRENCE J. MARINETT, Ph.D., Dean of Basic Sciences
BONNIE M. MILLER, M.D., M.M.H.C., Senior Associate Dean for Health Sciences Education
GORDON R. BERNARD, M.D., Senior Associate Dean for Clinical Research
DONALD W. BRADY, M.D., Senior Associate Dean for Graduate Medical Education and Continuing Professional Development
G. ROGER CHALKLEY, D.Phil., Senior Associate Dean for Biomedical Research, Education, and Training
ANDRE L. CHURCHWELL, M.D., Senior Associate Dean for Diversity Affairs
ROBERT S. DITTUS, M.D., M.P.H., Senior Associate Dean for Population Health Sciences
C. WRIGHT PINSON, M.B.A., M.D., Senior Associate Dean for Clinical Affairs
DAVID S. RAIFORD, M.D., Senior Associate Dean for Faculty Affairs
WILLIAM COOPER, M.D., M.P.H., Associate Dean for Faculty Affairs
AMY E. FLEMING, M.D., M.P.H.E., Associate Dean for Medical Student Affairs
KATHLEEN GOULD, Ph.D., Associate Dean for Biomedical Sciences and Director, Office of Graduate Student Support
KATHERINE E. HARTMANN, M.D., Ph.D., Associate Dean for Clinical and Translational Scientist Development
ALYSSA M. HASTY, Ph.D., Associate Dean for Faculty Development (Basic Sciences)
KIMBERLY D. LOMIS, M.D., Associate Dean for Undergraduate Medical Education
STEVEN G. MERANZE, M.D., Associate Dean for Faculty Affairs
JOHN S. PENN, Ph.D., Associate Dean for Faculty Affairs
ANN H. PRICE, M.D., Associate Dean for Alumni Affairs
CHARLES R. SANDERS, Ph.D., Associate Dean for Research (Basic Sciences)
LINDA J. SEALY, Ph.D., Associate Dean for Diversity, Equity and Inclusion (Basic Sciences)
PAUL J. STEPhENBERG, JR., M.D., Associate Dean for Clinical Affairs
CHRISTOPHER S. WILLIAMS, M.D., Ph.D., Associate Dean for Physician Research Education; Director, Medical Scientist Training Program
ARNA BANERJEE, M.D., Assistant Dean for Simulation in Medical Education
JOEY V. BARNETT, Ph.D., Assistant Dean and Director, Office for Medical Student Research; Chair, Doctor of Medicine Admission Committee
WILLIAM B. CUTRER, M.D., M.Ed., Assistant Dean for Undergraduate Medical Education
CHARLENE DEWEY, M.D., M.Ed., Assistant Dean for Educator Development
DONNA E. ROSENSTIEL, L.C.S.W., Assistant Dean for Health Sciences Education
CATHLEEN C. PETTEPHER, Ph.D., Assistant Dean for Medical Student Assessment
W. ANDERSON SPICKARD III, M.D., Assistant Dean for Education Design and Technology
REBECCA R. SWAN, M.D., Assistant Dean for Graduate Medical Education
KIMBERLY N. VINSON, M.D., Assistant Dean for Diversity Affairs
LYNN E. WEBB, Ph.D., Assistant Dean for Faculty Development; Ombudsman, Vanderbilt University School of Medicine
ALICE C. COOGAN, M.D., Chair, Doctor of Medicine Admission Committee
JESSE EHRENFELD, M.D., M.P.H., Director, Education Research; Director, LGBTI Health
MICHAEL J. FOWLER, M.D., Director, Clinical Skills Development
DONALD E. MOORE, JR., Ph.D., Director, M.D. Curriculum Evaluation
MICHAEL PONS, Administrative Officer, Office of Health Sciences Education
LOGAN KEY, M.Ed., Director, Office of Student Records
JENNIFER KIMBLE, M.Ed., Director, Admissions
LINDSEY MOLONEY, M.S., Administrative Director, Office of Undergraduate Medical Education
REGINA G. RUSSELL, M.Ed., Director, Learning Systems Outcomes
SARAH C. WOODALL, Administrative Director, Office for Medical Student Affairs
LOURDES ESTRADA, Ph.D., Associate Director, Academics and Operations, Medical Scientist Training Program
SALLY YORK, M.D., Ph.D., Associate Director for Clinical Education, Medical Scientist Training Program
SHERRY STUART, Assistant Director, Student Financial Services

Executive Faculty


Standing Committees

(The dean is an ex officio member of all standing and special committees.)

Doctor of Medicine Admission Committees

The M.D. Program admission committees have the responsibility of reviewing medical school applications for admission and recommending to the chairs of admission those applicants considered most qualified for admission. Chairs and the Director of Admission oversee and continually review the entire admission process, recruit committee members, schedule and conduct training sessions for the committees, and organize and lead committee meetings.

The following admission sub-committees include faculty from across the Vanderbilt University School of Medicine who review applications in a holistic manner. Committee members’ reviews and analyses are compiled and exchanged over a multi-step process.

Step 1—Screening Admission Committee: This committee includes approximately 25 faculty members who screen primary applications to identify the candidates who will receive secondary applications. The screening admission committee also reviews secondary applications to determine which applicants will be considered for interviews.

Step 2—Interview Selection Committee: This committee includes approximately 25 faculty members who review and evaluate application materials to determine the candidates to invite for interviews.

Step 3—Executive Admission Committee: This committee includes approximately 15 faculty members and 10 current medical students, on rotating appointments, who review and evaluate all application materials, including interview reports, to provide a score that substantiates the determination of which candidates will be offered admission.
Doctor of Medicine Phase Teams

Phase Teams consist of the course directors and major teachers responsible for implementation of the curriculum for each of the phases in medical school, as well as representatives of the Student Curriculum Committee and staff members working with the curriculum. The associate dean for undergraduate medical education and the Undergraduate Medical Education Executive Committee faculty chair coordinate the work of the Phase Teams to support the curricular quality improvement process.

Foundations of Medical Knowledge Team: Neil Osheroff, Chair. All block and longitudinal course directors serve on this committee. Ex officio: Kimberly D. Lomis, Bonnie M. Miller, Amy E. Fleming, and Logan Key.

Foundations of Clinical Care Team: Ed Vasilevskis, Chair. All clerkship directors and longitudinal course directors serve on this committee. Ex officio: Kimberly D. Lomis, Bonnie M. Miller, Amy E. Fleming, and Logan Key.

Immersion Team: Lourdes Estrada, William Cutrer, Co-Chairs. Members of the Immersion Phase Working Group and Advisory Team, along with Immersion course directors, serve on this committee. Ex officio: Kimberly D. Lomis, Bonnie M. Miller, Amy E. Fleming, and Logan Key.

Doctor of Medicine Student Promotion Committees

Each promotion committee will have the responsibility for making recommendations to the dean and the executive faculty concerning promotion, remedial action, or dismissal as appropriate for each student in the class/phase for which it is responsible.

Immersion Phase

Geoffrey Fleming, Chair, Leslie Gewin, Jay Jerome, Ingrid Meszoe To, Matt McEvoy, Kevin Niewender, Lorraine Ware, Ex officio: André L. Churchwell, Amy E. Fleming, Cathleen C. Pettepher, Kimberly D. Lomis.

Foundations of Clinical Care Phase

Roy Zent, Chair, Reuben Bueno, Kecia Carroll, William (Bill) Cooper, Henry (Hank) Jennings, Joyce Johnson, Ela Krupik, James S. Powers, Consuela Wilkins, Ex officio: André Churchwell, Amy E. Fleming, Cathleen C. Pettepher, Kimberly D. Lomis.

Foundations of Medical Knowledge Phase


Doctor of Medicine Undergraduate Medical Education Committee

The Undergraduate Medical Education Executive Committee (UMEC) is composed of members of the School of Medicine leadership appointed by the dean to include key faculty leaders from multiple departments, the phase team leaders, and leaders of longitudinal elements, led by a faculty chair of the committee, also appointed by the dean. (Details of committee membership are outlined in the UMEC charter.)

Ex officio members include the senior associate dean for health sciences education, the associate dean for undergraduate medical education, the associate dean for medical student affairs, the associate dean for diversity, the assistant dean for assessment, the assistant dean for educational informatics and technology, the assistant dean for undergraduate medical education, the director of clinical skills development, and the director of program evaluation. There is also student representation on this committee.

UMEC is advisory to the dean, and, along with the dean, it holds authority for central oversight of the UME curriculum. UMEC meets every other month.

Meetings are devoted to course approval/evaluation, program evaluation, thread evaluation, and/or educational policy. The agenda is determined jointly by the faculty chair of the committee and the associate dean for UME. The committee has the option of convening additional meetings as needed.

The UMEC for the current academic year will be chaired by James Atkinson and will consist of faculty representatives from basic science and clinical departments.

Faculty Appointments and Promotion Committee (FAPC) and Clinical Practice Appointment and Promotion Committee (CPAPC)

These committees, appointed by the dean, are responsible for consideration of faculty promotion in the School of Medicine and for examination of credentials of candidates for appointment to faculty positions.


Medical Innovators Development Program (MIDP)

Internal Advisory Council

The MIDP Internal Advisory Council provides strategic planning and program oversight for all aspects of the program. This committee meets once or twice each year.


Medical Innovators Development Program (MIDP) Leadership Team

The MIDP Leadership Team is appointed annually by the dean to assist in the admission process and provide program oversight and strategic planning. Each applicant for the MIDP is interviewed individually by several members of this team, which serves as the School of Medicine Admission Committee for the MIDP.

Reed Omay, Director; Victoria Morgan, Associate Director; André Churchwell, Melanie Schuele, and Trent Rosenbloom. A student member is appointed to the leadership team each year.

Medical Scientist Training Program (MSTP) Admission Committee

The MSTP Admission Committee (MSTP) is appointed annually by the dean to assist in the admissions process and provide program oversight and strategic planning. Each applicant for the MSTP is interviewed individually by several members of the MAC, which serves as the School of Medicine Admission Committee for the MSTP. The MAC includes several institutional leaders and senior scientists with responsibility for M.D. and Ph.D. training.

Christopher S. Williams, Director, Lourdes Estrada, Ambra Pozzi, Danny Winder, Sally York, Associate Directors; Megan A. Williams and Melissa Krasnow, Assistant Directors, R. Daniel Beauchamp, Bruce D. Carter, Kevin Ess, Cynthia Gadd, Maria Hadjifrangiskou, Katherine Hartmann, Charles Hong, Duco Jansen, Pierre Massion, Andrea Page McCaw, Wellington Pham, Dan M. Roden, Michelle Southard-Smith, Roy Zent. Student Members: Lillian Juttukondak, Matt Stier, Ex officio: G. Roger Chalkley, André Churchwell, Amy E. Fleming, Kimberly D. Lomis, Bonnie M. Miller.
Medical Scientist Training Program (MSTP) Senior Oversight Committee
The MSTP Senior Oversight Committee provides guidance about all aspects of the program. This committee meets once or twice each year and is focused on strategic planning and program oversight.

Christopher S. Williams, Director. Lourdes Estrada, Ambra Pozzi, Danny Winder, Sally York, Associate Directors; Megan A. Williams and Melissa Krasnove, Assistant Directors. G. Roger Chalkley, Chair. Kimberly D. Lomis, Lawrence J. Marnett, Bonnie M. Miller, Amy E. Fleming.

Quantitative and Chemical Biology Executive Committee
The Quantitative and Chemical Biology (QCB) Executive Committee is responsible for evaluating and admitting students to the QCB, which is a doctoral training program designed for those interested in pursuing research at the interface of chemical, physical, and biological sciences. The Executive Committee will review the progress of the first-year graduate students in the program before recommending students to the graduate programs of Biochemistry, Biological Sciences, Cancer Biology, Cell and Developmental Biology, Cellular and Molecular Pathology, Chemical and Physical Biology, Chemistry, Human Genetics, Mathematics, Molecular Physiology and Biophysics, Microbiology and Immunology, Neuroscience, Pharmacology, and Physics. Based on their field of research, students are welcome to pursue doctoral scholarship in the School of Medicine, the College of Arts and Science, and the School of Engineering.

Hassane Mchaourab, Chair. Raymond Blind, Beth Bowman, Alan Brash, Todd Peterson, Erin Rericha, and David Weaver.

Selected Other Committees Related to Medical Education

Global Health Education Committee
The Global Health Education Committee (GHEC) supports the vision of the School of Medicine and the Vanderbilt University Medical Center to provide an array of global health education and training opportunities for VUSM and VUMC trainees while simultaneously enhancing the capacity of our partners in a collaborative effort to address global health challenges.

Donald Brady, Melissa Carro, Quentin Eichbaum, Natasha Halasa, Doug Heimburger, Julie Lankford, Marie Martin, Bonnie Miller, Doug Morgan, and Melinda New.

Interdisciplinary Graduate Program Executive Committee
The Interdisciplinary Graduate Program Executive Committee is concerned with graduate student affairs and graduate programs in the Medical Center. It is responsible for admitting students to the Interdisciplinary Graduate Program in the Biomedical Sciences; for recommending candidates for fellowships and other funds available for the program; and for reviewing activities and progress of the students in the program and recommending students to the Departments of Biochemistry, Biological Sciences, Cancer Biology, Cell and Developmental Biology, Molecular Physiology and Biophysics, Neuroscience, Pathology, Microbiology and Immunology, and Pharmacology and to the graduate programs in Chemical and Physical Biology, Human Genetics, and Neuroscience for the completion of the Ph.D.


Vanderbilt Institute for Clinical and Translational Research (VICTR) Scientific Review Committee
The VICTR Scientific Review Committee meets regularly to act upon research proposals requesting support for the use of the VICTR resources including the Clinical Research Center, Health Services Research, Biomedical Informatics, Biomedical Statistics, Research Cores, and Research Support Services.

When Commodore Cornelius Vanderbilt gave a million dollars to build and endow Vanderbilt University in 1873, he did so with the wish that it “contribute to strengthening the ties which should exist between all sections of our common country.”

A little more than a hundred years later, the Vanderbilt Board of Trust adopted the following mission statement: “We reaffirm our belief in the unique and special contributions that Vanderbilt can make toward meeting the nation’s requirements for scholarly teaching, training, investigation, and service, and we reaffirm our conviction that to fulfill its inherited responsibilities, Vanderbilt must relentlessly pursue a lasting future and seek highest quality in its educational undertakings.”

Today as Vanderbilt pursues its mission, the university more than fulfills the Commodore’s hope. It is one of a few independent universities with both a quality undergraduate program and a full range of graduate and professional programs. It has a strong faculty of more than 2,000 full-time members and a diverse student body of about 10,000. Students from many regions, backgrounds, and disciplines come together for multidisciplinary study and research. To that end, the university is the fortunate recipient of continued support from the Vanderbilt family and other private citizens.

The 330-acre campus is about one and one-half miles from the downtown business district of the city, combining the advantages of an urban location with a peaceful, park-like setting of broad lawns, shaded paths, and quiet plazas.

Off-campus facilities include the Arthur J. Dyer Observatory, situated on a 1,131-foot hill six miles south.

The schools of the university offer the following degrees:

- **College of Arts and Science.** Bachelor of Arts.
- **Blair School of Music.** Bachelor of Music.
- **Divinity School.** Master of Divinity, Master of Theological Studies.
- **School of Engineering.** Bachelor of Engineering, Bachelor of Science, Master of Engineering.
- **Graduate School.** Master of Arts, Master of Fine Arts, Master of Liberal Arts and Science, Master of Science, Doctor of Philosophy.
- **Law School.** Master of Laws, Doctor of Jurisprudence.
- **School of Medicine.** Master of Education of the Deaf, Master of Laboratory Investigation, Master of Public Health, Master of Science in Applied Clinical Informatics, Master of Science in Clinical Investigation, Master of Science in Medical Physics, Master of Science (Speech-Language Pathology), Doctor of Audiology, Doctor of Medical Physics, Doctor of Medicine.
- **School of Nursing.** Master of Science in Nursing, Doctor of Nursing Practice.
- **Owen Graduate School of Management.** Master of Accountancy, Master of Business Administration, Master of Management in Health Care, Master of Marketing, Master of Science in Finance.
- **Peabody College.** Bachelor of Science, Master of Education, Master of Public Policy, Doctor of Education.

No honorary degrees are conferred.

Mission, Goals, and Values

Vanderbilt University is a center for scholarly research, informed and creative teaching, and service to the community and society at large. Vanderbilt will uphold the highest standards and be a leader in the

- quest for new knowledge through scholarship,
- dissemination of knowledge through teaching and outreach,
- creative experimentation of ideas and concepts.

In pursuit of these goals, Vanderbilt values most highly

- intellectual freedom that supports open inquiry,
- equality, compassion, and excellence in all endeavors.

Accreditation

Vanderbilt University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor’s, master’s, professional, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call (404) 679-4500, or visit sacscoc.org for questions about the accreditation of Vanderbilt University.

Please contact the commission only in relation to Vanderbilt’s noncompliance with accreditation requirements. Normal inquiries about admission requirements, educational programs, and financial aid should be directed to the university.
Life at Vanderbilt

Vanderbilt provides a full complement of auxiliary services to meet the personal needs of students, to make life on the campus comfortable and enjoyable, and to provide the proper setting for academic endeavor.

Graduate Student Resources

Graduate Student Council
The Graduate Student Council (GSC) exists to enhance the overall educational experience at Vanderbilt University by promoting the general welfare and concerns of the Graduate School student body. This is achieved through the creation of new programs and initiatives to provide opportunities for growth and interaction, as well as through communication with the Vanderbilt faculty and administration on behalf of graduate students. The GSC consists of elected representatives, standing committees, and an annually elected executive board. In the recent past, the GSC has helped change policies involving campus dining, free bus transportation, parking, and student health insurance. The GSC is also a member of the National Association of Graduate-Professional Students (NAGPS).

In addition to its representative function, the GSC also organizes a number of events and hosts/sponsors various projects during the year, including co-sponsoring seminars and panels with individual departments, organizing the Vanderbilt 3 Minute Thesis competition (spring semester), facilitating the Graduate Student Honor Council, planning community outreach activities, and offering many social opportunities. The GSC also awards travel grants to graduate students who wish to present their research at conferences throughout the year. All Vanderbilt Graduate School students are welcome and encouraged to attend GSC’s monthly meetings and to get involved. For more information, visit studentorgs.vanderbilt.edu/gsc.

Career Development for Graduate School Students
The Dean’s Office of the Graduate School is dedicated to helping students navigate the transition from degree to career. Guidance and professional development opportunities are offered throughout a Graduate School student’s program, in the form of individual advising, workshops, seminars, and Web-based resources. Topics range from creating an effective CV/resume, to interviewing skills, to establishing a network for both academic and non-academic career searches. For Ph.D.’s in the biomedical disciplines, the Office of Biomedical Research Education and Training (BRET) offers similar services. For Ph.D.’s in Peabody College, the Peabody Office of Professional and Graduate Education (POPGE) offers complementary resources. Additional resources for particular career interests are available through a campus partnership with the Career Center. Through these numerous services, students will find ample assistance for their career searches. For more information, visit my.vanderbilt.edu/gradcareer.

Graduate Development Network
The Graduate Development Network (GDN) is an informal network of faculty, administrators, and students at Vanderbilt University that seeks to facilitate the awareness and use of the many programs that can help students become productive and well-rounded scholars. The network’s website (vanderbilt.edu/gradschool/gdn) provides links to various offices and groups at Vanderbilt that support graduate student development. These offices and organizations also jointly sponsor a number of seminars, workshops, and similar events that support student development.

The Center for Teaching
The mission of the Center for Teaching is to promote university teaching that leads to meaningful student learning. The services of the center are available to all graduate students, including those teaching at Vanderbilt as teaching assistants (TAs) and instructors of record, as well as those who anticipate that teaching will be a part of their future careers.

Fall TA Orientation introduces participants to teaching at Vanderbilt, focusing on the information and skills necessary to take on TA roles in the classroom. Workshops and practice teaching sessions are led by experienced graduate student teaching assistants.

The Certificate in College Teaching has been designed to assist graduate students who wish to develop and refine their teaching skills. The certificate focuses on the research on how people learn and best teaching practices, and supports the university’s pursuit of excellence in teaching and learning. The certificate is ideal for graduate students whose goals are to become more effective educators and who want to prepare for future careers in higher education teaching.

The Blended and Online Learning Design (BOLD) Fellows Program helps graduate students in the STEM disciplines (science, technology, engineering, and mathematics) partner with faculty members to design and develop online modules for integration into a course. The teams implement these modules in existing classes and investigate their impact on student learning.

The Certificate in Humanities Teaching & Learning is a program for humanities graduate students that comprises a sequential seminar and practicum in which participants explore humanistic pedagogies and teaching historically underrepresented populations.

The Graduate Teaching Fellows and Teaching Affiliates Program provides graduate students the opportunity to work at the center, facilitating the programs offered to graduate students, consulting with TAs, and collaborating on teaching-related projects. For information and other services, please visit the Center for Teaching website at cft.vanderbilt.edu or call (615) 322-7290.
Other Campus Resources

Barnes & Noble at Vanderbilt
Barnes & Noble at Vanderbilt, the campus bookstore located at 2525 West End Avenue, offers textbooks (new, used, digital, and rental), computers, supplies, Nook e-readers, dorm accessories, licensed Vanderbilt apparel, and best-selling books. Students can order online or in-store and receive course materials accurately, conveniently, and on time. The bookstore features extended hours of operation and hosts regular special events. Visitors to the bookstore café can enjoy Starbucks coffees, sandwiches, and desserts while studying. Free customer parking is available in the 2525 garage directly behind the bookstore. For more information, visit vubookstore.com, follow twitter.com/BN_Vanderbilt, find the bookstore on Facebook at facebook.com/VanderbiltBooks, or call (615) 343-2665.

The Commodore Card
The Commodore Card is the Vanderbilt student ID card. It can be used to access debit spending accounts, VU meal plans, and campus buildings such as residence halls, libraries, academic buildings, and the Vanderbilt Recreation and Wellness Center.

ID cards are issued at the Commodore Card Office, 184 Sarratt Student Center, Monday through Friday, from 8:30 a.m. to 4:00 p.m. For more information, go to vanderbilt.edu/cardservices.

Eating on Campus
Vanderbilt Campus Dining operates several restaurants, cafes, and markets throughout campus that provide a variety of food. The two largest dining facilities are Rand Dining Center in Rand Hall (connected to Sarratt Student Center) and The Ingram Commons dining hall. Six convenience stores on campus offer grab-and-go meals, snacks, beverages, and groceries. All units accept the Commodore Card and Meal Plans. Graduate student Meal Plans are offered at a discount. For more information, hours, and menus, go to campusdining.vanderbilt.edu.

Housing
To support the housing needs of new and continuing graduate and professional students, the Office of Housing and Residential Education provides a web-based off-campus referral service (apphosta.its.vanderbilt.edu/housing/Main/). The referral service lists information about housing accommodations off campus. Cost, furnishings, and conditions vary greatly. For best choices, students seeking off-campus housing should visit the office or consult the website as early as possible for suggestions and guidance. The website includes advertisements by landlords looking specifically for Vanderbilt-affiliated tenants, as well as by Vanderbilt students looking for roommates. Listings are searchable by cost, distance from campus, number of bedrooms, and other parameters. Students may also post “wanted” ads seeking roommate or housemate situations. On-campus university housing for graduate or professional students is not available.

Change of Address
Students who change either their local or permanent mailing address are expected to notify the University Registrar immediately. Candidates for degrees who are not in residence should keep the school and the University Registrar informed of current mailing addresses. To change or update addresses, go to registrar.vanderbilt.edu/academicrec/address.htm.

Information Technology
Vanderbilt University Information Technology (VUIT) offers voice, video, data, computing, and conferencing services to Vanderbilt students, faculty, and staff. VUIT provides free antivirus downloads and malware prevention in many campus areas.

VUIT maintains and supports VUnet, the campuswide data network that provides access to the internet, and AccessVU, the authentication service that enables Vanderbilt users to securely identify themselves to many services on VUnet. Those services include YES, Your Enrollment Services; Brightspace; and Vmail, the university’s email system.

VUIT also partners with Sprint, Verizon, and AT&T to offer discounts for cellular phone service. For discount information see it.vanderbilt.edu/cellphone.

It is important to note that many wireless consumer electronic devices interfere with VUnet, and in worst-case circumstances, could even cause degradation to network service. These devices are prohibited and include, but are not limited to, routers, access points (APs), or AirPorts manufactured by companies such as Apple, Belkin, D-Link, and Linksys. Additionally, settings for smartphone hotspots and wireless connectivity for printers and other devices must be disabled to prevent interference with university wireless APs.

Vanderbilt offers all students low-cost and free-of-charge software, including Microsoft Office and Microsoft Windows. See softwarestore.vanderbilt.edu for a complete product catalog and more information.

Furthermore, VUIT provides various conferencing and collaboration services for students, including audio and video conferencing via a desktop or a Polycom bridge. Vanderbilt’s blog service offers WordPress Blogs at my.vanderbilt.edu. See it.vanderbilt.edu/services/collaboration for more information.

The Tech Hub is the help desk at Vanderbilt that provides information to students, faculty, and staff about VUnet and VUnet services. Its locations, hours, contacts, and other information can be found at it.vanderbilt.edu/techhub.

For more information on IT services and computing at Vanderbilt, go to it.vanderbilt.edu.

International Student and Scholar Services
International Student and Scholar Services (ISSS), located in the Student Life Center, fosters the education and development of nonimmigrant students and scholars to enable them to achieve their academic and professional goals and objectives. ISSS provides advice, counseling, and advocacy regarding immigration, cross-cultural, and personal matters. ISSS supports an environment conducive to international education and intercultural awareness via educational, social, and cross-cultural programs.

ISSS provides immigration advising and services, including the processing of immigration paperwork, to more than 1,500 international students and scholars. The office works with admission units, schools, and departments to generate
documented documentation needed to bring nonimmigrant students and scholars to the U.S. Further, ISSS keeps abreast of the regulations pertaining to international students and scholars in accordance with the Department of Homeland Security (Bureau of Citizenship and Immigration Services) and the Department of State. ISSS coordinates semiannual orientation programs for students and ongoing orientations for scholars, who arrive throughout the year.

To help promote connection between international students and the greater Nashville community, ISSS coordinates the First Friends program, which matches international students with Americans both on and off campus for friendship and cross-cultural exchange. The weekly World on Wednesday presentations inform, broaden perspectives, and facilitate cross-cultural understanding through discussions led by students, faculty, and staff. International Education Week in the fall provides the campus with additional opportunities to learn about world cultures and to celebrate diversity. The International Lens Film Series (iLens) brings more than forty international films to campus each year. ISSS provides a range of programs and activities throughout the year to address a variety of international student needs and interests. These programs include International Orientation Leaders and a selection of holiday parties. The Southern Culture Series is an opportunity for students to experience Southern culture in nearby cities such as Memphis, Chattanooga, and Atlanta.

**Obtaining Information about the University**

**Notice to current and prospective students:** In compliance with applicable state and federal law, the following information about Vanderbilt University is available:

- Institutional information about Vanderbilt University, including accreditation, academic programs, faculty, tuition, and other costs, is available in the catalogs of the colleges and schools on the Vanderbilt University website at [vanderbilt.edu/catalogs](http://vanderbilt.edu/catalogs).

Information about financial aid for students at Vanderbilt University, including federal and other forms of financial aid for students, is available from the Office of Student Financial Aid on the Vanderbilt University website at [vanderbilt.edu/financialaid](http://vanderbilt.edu/financialaid). The Office of Student Financial Aid is located at 2309 West End Avenue, Nashville, Tennessee 37203-1725, (615) 322-3591 or (800) 288-0204.

Information about graduation rates for students at Vanderbilt University is available on the Vanderbilt University website at [virg.vanderbilt.edu](http://virg.vanderbilt.edu). Select “Factbook,” then “Student,” then “Retention/Graduation Rates.” Paper copies of information about graduation rates may be obtained by writing the Office of the University Registrar, Vanderbilt University, PMB 407701, 2301 Vanderbilt Place, Nashville, Tennessee 37240-7701 or by calling (615) 322-7701. For more information, see “Confidentiality of Student Records” in this catalog.

**The Writing Studio**

The Writing Studio offers graduate students personal writing consultations, fifty-minute interactive discussions about writing. Trained writing consultants can act as sounding boards and guides for the development of arguments and the clarification of ideas. The focus of a consultation varies according to the individual writer and project. In addition to the standard fifty-minute consultations, the Writing Studio also offers dissertation writers the possibility of having extended appointments with the same consultant on an ongoing basis. Fifty-minute appointments can be scheduled online at [vanderbilt.edu/writing](http://vanderbilt.edu/writing). Extended appointments must be arranged in advance through [writingstudio@vanderbilt.edu](mailto:writingstudio@vanderbilt.edu) and are available on a first-come, first-served basis. Information about other programs for graduate students, like the journal article writing workshop and the annual dissertation writer’s retreat, can also be found at [vanderbilt.edu/writing](http://vanderbilt.edu/writing).

**Bishop Joseph Johnson Black Cultural Center**

The Bishop Joseph Johnson Black Cultural Center (BJJCCC) represents one of Vanderbilt University’s numerous efforts at acknowledging and promoting diversity. It does so by providing educational and cultural programming on the black experience for the entire Vanderbilt community. Dedicated in 1984, the center is named for the first African American student admitted to Vanderbilt University in 1953, Bishop Joseph Johnson (B.D. ’54, Ph.D. ’58).

One of the center’s aims is to provide cultural programming. It sponsors lectures, musical performances, art exhibitions, films, and discussions on African and African American history and culture. The center also provides an office space for a scholarly journal, the Afro-Hispanic Review, edited by Vanderbilt faculty and graduate students.

Another of the center’s aims is student support and development. The center provides meeting spaces for numerous Vanderbilt student groups, including the Black Student Alliance, Every Nation Campus Ministries, and Vanderbilt Spoken Word. The center works with students on a wide range of campus projects and community service opportunities. The center also serves as a haven for students, with opportunities for informal fellowship with other students of all levels as well as with faculty and staff.

One additional aim of the center is community outreach and service. To this end, the center reaches out to civic and
cultural activities for young people from the Metro Nashville Public Schools, the YMCA, and other community agencies. VU students serve as tutors and mentors to young people in the Edgehill community. The center also helps promote student recruitment by hosting various pre-college groups.

The center houses a computer lab, a small library, a seminar room, an auditorium, a student lounge area, and staff offices. The center is open to all Vanderbilt students, faculty, and staff for programs and gatherings.

Libraries

The Jean and Alexander Heard Library System

Vanderbilt University’s libraries are among the top research libraries in the nation, home to more than eight million items, including print publications, microfilm items, and digital collections. The libraries provide electronic access to tens of thousands of full-text journals and more than half a million e-books and other research resources accessible via the campus network, from 250 workstations in campus libraries, as well as authenticated access (VUnetID and e-password) from off campus. The libraries’ homepage receives more than 3,750,000 visits annually. Resources may be located through Acorn, the libraries’ online catalog, and through DiscoverLibrary, the libraries’ new information discovery tool.

The oldest manuscript in the collection dates from ca. 1300, and new publications are being added every day. Among the libraries’ collection strengths are the W. T. Bandy Center for Baudelaire and Modern French Studies, a comprehensive collection of materials on Charles Baudelaire and French literature and culture; the Southern Literature and Culture Collection; Latin American collections for Brazil, Colombia, the Andes, Mesoamerica, and Argentina; the Television News Archive, the world’s most extensive and complete archive of television news covering 1968 to the present; the Revised Common Lectionary, one of the first published Web-based resources of scriptural readings for the liturgical year; and the Global Music Archive, a multimedia reference archive and resource center for traditional and popular song, music, and dance of Africa and the Americas.

In partnership with faculty, library staff teach students valuable skills for locating and evaluating the latest information in a complex array of sources. Campus libraries with discipline-specific collections are home to professional librarians who provide expert support in that area of study. Online reference is available through the homepage. Options for individual study are complemented by group study spaces and instructional rooms, as well as learning commons and cafes. Exhibits throughout the libraries offer intellectual and creative insights that encourage students to see their own work in new ways. Students, faculty, and staff may come to the library to read in a cozy nook, meet friends for group study, grab a quick meal, or see an exhibit.

library.vanderbilt.edu

The Annette and Irwin Eskind Biomedical Library

The Eskind Biomedical Library (EBL) collects and provides access to materials to support the teaching, research, and service missions of Vanderbilt University Medical Center.

Margaret Cuninggim Women’s Center

As part of the Office of the Dean of Students, the Margaret Cuninggim Women’s Center leads co-curricular campus initiatives related to women’s and gender issues. The center partners with many departments, programs, and individuals across campus to raise awareness about the ways in which gender shapes and is shaped by our lived experiences. Because its aim is to make the Vanderbilt community more inclusive and equitable, the center encourages all members of the Vanderbilt community to take part in its events and resources.

The Women’s Center celebrates women and their accomplishments and fosters empowerment for people of all identities. The center offers individual support and advocacy around a variety of issues, including gender stereotyping, gender equity, leadership, parenting, body image, disordered eating, pregnancy and reproduction, sexual health, and more. The Women’s Center is open Monday through Friday, 8:00 a.m. to 5:00 p.m. and is located at 316 West Side Row. For more information, please call (615) 322-4843 or visit vanderbilt.edu/womenscenter.

Office of LGBTQI Life

As a component of Vanderbilt’s Office of the Dean of Students, the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI) Life office is a welcoming space for individuals of all identities and a resource for information and support about gender and sexuality. LGBTQI Life serves the entire Vanderbilt community through education, research, programming, support, and social events. The office also serves as a comfortable study and socializing space, as well as a connection point to the greater Nashville LGBTQI community. In addition, LGBTQI Life conducts tailored trainings and consultations for the campus and community and coordinates the Safe Zone Ally program. The Office of LGBTQI Life is located in the K. C. Potter Center, Euclid House, 312 West Side Row. For more information, please visit vanderbilt.edu/lgbtqi.

Office of the University Chaplain and Religious Life

The Office of the University Chaplain and Religious Life provides opportunities to explore and practice religion, faith, and spirituality and to more deeply understand one’s personal values and social responsibility via educational programming, encounters with various faith perspectives, and engagement with religious and spiritual communities. The office welcomes and serves all students, faculty, and staff and provides an intellectual home and ethical resource for anyone in the Vanderbilt community seeking to clarify, explore, and deepen understanding of their lives and/or faith.

Recognizing the importance of exploring one’s faith in community, the office facilitates opportunities for individuals of a shared faith to worship/practice their particular religious tradition. Whether guided by one of our affiliated chaplains or a student-run religious organization, these groups foster a sense of community and common values. For a complete listing of campus religious groups, resources, services, and programming opportunities, visit vanderbilt.edu/religiouslife.

Schulman Center for Jewish Life

The 10,000-square-foot Ben Schulman Center for Jewish Life is the home of Vanderbilt Hillel. The goal of the center is to provide a welcoming community for Jewish students at Vanderbilt and to further religious learning, cultural awareness, and social engagement. Vanderbilt Hillel is committed...
to enriching lives and enhancing Jewish identity. It provides a home away from home, where Jews of all denominations come together, united by a shared purpose. The Schulman Center is also home to Grin’s Cafe, Nashville’s only kosher and vegetarian restaurant. For further information about the Schulman Center, please call (615) 322-8376 or email hillel@vanderbilt.edu.

Parking, Vehicle Registration, and Alternative Transportation
Parking space on campus is limited. Motor vehicles operated on campus at any time by students, faculty, or staff must be registered with VUPD Parking Services located in the Wesley Place garage. A fee is charged. Parking regulations are published annually and are strictly enforced. More information is available at vanderbilt.edu/parking.

Bicycles must be registered with the Vanderbilt University Police Department.

All graduate and professional students can ride to and from the Vanderbilt campus free of charge on Nashville’s Metropolitan Transit Authority buses. To use this service, a valid student ID card is required for boarding the bus.

Project Safe Center
The Project Safe Center partners with students, faculty, and staff to create a campus culture that rejects sexual violence and serves as a resource for all members of the Vanderbilt community. Operating under the auspices of the Office of the Dean of Students, the Project Safe Center provides support to survivors of sexual violence and engages the campus community in bystander intervention efforts and sexual assault prevention.

Green Dot, a bystander intervention program used by colleges and communities nationwide, an online education module addressing power-based violence, and a variety of programs and presentations on consent, healthy relationships, and violence prevention are available through the Project Safe Center. A 24-hour support hotline answered by Project Safe’s victim resource specialists is available at (615) 322-SAFE (7233).

The Project Safe Center located at 304 West Side Row is open Monday through Friday, 8:00 a.m. to 5:00 p.m. For more information, please call (615) 875-0660 or visit medschool.vanderbilt.edu/pcc.

Psychological and Counseling Center
As part of the Vanderbilt University Medical Center, the PCC supports the mental health needs of all students to help them reach their academic and personal goals. Highly skilled and multidisciplinary staff collaborates with students to provide evidence-based treatment plans tailored to each individual’s unique background and needs. The PCC also emphasizes prevention through outreach and consultation focused on the development of the skills and self-awareness needed to excel in a challenging educational environment.

The PCC’s psychologists, licensed counselors, and psychiatric medical providers are available to any Vanderbilt student and address a range of student needs including stress management, crisis intervention, substance abuse counseling, management of medications, individual counseling, group counseling, biofeedback, emergency assessments, and psychiatric assessment and treatment. The PCC provides a team approach to the care of students with eating disorders and students who have experienced trauma as well as students needing both counseling and medication management. There is an on-call provider after hours and on weekends for emergency calls.

The PCC provides screening and full assessment when indicated for ADHD and learning disorders as well as assessment and support for reading and study skills.

A prevention program regarding substance use called BASICS is provided by the PCC. Students who have questions about their level of use may request an assessment through BASICS to learn more about risk related to substance use.

The PCC also houses a Mind Body Lab. This room is designed with the objective of enhancing mindfulness by providing tools to manage stress, increase personal resilience, and promote compassion and academic success. Students may book a forty-five-minute session in the PCC Mind Body Lab by calling the PCC at (615) 322-2571 or by stopping by the front desk.

Students are encouraged to make contact with the PCC prior to the start of the school year if they have a history of mental health care needs. This will help facilitate the transition of care and ensure that students are fully aware of PCC resources. Contact the center at (615) 322-2571 for more information.

There is no charge for services with the exceptions of reduced fees for LD/ADHD screening and assessment. Over the course of a year, approximately 20 percent of the Vanderbilt student population will seek out the services of the PCC.

Throughout the year, the PCC outreach coordinator and other PCC staff also produce presentations, including educational programs, thematic presentations, and special events, focused on education of the Vanderbilt community about mental health issues and resources. The PCC is proud to provide a program focusing on suicide prevention and mental health awareness at Vanderbilt called MAPS: Mental Health Awareness and the Prevention of Suicide.

For more information, visit medschool.vanderbilt.edu/pcc.

Student Health Center
The Student Health Center provides primary care services for students and is staffed by physicians, nurse practitioners, nurses, and a lab technician. The Student Health Center provides services similar to those provided in a private physician’s office or HMO, including routine medical care, specialty care (e.g., nutrition and sports medicine), and some routine lab tests. Most of the services students receive at the Student Health Center are pre-paid, but those services that are not are the responsibility of students to coordinate with their health insurance.

When the university is in session, during fall and spring semesters, the Student Health Center is open Monday through Friday from 8:00 a.m. to 4:30 p.m., and Saturdays from 8:30 a.m. to noon. Students should call ahead to schedule an appointment at (615) 322-2427. Students with urgent problems will be seen on a same-day basis. They will be given an appointment that day, or “worked in” on a first-come, first-served basis if no appointments are available.

Emergency consultations services (at (615) 322-2427) are available 24 hours a day, 7 days a week from on-call professionals. For more detailed information on the services available at the Student Health Center and information on other health-related topics, please visit the Student Health Center website at medschool.vanderbilt.edu/student-health.
**Immunization Requirements**

The State of Tennessee requires certain immunizations for all students on university campuses. As such, Vanderbilt University will block student registration for those who are not in compliance with the requirements.

The requirements include:

1. **Varicella vaccine** (two injections) is required for all students who have not had documented chickenpox history. Positive titer results are also accepted.
2. **Measles, mumps, and rubella (MMR)** (2 injections) required for incoming students. Positive titer results are also accepted.

The Student Health Center requires all incoming students to complete a Health Questionnaire that includes further information regarding the state-mandated vaccinations, as well as information on other strongly recommended vaccinations.

Information regarding this Health Questionnaire is communicated to students by email after admission to Vanderbilt University. This Health Questionnaire or official immunization documents must be returned to the Student Health Center by May 15 with vaccination information.

Students should go to medschool.vanderbilt.edu/student-health/immunization-requirements in order to access information on how to upload their documentation via the secure student health portal.

**Student Injury and Sickness Insurance Plan**

All students registered in degree programs for 4 or more credit hours, or who are actively enrolled in research courses (including but not limited to dissertation or thesis courses) that are designated by Vanderbilt University as full-time enrollment are required to have health insurance coverage. The university offers a sickness and injury insurance plan that is designed to provide hospital, surgical, and major medical benefits. A brochure explaining the limits, exclusions, and benefits of insurance coverage is available to students online at gallagherstudent.com/vanderbilt or medschool.vanderbilt.edu/student-health/student-health-insurance.

The annual premium is in addition to tuition and is automatically billed to the student’s account. Coverage extends from August 12 until August 11 of the following year, whether a student remains in school or is away from the university.

A student who does not want to subscribe to the insurance plan offered through the university must complete an online waiver process at gallagherstudent.com/vanderbilt. This process must be completed by August 1 for students enrolling in the fall for annual coverage. Newly enrolled students for the spring term must complete the online waiver process by January 4. The online waiver process indicating comparable coverage must be completed every year by August 1 in order to waive participation in and the premium for the Student Injury and Sickness Insurance Plan.

**Family Coverage**: Students who want to obtain coverage for their families (spouse, children, or domestic partner) may do so at gallagherstudent.com/vanderbilt. Additional premiums are charged for family health insurance coverage and cannot be put on a student’s VU account.

**International Student Coverage**

International students and their dependents residing in the United States are required to purchase the university's international student injury and sickness insurance. If you have other comparable insurance and do not wish to participate in the Student Injury and Sickness Insurance Plan offered through the university, you must complete an online waiver process (gallagherstudent.com/vanderbilt) indicating your other insurance information. This online waiver process must be completed no later than September 7 or you will remain enrolled in the plan offered by the university and will be responsible for paying the insurance premium. This insurance is required for part-time as well as full-time students.

**Services for Students with Disabilities**

Vanderbilt is committed to the provisions of the Rehabilitation Act of 1973 and Americans with Disabilities Act as it strives to be an inclusive community for students with disabilities. Students seeking accommodations for any type of disability are encouraged to contact the Equal Opportunity, Affirmative Action, and Disability Services Department. Services include, but are not limited to, extended time for testing, assistance with locating sign language interpreters, audiorecorded textbooks, physical adaptations, notetakers, and reading services. Accommodations are tailored to meet the needs of each student with a documented disability. Specific concerns pertaining to services for people with disabilities or any disability issue should be directed to the Disability Program Director, Equal Opportunity, Affirmative Action, and Disability Services Department (EAD), PMB 401809, 2301 Vanderbilt Place, Nashville, Tennessee 37240-1809; phone (615) 322-4705 (V/TDD); fax (615) 343-0671; vanderbilt.edu/ead.

**Nondiscrimination, Anti-Harassment, and Anti-Retaliation**

The Equal Opportunity, Affirmative Action, and Disability Services Department investigates allegations of prohibited discrimination, harassment, and retaliation involving members of the Vanderbilt community. This includes allegations of sexual misconduct and other forms of power-based personal violence. Vanderbilt’s Title IX coordinator is Anita Jenious, EAD director.

If you believe that a member of the Vanderbilt community has engaged in prohibited discrimination, harassment, or retaliation, please contact the EAD. If the offense is criminal in nature, you may file a report with Vanderbilt University Police Department (VUPD).

The EAD also facilitates interim accommodations for students impacted by sexual misconduct and power-based personal violence. Some examples of interim accommodations include stay-away orders, adjusted course schedules, and housing changes.

Specific concerns pertaining to prohibited discrimination, harassment, or retaliation, including allegations of sexual misconduct and other forms of power-based personal violence, should be directed to the Equal Opportunity, Affirmative Action, and Disability Services Department (EAD), PMB 401809, 2301 Vanderbilt Place, Nashville, Tennessee 37240-1809; phone (615) 322-4705 (V/TDD); fax (615) 343-0671; vanderbilt.edu/ead.
Student Records (Family Educational Rights and Privacy Act)

Vanderbilt University is subject to the provisions of federal law known as the Family Educational Rights and Privacy Act (also referred to as FERPA). This act affords matriculated students certain rights with respect to their educational records. These rights include:

1. The right to inspect and review their education records within 45 days of the day the University receives a request for access. Students should submit to the University Registrar written requests that identify the record(s) they wish to inspect. The University Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the University Registrar does not maintain the records, the student will be directed to the University official to whom the request should be addressed.

2. The right to request the amendment of any part of their education records that a student believes is inaccurate or misleading. Students who wish to request an amendment to their educational record should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the student will be notified of the decision and advised of his or her right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records to third parties, except in situations that FERPA allows disclosure without the student’s consent. These exceptions include:
   - Disclosure to school officials with legitimate educational interests. A “school official” is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including University law enforcement personnel and health staff); contractors, consultants, and other outside service providers with whom the University has contracted; a member of the Board of Trust; or a student serving on an official University committee, such as the Honor Council, Student Conduct Council, or a grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities.
   - Disclosure to parents if the student is a dependent for tax purposes.
   - Disclosure to appropriate individuals (e.g., parents/guardians, spouses, housing staff, health care personnel, police, etc.) where disclosure is in connection with a health or safety emergency and knowledge of such information is necessary to protect the health or safety of the student or other individuals.
   - Disclosure to a parent or legal guardian of a student, information regarding the student’s violation of any federal, state, or local law, or of any rule or policy of the institution, governing the use or possession of alcohol or a controlled substance if the University has determined that the student has committed a disciplinary violation with respect to the use or possession and the student is under the age of 21 at the time of the disclosure to the parent/guardian.

FERPA provides the university the ability to designate certain student information as “directory information.” Directory information may be made available to any person without the student’s consent unless the student gives notice as provided for, below. Vanderbilt has designated the following as directory information: the student’s name, address, telephone number, email address, student ID photos, major field of study, school, classification, participation in officially recognized activities and sports, weights and heights of members of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student, and other information that would not generally be considered harmful or an invasion of privacy if disclosed. Any student who does not wish disclosure of directory information should notify the University Registrar in writing. No element of directory information as defined above is released for students who request nondisclosure except as required by statute.

The request for nondisclosure does not apply to class rosters in online class management applications, or to residential rosters—or rosters of groups a student may join voluntarily—in online, co-curricular engagement applications, or rosters of other information on the websites of student organizations that a student may join. Neither class rosters in online class management applications, nor residential rosters in online co-curricular engagement applications, are available to the public.

As of January 3, 2012, the U.S. Department of Education’s FERPA regulations expand the circumstances under which students’ education records and personally identifiable information (PII) contained in such records—including Social Security Numbers, grades, or other private information—may be accessed without consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities (“Federal and State Authorities”) may allow access to student records and PII without consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is “principally engaged in the provision of education,” such as early childhood education and job training, as well as any program that is administered by an education agency or institution.

Second, Federal and State Authorities may allow access to education records and PII without consent, to researchers performing certain types of studies, in certain cases even when the University objects to or does not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the third parties that they authorize to receive PII, but the Authorities need not maintain direct control over the third parties.

In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without student consent, PII from education records, and may track student participation in education and other programs by linking such PII to other personal information that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

If a student believes the university has failed to comply with FERPA, he or she may file a complaint using the Student Complaint and Grievance Procedures as outlined in the Student Handbook. If dissatisfied with the outcome of this procedure, students may file a written complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-5920.

Questions about the application of the provisions of the Family Educational Rights and Privacy Act should be directed to the University Registrar or to the Office of General Counsel.

Vanderbilt Directory

Individual listings in the online People Finder Directory consist of the student’s full name, Vanderbilt email address, and campus mailing address (if available). Students may elect to add additional contact information to their listings, including school, academic classification, local phone number,
local address, permanent address, cellphone, pager, and fax numbers. Student listings in the People Finder Directory are available to the Vanderbilt community via login ID and e-password. Students may choose to make their online People Finder listings available to the general public (i.e., viewable by anyone with access to the internet), or to block individual directory items. Students who have placed a directory hold with the University Registrar will not be listed in the online directory.

Directory information should be kept current. Students may report address changes, emergency contact information, and missing person contact information via the web by logging in to YES (Your Enrollment Services) https://yes.vanderbilt.edu and clicking on the Address Change link.

Official University Communications

Certain federal statutes require that information be delivered to each student. Vanderbilt delivers much of this information via email. Official electronic notifications, including those required by statutes, those required by university policy, and instructions from university officials, will be sent to students’ Vanderbilt email addresses: user.name@vanderbilt.edu Students are required to be familiar with the contents of official university notifications, and to respond to instructions and other official correspondence requiring a response. Some messages will include links to the YES Communications Tool, which is a secure channel for official communication of a confidential nature.

The university makes every effort to avoid inundating students with nonessential email (often called “spam”), and maintains separate lists from which students may unsubscribe for announcements of general interest.

Prior Degrees

It is the policy of Vanderbilt University to verify prior educational credentials for all admitted students who intend to matriculate. All matriculated students must provide official copies of transcripts and any other required supporting documentation to Vanderbilt University as part of the prior degree verification process. The Office of the University Registrar will review transcripts and other supporting documentation for authenticity and to confirm degrees earned prior to matriculation at Vanderbilt. Offers of admission are contingent on a student’s providing the required documentation. Students who are not able to provide evidence of prior degrees will not be permitted to register for subsequent terms and may be subject to dismissal from the university.

University Courses

By tackling pressing real-world problems and addressing big questions, University Courses educate the whole student and promote lifelong learning. The courses leverage the natural synergies across Vanderbilt’s ten schools and colleges, giving students the opportunity to reach beyond their area of study and interact with faculty at the intersection of disciplines. Each course promotes trans-institutional learning while providing opportunities to embrace diverse perspectives. For more information, visit vu.edu/university-courses.

Vanderbilt Child and Family Center

The Vanderbilt Child and Family Center supports the health and productivity of the Vanderbilt community by providing resource and referral services and quality early childhood education and care to the children of faculty, staff, and students. The center’s website at childandfamilycenter.vanderbilt.edu provides information concerning child care, elder care, summer camps, tutoring services, and school-age child care. Care.com and the Vanderbilt Sitter Service provide back-up care options for dependents of all ages and evening, night, and weekend care.

The Child Care Center serves children ages six weeks through five years. Applications for the waiting list may be downloaded from the website. The Family Center offers a monthly lunchtime series, Boomers, Elders, and More, and a caregiver support group.

Vanderbilt University Police Department

The Vanderbilt University Police Department, (615) 322-2745, is a professional law enforcement agency dedicated to the protection and security of Vanderbilt University and its diverse community (police.vanderbilt.edu).

The Vanderbilt University Police Department comes under the charge of the Office of the Vice Chancellor for Administration. As one of Tennessee’s larger law enforcement agencies, the Vanderbilt University Police Department provides comprehensive law enforcement and security services to all components of Vanderbilt University including the academic campus, Vanderbilt University Medical Center, Vanderbilt Health at One Hundred Oaks, and a variety of university-owned facilities throughout the Davidson County area.

The Police Department includes a staff of more than one hundred people, organized into three divisions under the Office of the Associate Vice Chancellor and Chief of Police: Operations Division (Main Campus, Medical Center, and 100 Oaks Precincts), Administrative Division, and Auxiliary Services Division. All of Vanderbilt’s commissioned police officers have completed officer training at a state-certified police academy and are required to complete on-the-job training as well as attend annual in-service training. Vanderbilt police officers hold Special Police Commissions and have the same authority as that of a municipal law enforcement officer, while on property owned by Vanderbilt, on adjacent public streets and sidewalks, and in nearby neighborhoods. When a Vanderbilt student is involved in an on-campus offense, police officers may assist with the investigation in cooperation with local, state, or federal law enforcement. The department also employs non-academy-trained officers called community service officers (commonly referred to as CSOs) who lend assistance 24/7 to the Vanderbilt community through services that include providing walking escorts, providing jump starts, and unlocking cars. For non-emergency assistance from a community service officer, dial (615) 322-2745 (2-2745 from an on-campus extension).

The Vanderbilt University Police Department provides several services and programs to members of the Vanderbilt community:

Vandy Vans—The Vanderbilt University Police Department administers the Vandy Vans escort system at Vanderbilt University. The Vandy Vans escort system provides vehicular escorts to designated locations on campus. The service consists of vans that operate from 5:00 p.m. to 5:00 a.m. GPS technology allows students to track Vandy Vans on their route via computer or mobile phone, and to set up text message alerts to let them know when a van will be arriving at their stop.

Stop locations were chosen based on location, the accessibility of a secure waiting area, and student input. Signs,
freestanding or located on existing structures, identify each stop. A walking escort can be requested to walk a student from his/her stop to the final destination. A van is also accessible to students with mobility impairments. For complete information about the Vandy Vans service, including routes, stops, and times, please visit vandyvans.com or call (615) 332-2554.

As a supplement to the Vandy Vans service, walking escorts are available for students walking to and from any location on campus during nighttime hours. Walking escorts are provided by VUPD officers. The telephone number to call for a walking escort is (615) 421-8888, or 1-8888 from a campus phone, after which, a representative from VUPD will be dispatched to the caller's location, or to a designated meeting point to accompany the caller to his or her destination.

Emergency Phones—Emergency telephones (Blue Light Phones) are located throughout the university campus, Medical Center, and 100 Oaks.

Each phone has an emergency button that when pressed automatically dials the VUPD Communications Center. An open line on any emergency phone will activate a priority response from an officer. An officer will be sent to check on the user of the phone, even if nothing is communicated to the dispatcher. Cooperation is essential to help us maintain the integrity of the emergency phone system. These phones should be used only for actual or perceived emergency situations. An emergency response can also be activated by dialing 911 from any campus phone. Cellphone users can dial (615) 421-1911 to summon an emergency response on campus. Cellphone users should dial 911 for off-campus emergencies. Callers should be prepared to state the location from which they are calling.

Security Notices—In compliance with the U.S. Department of Higher Education and the Jeanne Clery Act, Security Notices are issued to provide timely warning information concerning a potentially dangerous situation on or near Vanderbilt University. This information is provided to empower our students and employees with the information necessary to make decisions or take appropriate actions concerning their own personal safety. Security Notices are distributed throughout Vanderbilt to make community members aware of significant crimes that occur at the university. They are distributed through Vanderbilt email lists and through the department's webpage, police.vanderbilt.edu/crime-info/crime-alerts.

Educational and Assistance Programs—The Crime Prevention Unit of Vanderbilt University Police Department offers programs addressing issues such as sexual assault, domestic violence, workplace violence, personal safety, RAD (Rape Aggression Defense) classes, and victim assistance. VUPD provides additional services including property registration (for bikes, laptops, etc.), lost and found, weapons safekeeping, and Submit a Crime Tip. For further information on available programs and services, call (615) 322-7846 or visit police.vanderbilt.edu.

Additional information on security measures and crime statistics for Vanderbilt is available from the Vanderbilt University Police Department, 2800 Vanderbilt Place, Nashville, Tennessee 37212. Information is also available at police.vanderbilt.edu.

Annual Security Report—The Vanderbilt University Annual Security Report is published each year to provide you with information on security-related services offered by the university and campus crime statistics in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act and the Tennessee College and University Security Information Act.

This booklet is prepared with information provided by the Nashville Metropolitan Police Department, the Department of Student Athletics, Office of the Dean of Students, the Office of Housing and Residential Education, and the Vanderbilt University Police Department. It summarizes university programs, policies, and procedures designed to enhance personal safety for everyone at Vanderbilt.

A copy of this report may be obtained by writing or calling the Vanderbilt University Police Department, 2800 Vanderbilt Place, Nashville, Tennessee 37212 or by telephone at (615) 343-9750. This report may also be obtained on the website at police.vanderbilt.edu/annual-security-report.

Extracurricular Activities

Student Centers

A variety of facilities, programs, and activities are provided in five separate student center locations—Alumni Hall, The Commons Center, Kissam Center, Sarratt Student Center|Rand Hall, and the Student Life Center.

Sarratt Student Center|Rand Hall is the main student center hub, housing a 300-seat cinema, art gallery, art studios, multicultural space, rehearsal rooms, large lounge spaces, large and small meeting spaces, and a courtyard. The facility is also home to Vanderbilt Student Communications, radio station, TV station, Last Drop Coffee Shop, and the Pub at Overcup Oak restaurant. Rand Hall houses the Rand Dining Center, campus store, student-operated businesses, the Anchor (student organization space), a multipurpose venue, meeting and seminar rooms, plus large, open lounge space. Some of the offices located in Sarratt Student Center|Rand Hall include the Dean of Students, Greek Life, Leadership, and the Office of Active Citizenship and Service. Also included in this facility is a United States Postal Service office.

The Vanderbilt Student Life Center is the university’s community keystone. It is both the fulfillment of students’ vision to have a large social space on campus and a wonderful complement to Sarratt Student Center|Rand Hall. The Student Life Center has more than 18,000 square feet of event and meeting space, including the 9,000-square-foot Commodore Ballroom, which is one of the most popular spaces to have events on campus. The center is also home to the Career Center, Commencement and Special Events, International Student and Scholar Services, Global Education Office, and Global Support Services.

The Commons Center is the community crossroads of The Ingram Commons living and learning community. It has it all: the Dining Hall and great food; a living room with a concert- grade grand piano, and the occasional live musical performance; a small rec room with cardio equipment, free weights, and weight machines; meeting and study rooms; and academic support services like the Writing Studio, the Career Center, and the CASPAR premajor advising center. The third floor of The Commons Center is the home of the Department of Political Science.

Alumni Hall was the original student center on campus when the building opened in 1925. Re-opened in fall 2013 after a yearlong renovation that transformed every space in the facility, Alumni Hall has returned to its role as a student center after serving other purposes over the years. In the newly renovated Alumni Hall, students now have access to an exercise room as well as several new meeting and event spaces and the
Bamboo Bistro. Two departments call Alumni Hall home, the Vanderbilt Institute for Digital Learning and, most recently, the Vanderbilt Graduate School.

Opened in fall 2014, Kissam Center is the fifth student center, and is part of the new Warren College and Moore College residential living-learning communities. A completely new facility, Kissam Center is home to more meeting and event spaces as well as the Kissam Market and Kissam Kitchen.

**Recreation and Sports**

Physical education is not required for graduate and professional students, but almost two-thirds of Vanderbilt University students participate in club sports, intramurals, activity classes, or other programs offered at the Vanderbilt Recreation and Wellness Center (VRWC). The large variety of programs available for meeting students’ diverse interests include: thirty-two club sports teams; forty intramural sports (softball, flag football, basketball, table tennis, and soccer); an aquatics program offering swim lessons for all ages and abilities. Red Cross lifeguarding and CPR classes are also available. If being outside is more your style, you can choose from one of more than twenty adventure trips offered each semester or create your own adventure trip with tips and gear from the Outdoor Recreation staff. There are more than eighty group fitness classes a week and a variety of wellness offerings from “learn to box” to healthy eating through Vandy Cooks in the demonstration kitchen, Personalized Nutrition Coaching, and Nutrition Minute grab-and-go information on a variety of nutrition topics.

The VRWC is a 289,000-square-foot facility that houses a 25-yard, 15-lane swimming pool; four courts for basketball, volleyball, and badminton; five racquetball and two squash courts; a four-lane bowling alley; five group fitness classrooms, more than 14,000 square feet of weight/fitness room space; rock-climbing wall; mat room; seven multipurpose rooms; locker rooms; and a 120-yard turf field surrounded by a 300-meter track in the indoor field house. VRWC’s exterior spaces include a sand volleyball court and more than seven acres of field space including three natural grass fields and one turf field.

All students pay a mandatory recreation fee which supports the facilities, fields, and programs (see the chapter on Financial Information). Spouses must also pay a fee to use the facilities.

For additional information, please visit vanderbilt.edu/recreationandwellnesscenter.
Medical Education at Vanderbilt

The Vanderbilt University School of Medicine administers degree programs that provide students with the knowledge, skills, and attitudes they will need to practice safe, effective, ethical, evidence-based, and patient-centered health care in the twenty-first century, and to contribute to the knowledge base supporting it.

Mission of the School

The mission of Vanderbilt University School of Medicine is to improve human health. To achieve this goal, we will:

- Prepare physicians, scientists, and educators for positions of worldwide leadership;
- Discover and disseminate new knowledge that advances understanding of health and disease;
- Provide compassionate, personalized patient care of the highest quality in service to our local, national, and global communities;
- Embrace a culture of lifelong learning, innovation, and continuous improvement;
- Create a diverse and broadly inclusive community of faculty, staff, and students that enriches our learning environment and ensures excellence in research and patient care;
- Nurture and protect Vanderbilt’s unique legacy of cooperation, collegiality, and mutual respect;
- Foster the personal and professional growth of all members of the Vanderbilt community, as we continuously strive to realize full potential.

The school’s mission includes the education of physicians at all levels of their professional experience: medical school; postgraduate education, including basic science and clinical training; and continuing education and professional development for the practicing physician. In addition several master’s level and two additional doctoral degrees in health care professions are offered.

Faculty members teach the practice of exemplary patient care at all levels; model programs of health care delivery, at primary, secondary, and tertiary levels; and fulfill the school’s responsibility for community service.

In addition to teaching, members of the medical school faculty have a complementary responsibility to generate new knowledge through research. At Vanderbilt, research encompasses basic scientific questions, issues in clinical care, questions related to the health care system, and scholarship in the medical education process itself. Vanderbilt is recognized as one of the leaders in research among medical schools in the United States.

History of the School

The first diplomas issued by Vanderbilt University were to sixty-one doctors of medicine in February of 1875, thanks to an arrangement that recognized the University of Nashville’s medical school as serving both institutions. Thus, Vanderbilt embraced a fully-organized and functioning medical school even before its own campus was ready for classes in October of that year.

The arrangement continued for twenty more years, until the school was reorganized under control of the Board of Trust. In the early days, the School of Medicine was owned and operated as a private property of the practicing physicians who composed the faculty and received the fees paid by students—a system typical of medical education in the United States at the time. Vanderbilt made no financial contribution to the school’s support and exercised no control over admission requirements, the curriculum, or standards for graduation. After reorganization under the Vanderbilt Board in 1895, admission requirements were raised, the course was lengthened, and the system of instruction was changed to include laboratory work in the basic sciences.

The famous report of Abraham Flexner, published by the Carnegie Foundation in 1910 and afterward credited with revolutionizing medical education in America, singled out Vanderbilt as “the institution to which the responsibility for medical education in Tennessee should just now be left.” Large grants from Andrew Carnegie and his foundation, and from the Rockefeller-financed General Education Board, enabled Vanderbilt to carry out the recommendations of the Flexner Report. (These two philanthropies, with the addition of the Ford Foundation in recent years, have contributed altogether more than $20,000,000 to the School of Medicine since 1911.) The reorganized school drew upon the best-trained scientists and teachers in the nation for its faculty. The full benefits of reorganization were realized in 1925 when the school moved from the old South Campus across town to the main campus, thus integrating instruction in the medical sciences with the rest of the university. The school’s new quarters were called “the best arranged combination school and hospital to be found in the United States.”

Rudolph A. Light Hall, completed in 1977, is a sophisticated facility for medical education and other student activities. The seven-story structure contains 209,000 square feet of space housing the latest in laboratory equipment, audio-visual and electronic teaching tools, and multi-purpose classroom space. The second-floor student lounge is designed to foster medical student interaction and to permit informal educational experiences—leading to the development of physicians grounded in the sciences but enlightened by humanitarian interests and understanding.


Until April 2016, Vanderbilt University owned and operated several hospitals and clinics collectively known as Vanderbilt University Medical Center, including Vanderbilt University Hospital, Vanderbilt Psychiatric Hospital, and Monroe Carell Jr. Children’s Hospital at Vanderbilt, and their associated clinics. Effective April 30, 2016, Vanderbilt University conveyed the clinical assets used in the operation of Vanderbilt University Medical Center to a newly formed, not-for-profit, tax-exempt corporation, which is similarly named Vanderbilt University Medical Center. Vanderbilt University Medical Center now operates independently of Vanderbilt University. It is clinically and academically affiliated with Vanderbilt University.
Vanderbilt University Student Handbook

In addition to the policies in this School of Medicine Catalog, the university’s Student Handbook applies to students in the School of Medicine. The Student Handbook may be found at vanderbilt.edu/student_handbook, and covers university policies and regulations, student conduct, alcohol and controlled substances, student engagement, and sexual misconduct and intimate partner violence, among other topics.

From the Students of Vanderbilt University School of Medicine: The Vanderbilt University Statement of the Honor Code

Vanderbilt University students pursue all academic endeavors with integrity. They conduct themselves honorably, professionally, and respectfully in all realms of their studies in order to promote and secure an atmosphere of dignity and trust. The keystone of our honor system is self-regulation, which requires cooperation and support from each member of the University community.

The School of Medicine Honor System

The Honor System at Vanderbilt University School of Medicine is conducted by students for the benefit of students, faculty, staff, and patients. The Honor System, as delineated by the Honor Code, requires students to conduct themselves with honor in all aspects of their lives. By demanding great responsibility, the Honor System fosters an environment of freedom and trust that benefits the entire Medical School. In signing this statement upon enrollment, each student agrees to participate in the Honor System and abide by its code.

As representatives of the Vanderbilt University School of Medicine and the medical professions, students pledge to conduct themselves with honor and integrity at all times. The Promotion Committees and the Honor Council serve to protect the environment of trust created by this Honor System. The Promotion Committees periodically evaluate each student’s performance with special attention to work and conduct appropriate for professional practice. The Honor Council serves to educate members of the student body about their responsibilities as outlined in the written code; to conduct investigations and hearings regarding reported violations of the code; and to decide the nature of penalties deemed appropriate for such violations. Decisions reached by the Honor Council do not pertain to the discussion of reported violations by the Promotion Committees, as the Committees may examine these incidents in the larger context of a student’s general performance.

The School of Medicine Honor Code

All students pledge to conduct themselves honorably, professionally, and respectfully in all realms and aspects of medical education and patient care. Under the Honor System, the student pledges that he or she neither gives nor receives unauthorized aid nor leaves unreported any knowledge of such aid given or received by any other student. Unauthorized aid includes the use of any examinations from previous semesters that have not been pre-approved by the course director and made readily available to all other students taking the course. This pledge applies to all coursework, examinations, presentations, or any other activities required for the awarding of any of the graduate degrees offered by the school. This pledge encompasses all clinical work involving patient care and representations of patient care information. Any student taking a course in the School of Medicine, regardless of where registered, is under the jurisdiction of the Honor Council of Vanderbilt University School of Medicine (VUSM) and subject to the penalties it may impose.

Constitution

Article I—Name

The name of the council shall be the Honor Council of Vanderbilt University School of Medicine.

Article II—Purpose

1. To receive and evaluate evidence of Honor Code violations and to assure against false accusations.
2. To determine guilt or innocence.
3. To forward to the dean of the School of Medicine appropriate penalties for the guilty.

Article III—Membership and Officers

1. A faculty member shall be appointed by the dean of the School of Medicine as the Honor Council adviser. His/her role includes ensuring that all the rules are followed. In the case of an accusation, he/she will decide with the co-chairs of the Honor Council whether there is sufficient evidence to proceed with a trial after a formal investigation has been carried out.
2. The Honor Council of the School of Medicine shall be composed of representation from all degree-granting graduate programs under the administrative charge of the school. Currently, this includes Doctor of Audiology (Au.D.), Master of Education of the Deaf (M.D.E.), Master of Science Speech-Language Pathology (M.S.-S.L.P.), Doctor of Medical Physics (D.M.P.), Master of Science in Medical Physics (M.S.M.P.), Master of Laboratory Investigation (M.L.I.), Master of Public Health (M.P.H.), Master of Science in Clinical Investigation (M.S.C.I.), Master of Science in Applied Clinical Informatics (M.S.A.C.I.), and Doctor of Medicine (M.D.). Any new graduate degree programs created within the school will become eligible by sufficient enrollment, as stipulated below.
3. The minimum student enrollment limit for a single graduate degree program to be eligible to elect an Honor Council representative is ten. If a program falls below that number, it will not be eligible to have a representative. It will regain eligibility when its enrollment reaches a minimum of ten students. However, some of the programs are closely affiliated; if, in the judgment of the program director(s) of these programs, there is sufficient overlap in required courses, these programs may be thought of as a unit (a.k.a., “affiliated degree programs”) for purposes of Honor Council representation. In these cases, the degree programs will be grouped for representation purposes, and allowed to elect an Honor Council representative on behalf of the affiliated degree programs. Current affiliated degree programs are the Au.D., M.D.E., and M.S.-S.L.P. programs, which will elect two representatives from their combined student cohorts, and the D.M.P. and M.S.M.P. programs, which will elect one representative from their combined student cohorts. All other non-M.D. programs will elect one representative. The M.D. program will follow its traditional practice of electing two representatives from each of the four classes.
4. In the non-M.D. programs, students will vote for Honor Council candidates within their own graduate program or affiliated degree programs. In the M.D. program, students will vote for Honor Council representatives within their own medical student class. Honor Council representatives are elected for one-year terms.
5. Honor Council members will select their own co-chairs. Two co-chairs will be elected from the M.D. program Honor Council representatives, for which all Honor Council representatives will vote, and one co-chair
Article IV—Duties of Officers

1. It shall be the duty of the co-chairs to preside at all meetings of the Honor Council, to arrange for the hearing of any student accused, and to perform all duties common to their office.

2. The co-chairs shall keep full minutes of all meetings and full proceedings of all hearings, which must be kept in permanent files. The co-chairs shall notify all members of all hearings, meetings, and retreats and shall perform any other related duties. These responsibilities will be rotated among the three co-chairs throughout the year.

3. Honor Council representatives for each program, together with the co-chairs, will have primary responsibility for conducting an annual program to educate their fellow students about the Honor Council and its processes, and for assuring the timeliness of elections. Program directors and the Honor Council faculty adviser will act in a supportive and advisory capacity.

Article V—Meetings

1. One regular meeting shall be held within four weeks of the start of the school year. At this meeting, the co-chairs of the Honor Council and the faculty adviser will explain the duties and procedures of the Honor Council to the members.

2. Special meetings may be called by the co-chairs at any time and must be called within ten working days when requested by two or more members of the Honor Council.

3. All meetings shall be conducted according to Roberts Rules of Order, Newly Revised.

4. A meeting by the Honor Council to re-evaluate and review the Honor Code should be convened a minimum of every four years.

Article VI—Quorum

A quorum for an Honor Council hearing concerning a violation of the Honor Code is nine. This quorum may be adjusted by the co-chairs in circumstances in which students rescue themselves because the hearing concerns a faculty member who is, or will be, in a supervisory position over them. The absolute minimum for an Honor Council quorum shall be seven. In rare circumstances when a quorum is otherwise unavailable, the senior associate dean for health sciences education will arrange for the hearing of any student accused, and shall perform any other related duties. The proceedings of the hearing are confidential. Any member present at a hearing is not at liberty to discuss its proceedings with anyone other than the members of the Honor Council present at the hearing or other persons with a legitimate need to know, e.g., law enforcement agents.

5. The proceedings of the hearing are confidential. Any member present at a hearing is not at liberty to discuss its proceedings with anyone other than the members of the Honor Council present at the hearing or other persons with a legitimate need to know, e.g., law enforcement agents.

6. In the event a hearing concerns a charge against a graduate student, a medical student or a faculty member who is in a supervisory role for any Honor Council members, those members shall recuse themselves from participation in the hearing.

7. Upon completion of the review of evidence, the Honor Council in closed executive session shall reach a decision of “guilty” or “not guilty” of violation of the Honor Code by simple majority vote. The Honor Council shall make its determination using an evidentiary standard of “beyond a reasonable doubt.” The co-chairs have a vote in all decisions unless contraindicated by Roberts Rules of Order.

8. Written notice of the Honor Council decision will be sent to the accused and to the dean of the School of Medicine. The dean will also receive the vote count, a written summary of the case, and an oral report of the case from the co-chairs. The Promotion Committee will not be notified unless a verdict of “guilty” has been found. In the case of a “guilty” verdict, the Promotion Committee will receive a written summary of the proceedings. The written summary also will be kept in the permanent records of the Honor Council.

9. When the Honor Council reaches a decision of “guilty,” the penalty, representing the majority opinion of the Honor Council, shall be sent to the dean of the School of Medicine. The recommended penalties should conform to the severity of offenses and may include expulsion from the School of Medicine, and may also include lesser penalties such as failure of a course, or suspension for a designated period of time.

Article VIII—Publicity

1. Each new student entering the School of Medicine will be informed by the Honor Council as to the functions of the Honor System and his or her obligations to the Honor Code. Each student will be provided a copy of the Constitution and Bylaws of the Honor System and the Honor Code.

2. At the commencement of each academic year, all students shall reaffirm their commitment to the honor system by signing the Honor Code.

3. Names of the members of the Honor Council will be made known to all students upon commencement of each academic year. The Honor Council members will be accessible to any student to address concerns or questions regarding protocol, violations, or other Honor Council issues.

Article IX—Miscellaneous

In case a student withdraws from the School after a charge has been made against him or her and before the hearing, the Honor Council shall record the facts and the accused shall not be allowed to re-enter until he or she has had a hearing before the Honor Council.

Article X—Amendments

Amendments to this Constitution shall require for their adoption the approval of a majority of the total membership of the Honor Council and ratification by a majority of the voting student body. These amendments must be approved by the dean of the School of Medicine and the faculty adviser before becoming final.
Bylaws

**Article I—Reporting an Incident**

1. If a student or an instructor has reason to believe that a breach of the Honor Code has been committed, he/she must, within seven class days, report the incident in signed written form in one of the following ways:
   a. Directly to one or both of the co-chairs of the Honor Council, or
   b. By way of the faculty adviser who will notify the co-chairs of the Honor Council, or
   c. To any member of the Honor Council, who will report directly and only to either the co-chairs or the faculty adviser.

2. Failure to take action on an incident is a breach of the Honor Code. Students are required to report in writing any suspected violations of the Honor Code.

3. Once an incident is reported, it shall be the responsibility of the Honor Council, not the student or instructor, to investigate the incident and determine the next course of action. The student or instructor who reports a violation is charged with maintaining confidence of his or her accusation; the accused is also required to maintain the confidence of the accusation and the hearing. Such confidence can be broken only as required in response to law enforcement agencies and to assure access to appropriate advice.

4. Perjury before the dean or any Honor Council member regarding the reporting of or investigation into an incident is a breach of the Honor Code and is subject to punishment.

5. Once an incident has been reported, the co-chairs and the faculty adviser will meet to discuss the incident. The co-chairs shall appoint a committee of two members from the Honor Council to investigate the case and report their findings to the faculty adviser and the co-chairs. These two members shall be ineligible to vote in the event the Honor Council is convened. At the conclusion of the investigation, the co-chairs and faculty adviser will then decide whether to convene the Honor Council. If the decision is made to convene the Honor Council, the student in question will be notified that he/she has been formally accused of a violation of the Honor Code. The Honor Council should be convened within ten class days from the initial reporting of the incident. Both the accuser and the accused will be notified of the nature of the charge as well as the time and place of the assembly of the Honor Council.

6. Once the Honor Council is assembled, the accusation will be presented by the co-chairs, and a hearing will be held by the Honor Council.

7. A student who reports his or her own Honor Code violation will be given consideration for his or her initiative in self-reporting the transgression. The co-chairs, with advice of the faculty adviser, will decide if an investigation is warranted.

**Article II—Penalties**

1. Penalties given to those declared “guilty” will be recommended by the Honor Council and enforced by the dean of the School of Medicine as he/she sees fit. The final decision and penalty will be reported by the dean to the student involved, to the reporting individual, and to the Honor Council.

2. Penalties may range from the minimum of failure of the assignment to the maximum of expulsion from Vanderbilt University School of Medicine.

3. If the violation was committed under extenuating circumstances, the Honor Council may, by a majority vote, recommend a suspension of the sentence. However, suspension of the sentence shall in no way alter the findings of “guilt” under the Code.

**Article III—Appeals**

Appeals to any final actions that result from Honor Council hearings can be made with a petition to the Vanderbilt University Appellate Review Board as follows:

a. The appeal petition must be in writing.

b. It must specify the grounds for appeal.

c. It must be filed within seven class days of the original notification of the verdict or within two weeks if school is not in session for seven days following the notification.

**Article IV—Summer Honor Council**

1. The Summer Council will have official functions from the day following university Commencement exercises until the day class registration begins for the fall semester.

2. In the event that a designated member will not be in Nashville during the summer, the respective program representative should appoint a member of his/her class who will be in Nashville, to be approved by the Honor Council.

3. In the event that both co-chairs will not be in Nashville during the summer, then the faculty adviser should recommend a chair from the members of the Honor Council, subject to Honor Council approval.

**Standards of Behavior for Interactions with Medical Students**

**Statement of Standards**

In practice, physicians are held to high standards of professionalism and patient care. The medical learning environment is expected to facilitate students’ acquisition of the professional and collegial attitudes necessary for effective, caring, and compassionate health care. The development and nurturing of these attitudes requires mutual respect between teachers (including faculty, residents, and staff) and students, and between each student and his or her fellow students. Mutual respect between student and teacher, and between fellow students, may be expressed in many ways but all interactions shall include honesty, fairness, and evenhanded treatment. Behavior which is inimical to the development of mutual respect shall be prohibited. Such behavior may include but is not limited to:

1. Harassment of a sexual nature;

2. Discrimination or harassment based on race, sex, religion, color, national or ethnic origin, age, disability, military service, sexual orientation, or gender identity.

3. Grading, promoting, or otherwise evaluating any student on any basis other than that student’s performance or merit.

1 All Vanderbilt University policies concerning medical student interactions with faculty and staff as set forth in the Vanderbilt University Student Handbook, the Faculty Manual, and the Staff Manual remain in full force and effect.

2 By their express terms, these Standards apply only to interactions which involve one or more medical students; however, it is hoped that these Standards will serve as a guide to all members of the Vanderbilt University School of Medicine community. The reporting procedure outlined herein shall apply only to allegations of the violation of these Standards in interactions involving medical student(s).

**Comments**

The following delineates more clearly the behavior enumerated above which may be inimical to the development of mutual respect between students and teacher and between fellow students. For purposes of these Comments, the term “person” shall refer to a student in interactions between fellow students or, in student-teacher interactions, to the student or teacher, as appropriate.

1. Harassment of a sexual nature may include:

   a. Denying the opportunity for training or rewards because of a student’s gender;
b. Requesting sexual favors in exchange for grades or other awards;
c. Making unwanted sexual advances;
d. Unreasonable and inappropriate sexual or sexist conduct directed towards any person;
e. Displaying in an unreasonable and inappropriate manner sexually suggestive or pornographic materials; or
f. Grading or evaluating a student based upon gender rather than performance and merit.

(2) Discrimination and harassment may include:

a. Denying the opportunity for training or rewards because of a student’s age, race, religious affiliation, or any other attribute of the student other than merit or performance;
b. Unreasonable and inappropriate conduct directed towards any person which is intended to insult or stigmatize that person;
c. Exclusion of a student from any usual and reasonable expected educational opportunity for any reason other than as a reasonable response to that student’s performance or merit;
d. Requiring a student to perform personal services such as shopping or babysitting;
e. Showing favoritism among students based upon any attribute of the student(s) other than performance or merit and thereby reducing educational opportunities available to the nonfavored student(s); or
f. Grading or evaluating a student based upon any attribute of a student other than that student’s performance and merit;
g. Any physical mistreatment, such as hitting, slapping or kicking, or threatening such physical mistreatment;
h. Requiring a student to perform menial tasks with the intent to humiliate the student.

Any perceived violation of these Standards of Behavior (“Standards”) should be reported in accordance with the following procedure. Violations of these Standards may subject the offender to disciplinary action. These Standards may be amended at any time by the Executive Faculty. The Standards Committee shall be composed of such members as the dean shall appoint from time to time. In cases where there is a potential conflict between the standards and university policy, university policy will prevail.

Reporting Procedure

When a student feels that he or she has been mistreated, the student is encouraged to report the incident to the medical school’s ombudsman. The ombudsman is introduced to the students during orientation and is not a member of the administration, nor a director of a major medical school course. When the mistreatment involves an allegation of discrimination and/or harassment, including sexual misconduct and/or intimate partner violence, the ombudsman must report the incident to the Vanderbilt University Equal Opportunity, Affirmative Action, and Disabilities Services Department (EAD). If there is a report of sexual misconduct and/or intimate partner violence involving a student, the Sexual Misconduct and Intimate Partner Violence Policy, which can be found in the Vanderbilt University Student Handbook, applies to all Vanderbilt students, including medical students. Please consult that policy for more information.

The ombudsman carefully reviews each incident with the student and develops an action plan accordingly. Students are fully protected from retaliation in all cases. The ombudsman has the full support of the medical school administration in handling these delicate matters.

Vanderbilt University School of Medicine
Compact Between Teachers and Learners

Preamble

As a community of teachers, learners, physicians, and physicians-in-training, we acknowledge the fundamental importance of our professional values in creating and maintaining an environment that promotes the highest standard of learning and the highest quality of patient care. The following principles characterize this environment and guide us in making daily decisions: Respect, Service, Integrity, Accountability, Scholarship, and Compassion. Recognizing that in an academic community we are teachers and learners simultaneously, we make the following commitments with the understanding that each applies to all of us, regardless of our status as faculty, resident, or student.

Commitments of Teachers

• We will respect students, colleagues, staff and patients as individuals.‡
• We will strive to provide the highest quality instruction, by preparing adequately for all teaching sessions, using evidence-based content, arriving on time, and admitting any gaps in knowledge. We will strive for continuous improvement in our teaching efforts by responding to feedback and evaluation.
• We will demonstrate respect for our learners by turning off cell phones and silencing pagers during sessions we teach, unless they are required for service responsibilities.
• We will clearly express learning objectives for all courses and teaching sessions, and understand how these promote the learning objectives of the school. We will clearly define any specific academic and behavioral expectations for our classes.
• We will be aware of institutional and national policies, such as duty hours, and make sure that our expectations are consistent with those policies.
• We will not demand that our learners take actions that are inconsistent with professional ethics. We will assign tasks that are appropriate for stage of learning, level of responsibility, and status as students. If an assigned task conflicts with the personal ethics of a learner, we will discuss this with the student and attempt to resolve the conflict in a manner that respects the student while placing priority on the interests and well-being of the patient.
• We will recognize the responsibilities implicit in our roles as mentors and coaches, and in the spirit of cultivating excellence in our learners, provide timely and constructive feedback.
• We will recognize our status as role models, and in our interactions with patients, staff, and students, we will exhibit the same standard of professional behavior that we expect from others.
Commitments of Learners

- We acknowledge that the teacher-learner relationship is a model for the doctor-patient relationship, and will strive to know our students as individuals, answer their correspondences promptly, exercise concern for their well being, and treat them with compassion.
- We will respect the intellectual property of others and will use online resources, such as VSTAR, in a manner that is consistent with that respect.
- We will demonstrate honesty and integrity in all academic endeavors, including examinations, research efforts, and patient care entries.
- We will strive to create a culture of safety. This culture includes evaluation for disclosure, event analysis, and process change when a safety concern is identified.

Acknowledgements

This document draws heavily from the following sources:

1. Association of American Medical Colleges, Compact Between Teachers and Learners of Medicine.
2. National Board of Medical Examiners, Center for Innovation, The Behaviors of Professionalism.

Limits of Confidentiality

Imminent Harm/Sexual Misconduct

Imminent Harm to Self or Others. Consistent with Federal Law and Vanderbilt University policy, VUSM may release student information normally considered confidential to appropriate individuals (e.g., health care personnel, police, etc.) if such information is necessary to protect the health or safety of the student or other individuals.

VU Policy on Sexual Misconduct. The Vanderbilt University Student Handbook includes a Sexual Misconduct and Other Forms of Power-Based Personal Violence policy (vanderbilt.edu/student_handbook/sexual-misconduct/). Students who experience violations of this policy are encouraged to report such incidents. It should be noted that all VUSM faculty members, including those in the VUSM advising system, as well as all VUSM administrators, are not confidential resources (they are known as “mandatory reporters”). As outlined in the policy, mandatory reporters are required to report possible violations of this policy to the Title IX Coordinator so that the university can take steps to address the matter promptly and resolve it fairly.

Conflicting Roles

Policy on Multiple Roles

Many VUSM faculty members hold multiple roles in our education program, and we believe that our students benefit from rich relationships with various supportive faculty members. However faculty members engaged in multiple educational roles can face competing demands, which may directly or indirectly affect (or have the appearance of affecting) an individual’s professional judgment in exercising any educator duties and responsibilities.
Of particular concern to students is the intersection of roles involving advising students regarding personal or academic struggles with roles in assessment of student performance or assigning grades. Because not all conflicts can be eliminated, it is necessary to establish a plan for managing and minimizing conflict.

Conflict management typically involves ensuring that any individual in an advising role does not serve as the sole assessor of students in any required course. During the academic year, when individuals are proposed for new roles, assignments are reviewed for potential conflicts. Conflict management plans are created by faculty members involved and are reviewed and maintained by the associate dean for medical student affairs (MD program) and the assistant dean for health sciences education (other VUSM degree programs).

Policy on VUSM Faculty Supervising Family
It is the policy of Vanderbilt School of Medicine that students may not be supervised or graded by a parent or family member.

Policy on VUSM Educators Providing Student Health Care
Vanderbilt University Medical Center physicians occasionally provide clinical care for Vanderbilt students. Some of these faculty members also teach and assess students in the classroom or clinical setting. Should a situation arise in which a Vanderbilt faculty member finds himself/herself in a dual role as care provider and as a teacher/assessor of a Vanderbilt student, he/she must recuse himself/herself from the teaching/assessor role. Examples of such situations include faculty serving as small group leaders in a course or as team leaders within clinical learning experiences. Furthermore, if a Vanderbilt faculty member serves as a course or clinical learning experience director, placing him/her in a teaching/assessor role with students in a degree program, he/she should not accept students in that program as patients.

When a student has a pre-existing therapeutic relationship as a patient of a faculty member who directs a course or clerkship, the patient-provider relationship should not be disrupted. In these situations, the faculty member must discuss the situation with the student and arrange for an alternative means of assessment in the course or clinical experience. This arrangement would likely involve identifying a different faculty member to provide the assessment in the course or clinical experience. This policy serves to secure and protect the integrity of the learning environment at the Vanderbilt School of Medicine. For questions regarding the implementation of this policy, please contact the senior associate dean for health sciences education.

Competencies for Learners across the Continuum
The following set of core competencies was adopted by the Undergraduate Medical Education Committee in 2009 and updated in July 2012. These competencies represent goals for medical education across the continuum, and while it is expected that students will be able to demonstrate some degree of mastery in all of them by the time of graduation, it is not expected that all graduating students will be expert in all of them. These core competencies are based on the six ACGME competencies that guide learning throughout postgraduate medical education.

I. Medical Knowledge
Physicians must understand established and evolving biological, clinical, epidemiological and social-behavioral sciences and must be able to apply this knowledge to patient care. Learners will be able to:

- MK1. Explain the biological, behavioral and social factors that promote health or predispose individuals to illness, and how these may be used in partnership with patients to predict, prevent or mitigate the onset of disease.
- MK2. Demonstrate deep knowledge of the sciences essential for one's chosen field of practice.
- MK3. Demonstrate knowledge of the sciences that support other specialty fields as they relate to one's own practice.
- MK4. Demonstrate knowledge of the sciences underlying the common and important health and wellness issues affecting our society and other societies around the globe.
- MK5. Demonstrate an appreciation for the importance of the sciences that underlie the effective practice of medicine and the resulting commitment to maintain an up-to-date fund of knowledge through continuous learning.
- MK6. Apply knowledge of the scientific method, reproducible research, and experimental design in evaluating questions of interest.
- MK7. Collect, analyze, and interpret new information to enhance knowledge in the various disciplines related to medicine.

II. Patient Care
Physicians must consistently provide care that is compassionate, culturally competent, safe, efficient, cost sensitive, appropriate, and effective for the treatment of illness and the promotion of health. Learners will be able to:

- PC1. Perform a problem-focused or complete history and physical examination as indicated, and to obtain necessary diagnostic studies, including imaging, laboratory and procedural tests.
- PC2. Interpret clinical information and formulate a prioritized differential diagnosis that reflects the use of medical knowledge in a probabilistic reasoning process.
- PC3. Formulate a management plan based on evaluation of the scientific evidence as well as on the patient's values, cultural background, beliefs and behaviors; critically review the literature with an understanding of the levels of evidence provided by typical experimental or study designs, measurement techniques, and analyses; recognize common forms of bias.
- PC4. Implement a comprehensive management plan that would include performing indicated procedures within the scope of one's training.
- PC5. Utilize knowledge support tools such as evidence-based diagnostic criteria, management guidelines and point-of-care information resources.
- PC6. Utilize informatics and health information technology in support of patient care in a manner that reflects understanding of their capabilities, limitations, benefits, and risks. Examples include the electronic health record, computerized physician order entry, decision support systems and messaging systems.
- PC7. Demonstrate clinical judgment that is safe and commensurate for the level of training.
IV. Professionalism

Physicians must possess the knowledge, skills and attitudes necessary to carry out professional responsibilities, adhere to ethical standards and establish and maintain productive, respectful relationships with patients and colleagues. Professionalism applies to formal and informal interactions in education systems, in health care practice settings, and in the wider community. Learners will be able to:

- PR1. Discuss the duties and obligations of the medical profession, its health care institutions and its individual practitioners to patients, communities and society.
- PR2. Place the primacy of the patient in all health care endeavors.
- PR3. Work for a more just health care system, including the ability to advocate effectively on behalf of individual patients and patient populations.
- PR4. Discuss the principles of biomedical ethics and apply these principles in practical contexts.
- PR5. Demonstrate honesty and transparency in all dealings with patients, learners, and colleagues.
- PR6. Comply with the professional and legal standards that safeguard patient confidentiality.
- PR7. Discuss the concepts surrounding conflict of interest and competing priorities; identify and manage these in ways that maintain the primacy of patient interests and the health of the public.
- PR8. Demonstrate compassion and respect for all persons regardless of differences in values, beliefs and experiences.
- PR9. Demonstrate awareness of the vulnerability of patients and the inherent power differentials in organizational and interpersonal relationships, and respect the boundaries that define therapeutic relationships.
- PR10. Seek excellence in all professional endeavors.

III. Interpersonal and Communication Skills

Physicians must be able to communicate in ways that result in safe, culturally sensitive, effective and respectful information exchange and create beneficial partnerships with patients, their families, and other health professionals. Learners will be able to:

- ICS1. Discuss the enduring value of effective relationships and the factors that can facilitate or impede their formation, including power imbalances and social, economic, and cultural differences.
- ICS2. Demonstrate sensitivity to the diversity with which people perceive, think, learn, communicate, and make decisions, both individually and in groups, and an understanding of how these processes might be impacted by illness.
- ICS3. Explain the elements of a validated provider-patient communication model, and demonstrate appropriate components of the model during patient interactions.
- ICS4. Discuss the strengths, limitations and appropriate applications of various communication modalities, and utilize verbal, non-verbal, written, electronic, graphic, synchronous, and asynchronous modalities in appropriate ways.
- ICS5. Discuss the challenges and opportunities created by cross-cultural communications and their potential impact on patient care, health disparities and health outcomes, and engage support systems that facilitate cross-cultural communication.
- ICS6. Discuss the elements of effective team building and utilize appropriate techniques to create, participate in, and lead effective teams.
- ICS7. Establish and utilize effective communication strategies with patients, families, and healthcare colleagues, regardless of their cultural background.
- ICS8. Build and sustain effective relationships in a wide variety of settings and with persons from diverse backgrounds.
- ICS9. Effectively manage interpersonal conflict and provide and receive constructive feedback.
- ICS10. Disclose medical error to patients, families and health care providers in a manner that is truthful, sensitive, responsible, constructive and supportive.

V. Practice-Based Learning and Improvement

Physicians must be able to continuously improve patient care by investigating and evaluating outcomes of care and by engaging in learning activities which involve critical appraisal and assimilation of scientific evidence and application of relevant knowledge to individual patients and populations. To demonstrate competence in practice-based learning and improvement, each learner will be able to:

- PBL1. Systematically collect, monitor, and analyze data describing current performance at the individual, team and/or systems levels in an effort to achieve the highest possible quality of care.
- PBL2. Continuously pursue knowledge regarding best practices and optimal patient outcomes.
- PBL3. Compare data about current performance at the individual, team, and/or systems level with expected outcomes, and identify and implement the learning strategies needed to improve performance.
- PBL4. Develop and implement improvement projects using a systematic approach that employs the principles of improvement science.
- PBL5. Recognize, acknowledge and analyze medical errors and devise system-based strategies that would prevent similar errors in the future.

VI. Systems-Based Practice

Physicians must understand and respond to the larger context and system of health care and effectively call on system resources to provide care that is of optimal value. Learners will be able to:

- SBP1. Explain why health care of optimal value is safe, effective, patient-centered, culturally sensitive, timely, efficient, and equitable.
- SBP2. Explain basic principles of systems science and the ways in which people, processes, technology and policy combine to form systems.
- SBP3. Describe the basic organization of health care systems, including the various relationships between patients, providers, practices, institutions, insurers and benefits managers, community health organizations, federal and state regulators, accrediting bodies, professional organizations, licensing boards, the
pharmaceutical and biotechnology industries, and legislators.

- SBP4. Compare and contrast the local systems in which acute patient care and health maintenance are provided, such as emergency departments, outpatient clinics, hospitals, mental health clinics, public health clinics, pharmacies, etc.; coordinate patient care within these systems.
- SBP5. Describe different health professionals’ roles and responsibilities within the health care delivery system and maximally utilize the capabilities of all health care team members to achieve optimal patient outcomes.
- SBP6. Discuss the key elements of leadership, management and organizational behavior and how these elements apply in teams, health care organizations, and society; demonstrate these in one’s own leadership roles.
- SBP7. Describe how public health and health policy shape the nature of our health care system and discuss how and when clinicians must interact with public health officials and policymakers.
- SBP8. Explain risk, complexity, resilience and related concepts that influence the performance of humans and the systems in which they work.

Major Affiliated Clinical Education Sites

Students enrolled at Vanderbilt University School of Medicine must complete required course work at VUSM or a VUSM affiliate institution, unless otherwise explicitly indicated.

Vanderbilt University Medical Center

Facilities

Vanderbilt University Hospital

Vanderbilt University Hospital (VUH) opened in 1980, with the major addition of the Critical Care Tower in 2009. The hospital is dynamic, growing, and dedicated to meeting the most critical and complex needs of our region, continuing Vanderbilt’s more than century-old tradition of offering the best in patient care.

Many patients seen in the hospitals are from states other than Tennessee, with the majority coming from Kentucky, Alabama, and Mississippi.

Adjacent and attached to VUH is Medical Center East, primarily an outpatient services building, but also housing some operating rooms, patient rooms for Labor and Delivery, the Vanderbilt Bill Wilkerson Center and the Vanderbilt Orthopaedics Institute.

The Monroe Carell Jr. Children’s Hospital at Vanderbilt

The Monroe Carell Jr. Children’s Hospital at Vanderbilt opened as a stand-alone facility in 2004, and is a place of hope and healing for pediatric patients and their families. Recognized as one of the premier children’s hospitals in the nation by U.S. News and World Report for nine years running, Children’s Hospital cares for the sickest patients in the region and beyond.

Children’s Hospital is the most comprehensive pediatric facility in Tennessee, providing services including neurosurgery, cancer treatment, trauma care, transplant, and much more.

Vanderbilt Stallworth Rehabilitation Hospital

Vanderbilt Stallworth provides comprehensive inpatient and outpatient rehabilitation services for adult and pediatric patients with neurological, orthopaedic, and other injuries, as well as chronic conditions and disabilities. The hospital specializes in treating stroke, brain, and spinal cord injury; multiple traumas; amputations; hip fracture; and other diagnoses. Stallworth is a designated Stroke Center of Excellence and repeatedly exceeds the national benchmarks for patient satisfaction and functional outcomes. This hospital is a joint venture with HealthSouth Corporation.

Vanderbilt Psychiatric Hospital

Vanderbilt Psychiatric Hospital, which opened in 1985, provides inpatient and partial hospitalization services to children, adolescents, and adults with psychiatric and substance abuse problems. Services include 24-hour crisis assessment and a year-round accredited school for children and adolescents.

Vanderbilt Ingram Cancer Center

Vanderbilt-Ingram Cancer Center (VICC) is Tennessee’s only National Cancer Institute (NCI)-designated Comprehensive Cancer Center providing treatment for both adult and pediatric cancer patients. It is also a member of the National Comprehensive Cancer Network, a nonprofit alliance of twenty-six of the world’s elite cancer centers collaborating to improve cancer care for patients everywhere. The Cancer Center unites physicians and scientists in research programs in key areas. VICC is ranked in the top 10 in competitively-awarded NCI grant support.

VICC is one of the few centers in the country with a comprehensive program for cancer survivors regardless of age, type of cancer, or where they received their oncology treatment. The center’s clinical trials program includes robust work in Phase I drug development and designation by the NCI for Phase I and Phase II clinical trials.

The center also boasts several donor-supported research initiatives, including the Frances Williams Preston Laboratories established by the T. J. Martell Foundation, the A. B. Hancock Jr. Memorial Laboratory for Cancer Research, and the Robert J. Kleberg, Jr., and Helen C. Kleberg Center for Personalized Cancer Medicine.
Center for Experiential Learning and Assessment (CELA)
The Center for Experiential Learning and Assessment (CELA) provides an educational simulation environment for training our students and other health care professionals to practice the highest quality clinical care. The center is one of fourteen National Institutes of Health research centers on mental retardation and other developmental disabilities. It has also been named a University Center for Excellence on Developmental Disabilities Education, Research, and Service by the federal Administration on Developmental Disabilities.

Vanderbilt Diabetes Center
The Vanderbilt Diabetes Center provides a comprehensive approach to diabetes for patients of all ages that includes all aspects of health related to diabetes. It also offers programs to equip the next generation of caregivers and scholars. Other programs support the diabetes-related research of VUMC faculty members.

Vanderbilt Kennedy Center for Research on Human Development
The Vanderbilt Kennedy Center strives to improve life for people with disorders of thinking, learning, perception, communication, mood, and emotion caused by disruption of typical development. Its core values include the pursuit of scientific knowledge with creativity and purpose; the education of scientists, practitioners, families, and community leaders; the facilitation of discovery by Kennedy Center scientists; and the translation of knowledge into practice. The center is located in the Frances Preston Medical Research Building and houses the Vanderbilt Medical Research Building IV, which contains wet lab space and a greenhouse for research and teaching. It is a joint undertaking of the College of Arts and Science and VUMC.

Medical Research Building III
MRB III houses research laboratories, teaching laboratories, research support areas, offices, conference rooms, classrooms, and a greenhouse for research and teaching. It is a joint undertaking of the College of Arts and Science and VUMC.

Medical Research Building IV
MRB IV houses a significant amount of wet lab space and supports continued growth in VUMC research programs.

Medical Center North
The Newman Clinical Research Center, an inpatient orthopaedic unit, and a general-care unit are inside Medical Center North. The complex also houses laboratories and administrative support services for VUMC. Faculty and administrative offices and research space for medical school departments are in Medical Center North. The original portions of the building were completed in 1925. Since that time a number of connecting wings and buildings have been added.

Vanderbilt Health One Hundred Oaks
This 440,000-square-foot doctors' office suite opened for patient care in 2009 and is designed for easy access off the interstate highway system, abundant surface parking, automated check-in, and integrated services, labs, and radiology. It houses numerous specialty clinics, primary care services, and advanced imaging facilities.

Vanderbilt Health Williamson County
Vanderbilt Health Williamson County offers more than 250 physicians in practices ranging from primary care to sports medicine, GI, cancer care, imaging, and pediatrics.

Vanderbilt Dayani Center for Health and Wellness
The Vanderbilt Dayani Center is a medically based fitness/health promotion center that specializes in modifying risk
faculties for conditions including cardiovascular disease, weight management, stress, sedentary lifestyle, and smoking. It was the first Certified Medical Fitness Center in Tennessee, is closely aligned with the Department of Physical Medicine and Rehabilitation, and serves patient care, research, and education functions within VUMC.

Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences

The Vanderbilt Bill Wilkerson Center is devoted to comprehensive patient care, education, and research in the field of communication disorders and diseases, as well as ailments of the ear, nose, throat, head, and neck.

Vanderbilt Transplant Center

The Vanderbilt Transplant Center, one of the Southeast’s largest, is a multidisciplinary alliance of transplant specialists. Each transplant program within the center represents a collaboration of medical and surgical professionals working together in the best interests of the transplant patient.

Graduate Medical Education

Vanderbilt University Medical Center has built a strong reputation as a national and international leader in medical education of health professionals, research in medical science, and patient care. Residency training began at Vanderbilt University Medical Center with just twelve residents in 1925. Now, VUMC trains almost 1,000 house staff in more than 80 accredited residency and fellowship programs.

Residency Training

Medical school graduates preparing for the practice of medicine usually spend three or more years in residency training in order to be able to sit for the certification examination in their chosen specialty. Such supervised experiences at Vanderbilt cover an incredibly broad range of specialties and allow the learner to gain graduated responsibility with the ultimate goal of independent practice. Vanderbilt attracts highly qualified candidates from diverse backgrounds, ensuring a house staff that is devoted to delivering safe, high-quality patient care, to succeeding in their chosen discipline, and to teaching other learners in the process. As a result, the house staff take their responsibility in medical student teaching as both an honor and a privilege and devote considerable time to the medical students.

In addition to their primary responsibilities at Vanderbilt University Medical Center (including Vanderbilt University Hospital, Monroe Carell Jr. Children’s Hospital at Vanderbilt, the Vanderbilt Psychiatric Hospital, and The Vanderbilt Clinic), the residents also work in a variety of other clinical settings across Nashville including the Veterans Administration Hospital, St. Thomas Midtown (formerly Baptist Hospital), and St. Thomas West, with supervision by outstanding faculty in each setting.

Vanderbilt University Medical Center (VUMC) is a major referral center and consequently has a patient population with complex pediatric, medical and surgical problems. The Veterans Administration Hospital, adjacent to VUMC, serves veterans and their families from throughout the mid-south and is an important component of the teaching program. All physicians at the VA Hospital are full-time faculty members of the School of Medicine.

Post-Residency Clinical Fellowships

After residency training, many physicians choose to pursue further subspecialization through a clinical fellowship. Fellows admitted to these programs must have completed an approved residency program. These training programs have as their goal the training of physicians for practice and certification in a medical subspecialty. As with the residents mentioned above, the fellows are expected to participate in departmental activities related to teaching, clinical services, and research and serve as another outstanding resource for medical student education.

Office for Continuous Professional Development

Vanderbilt University School of Medicine and Vanderbilt University Medical Center recognize a major commitment to the continuous professional development of Vanderbilt and community physicians and others in the health professions. At Vanderbilt, continuing medical education is considered an important part of the continuum of medical education which is initiated in the undergraduate experience, progresses through graduate medical education, and matures in ongoing continuing medical education and continuing professional development. The Division of CME sponsors learning opportunities for physicians and other members of the health care team that will enable them to provide the very best possible care to their patients and perform optimally in their other professional responsibilities as measured by improvements in competence, performance, and patient health status. The Vanderbilt University School of Medicine Division of CME maintains Accreditation with Commendation from the Accreditation Council for Continuing Medical Education (ACCME), recognizing demonstrated engagement with the quality improvement enterprise in a way that supports physician learning and quality patient care.

Vanderbilt has also been recognized by the Multi-Specialty Board of the American Board of Medical Specialties (ABMS) as a certified site for the Maintenance of Certification (MOC) Portfolio Program. The MOC Portfolio Program was established by ABMS to permit institutions such as Vanderbilt to provide support to physicians who are pursuing Maintenance of Certification Part IV projects, thus aligning physicians’ performance improvement requirements with the institution’s
performance improvement goals. The Vanderbilt MOC Portfolio Program is a collaborative effort of the Office of Quality, Safety and Risk Prevention, the Informatics Center, and the Office for Continuous Professional Development.

Inquiries about CME or MOC should be directed to the Office for Continuous Professional Development or to departments and divisions about specific programming.

Tennessee Valley Healthcare System of the Veterans Administration

**VA Academic Partnership Council for the Department of Veterans Affairs, Tennessee**

The VA Academic Partnership Council is the fundamental administrative unit for policy development and evaluation of educational and research programs at the affiliated Department of Veterans Affairs, Tennessee Valley Healthcare System (TVHS). It is composed of senior faculty members of the School of Medicine and others who are associated with TVHS.

**Committee Voting Members:**

Veronica Mallett, M.D., Chairperson. John Nadeau, M.D., Co-chairperson.
David Raiford, M.D., R. Daniel Beauchamp, M.D., Leon Dent, M.D.,
Brian Christman, M.D., Cynthia Johnson, R.N., MSHCA, NEA-BC,
Jennifer Vedral-Baron, MN, APRN, NP-C, FAANP, FACHE, Stephan
H. W. Heckers, M.D., Suzanne Jené, M.B.A., V.H.A.-C.M., Donald
Brady, M.D., Don Rubin, M.D., Sam R. Sells, M.D., Duane Smoot,
M.D., Nancy Brown, M.D., James Staiger, M.D., David Baker, M.D.,
Stephen McLeod-Bryant, M.D., Linda Norman, D.S.N., R.N., F.A.A.N.,
Lloyd B. Williamson, M.D., Leonard Webster, M.D., Alphonse
Pasipanodya, M.D.

**Non-Voting Members:**

Ronnie Smith, Bonnie Miller M.D., Frank Royal, M.D., Jennifer J. Lipke,
Marianne Myers, Brent Holman.
Admission

Doctor of Medicine (M.D.)

Requirements for Entrance

Vanderbilt University School of Medicine seeks students with a strong background in both science and liberal arts who will have the baccalaureate degree before matriculation. The Medical College Admission Test (MCAT) is required and used along with other observations to predict success in pre-clinical course work.

Vanderbilt University School of Medicine recognizes that the undergraduate academic experience of applicants varies greatly. Therefore, we have made the decision to move away from “requirements” to “recommendations.” The expansive and ever-changing landscape of medicine and its practice necessitates that an applicant have demonstrated competencies in the natural and life sciences, social sciences, and mathematics. These competencies can be met through traditional and/or newly-established interdisciplinary courses of study in an accredited institution of higher learning. The use of AP or other credit is acceptable, but it is strongly encouraged to build stronger competencies through courses taken in college. Although there is no timeframe in which students must meet the above competencies, it is recommended that students have recent exposures to most or all of these areas. Competitive applicants should demonstrate in-depth competency in each of the following areas of study, based on the AAMC-HHMI Scientific Foundations for Future Physicians and AAMC-Behavioral and Social Science Foundations for Future Physicians. Mastery of competencies is reflected by a strong performance in the classroom and on the MCAT, as well as in letters of evaluation.

Biology: Applicants should demonstrate competence in the understanding of molecular and cellular biology, genetics, and how they regulate organ and organismic structure and function. Fields of study analyzing diverse human properties are viewed in a strong, positive light.

Chemistry/Biochemistry: Applicants should demonstrate competence in the basic principles of chemistry as it pertains to living systems. Studies in biochemistry are an exemplary way to prepare students for training in medicine science.

Mathematics/Statistics and Physics: Applicants should demonstrate competence in the basic principles of physics and mathematics underlying living systems. Applicants should demonstrate basic competence in statistics or biostatistics, which is important to understand the quantitative aspects of medicine and biomedical research.

Social Sciences and Communication: It is imperative that the applicant demonstrate competence in the humanistic understanding of patients as human beings and as part of a familial and social structure. In this regard, studies in psychology and sociology are viewed favorably. It is required that the applicant speaks, writes, and reads English fluently.

The faculty of the Vanderbilt University School of Medicine recognizes its responsibility to present candidates for the M.D. degree who have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care. Candidates for the M.D. degree will ordinarily have the broad preliminary preparation to enter postgraduate medical education in any of the diverse specialties of medicine.

All candidates for admission must possess sufficient intellectual ability, emotional stability, and sensory and motor function to meet the academic requirements of the School of Medicine without fundamental alteration in the nature of this program.

The senior associate dean for health sciences education, in consultation with the Admission Committee of the School of Medicine, is responsible for interpreting these technical standards as they might apply to an individual applicant to the School of Medicine.

Recommendations for Entrance

A broad experience in non-science courses is encouraged, especially experience beyond the introductory course level in areas such as English, the humanities, the arts, and the social and behavioral sciences. A major in non-science courses does not affect selection.

Selection Factors

Vanderbilt University School of Medicine (VUSM) seeks to matriculate a diverse group of academically exceptional students whose attributes and accomplishments suggest that they will be future leaders and/or scholars in medicine. To accomplish this goal, VUSM provides a review of each candidate by multiple members of the faculty who are broadly representative of the faculty body. The committee uses a holistic approach to evaluate an array of applicant attributes, including academic excellence, personal characteristics, accomplishments in research, leadership, service to others, contribution to diversity (gender, race, ethnicity, sexual preference, socioeconomic background, geographic origin), and participation in extracurricular activities. A criminal background check is required before matriculation.

Medical College Admission Test

The Medical College Admission Test is given under the auspices of the Association of American Medical Colleges and is required of all applicants to Vanderbilt. It is given multiple times each year. Since the examination score is used by medical schools in the selection of applicants, candidates should take the test in the spring prior to the time application is submitted, if possible. Results of the September examination are acceptable, but will delay review of the application until scores are received.

Application Procedure for Admission

As a convenience to the applicant, Vanderbilt University School of Medicine participates in the American Medical College Application Service. All application materials may be obtained online through AMCAS by going to aamc.org. Applications are received online by AMCAS any time after 1 June and before 1 November preceding the anticipated enrollment date the next year.

The Screening Admission Committee evaluates the initial application materials. The Interview Admission Committee evaluates AMCAS, secondary application, and letters of recommendation to decide which applicants will be invited for an interview. Interviews are conducted at Vanderbilt between September and February. The Executive Admission Committee evaluates the application materials and interview reports to
Admission Requirements

Vanderbilt University School of Medicine has ten dual degree programs. Application is made to each program separately, and admission to both programs is required to enter a dual degree program.

A single application is made to the M.D./Ph.D. program by indicating M.D./Ph.D. degree on the AMCAS application to Vanderbilt University School of Medicine and completing the MSTP secondary application. The application will be reviewed by the MSTP admission committee.

Transfer Students

Due to Curriculum 2.0, transfer students will no longer be accepted to Vanderbilt University School of Medicine.

Medical Innovators Development Program (MIDP)

Admission Requirements

The MIDP program with individualized content in one of three MIDP translational tracks (imaging, informatics and systems design, and medical devices), as well as generalized content in intellectual property, entrepreneurship, management, and the FDA regulatory process. The program emphasizes multi-disciplinary collaboration with faculty expertise across the schools of medicine, engineering, and business. A criminal background check is required before matriculation.

Transfer Students

Due to Curriculum 2.0, transfer students will no longer be accepted to Vanderbilt University School of Medicine.

Medical Innovators Development Program (MIDP)

Admission Requirements

The MIDP admission process is the same as that for the M.D. program. All course recommendations applicable to the M.D. program apply to MIDP applicants as well. Please refer to the competency-based requirements outlined for the M.D. program. Other requirements for the MIDP program are described below.

1. MIDP applicants must have a doctoral degree in engineering (from among the following fields: biomedical; bio-engineering, electrical, mechanical, computer, industrial and systems, nuclear, or chemical and biological) or applied sciences (from among the following fields: physics, biophysics, medical physics, computer science, applied mathematics, or materials science), with evidence of academic excellence. The doctoral program must be completed prior to matriculation. If conferment of the doctoral degree will not take place until after matriculation, a letter from the registrar or dean of the institution awarding the degree stating that all degree requirements have been met (including approval of dissertation) is required before matriculation.

2. Like traditional M.D. applicants, MIDP applicants will submit three letters of recommendation. However, one should be from a research mentor or work supervisor who can describe the applicant’s potential for and commitment to success as an applied physician-scientist.

3. In addition to the three essays submitted through the MCAS application, MIDP applicants must submit an MIDP-focused essay explaining the reason(s) the applicant is interested in joining the Medical Innovators Development Program, how the MIDP program will help the applicant achieve his or her career goals, and how the goals relate to imaging, medical devices, or informatics. (~500 words)

The MIDP Leadership Team has the responsibility of reviewing MIDP applications for admission and making recommendations to the chairs of admission.

Financial Support

Funding for tuition is provided for those who gain admission to the Medical Innovator Development Program.

Oral and Maxillofacial Surgery–Doctor of Medicine Program (OMS–MD)

The Vanderbilt University Medical Center offers an Oral and Maxillofacial Surgical (OMS) Residency Program that, in collaboration with Vanderbilt University School of Medicine, allows qualified individuals to complete a Vanderbilt University M.D. in three years and thereafter progress directly into the VUMC OMS residency. The Vanderbilt University Oral and Maxillofacial Surgical (OMS) Residency Program and VU M.D. program accept one student each year to this program. The OMS-MD curriculum allows trainees to meet graduation requirements for the doctor of medicine at the end of three years, at which point the Vanderbilt University M.D. is conferred. During the last three of six years in the OMS-MD program, the trainees continue full time in the VUMC OMS residency program.

With a case-based, system-based learning model and personalized medical school curriculum, there are generous opportunities for the OMS resident-medical student to explore areas of personal interest and emphasis programs for an outstanding medical/surgical education. The program prepares residents for the community practice of oral and maxillofacial surgery as well as for advanced fellowship training and academic careers.

Areas of clinical strength include the comprehensive management of all facets of facial trauma, benign and malignant head and neck pathology, orthognathic surgery, facial reconstruction, secondary cleft care, and dental-veolar surgery and implants with an emphasis on implant site development.

Applications to the OMS-MD program are accepted through ADEA PASS (www.adea.org/PASSopp) beginning in mid-May of each year. Applications are due via the PASS system by September 15 of each year, and interview invitations are sent directly to selected candidates. Interviews are conducted in the months of October and November. Detailed information can be found at www.mc.vanderbilt.edu/deptooralmaxillsurgery/28484.

The selection process for applicants emphasizes past academic performance, personal attributes such as a sound work ethic, dedication, honesty, and a demonstrated commitment to postgraduate training in oral and maxillofacial surgery. The latter may be demonstrated through completion of one or more OMS externships, preferably of at least two (2) weeks’ duration. Letters of recommendation are required and specified by the PASS application information for this program. Such letters are very carefully reviewed and should be provided by dental school faculty who can share personal knowledge of the applicant’s qualifications, commitment, personal attributes, and accomplishments.

One trainee is identified annually through the OMS residency selection process. The OMS department recommends the selected candidate to the School of Medicine Admission Committee. The Admission Committee reviews the applicant’s credentials and makes an M.D. program admission determination.
M.D. Dual Degree Programs

For all M.D. dual degrees, except the M.D./Ph.D., the first three years are normally spent in the medical school program. Ideally, students will apply for dual degree status before enrolling in either degree program. However, M.D. students may elect to apply for admission to a recognized dual degree program at any time during their first three years in the medical school. Students who apply for admission to the medical school during their first year in another recognized dual degree may also be considered for dual degree status.

In most cases, after year three of the M.D. curriculum, students begin work on their other degree program. Depending on the other program, students may complete the second degree before returning to the medical school. The dual degree program allows students to reduce the period of time required to complete each degree separately, usually eliminating one full year of study.

Medical Scientist Training Program (MSTP)

The central goal of the Medical Scientist Training Program (MSTP) at Vanderbilt University is to train leaders in academic medicine. Our program is based on solid clinical and research training and is designed to foster the development of independent scientific careers. We provide students with an integrated curriculum comprising a strong core education in medicine and intensive training in scientific inquiry. Successful completion of the program leads to both the M.D. and Ph.D. degrees. MSTP students come from a diverse applicant pool drawn from throughout the nation and abroad.

MSTP Curriculum

The MSTP is a dual endeavor between the Vanderbilt University School of Medicine and the Vanderbilt University Graduate School. Trainees are required to fulfill all of the requirements for both the M.D. and Ph.D. degrees. Since some competencies for the M.D. degree are met by the graduate school experience, it is possible for MSTP students matriculating July 2013 or after to complete the M.D. program in a total of three years. The MSTP allows both dual and alternating enrollment in the School of Medicine and the Graduate School. MSTP students will typically complete the FMK and FCC phases, exit for graduate studies, then return for a single year in the Immersion Phase.

The cornerstone of the Vanderbilt MSTP is training in scientific inquiry afforded by a rigorous Ph.D. experience. MSTP trainees complete the first two years of the medical curriculum prior to the initiation of research training.

Following completion of two laboratory rotations, trainees select a laboratory and department for graduate studies. This selection is formalized before the end of the second year of medical school. Requirements for successful completion of the Ph.D. degree are the same for all students at Vanderbilt. The Ph.D. thesis must be successfully defended prior to reentry into medical school.

Most MSTP students will begin the third year of medical school in early July with the Clinical Immersion phase of their training.

To facilitate the training of clinical investigators, we developed a distinct track within the Vanderbilt MSTP called the MSTP-Clinical Investigation Track (MSTP-CIT). The goal of the MSTP-CIT is to provide comprehensive training in science for physician scientists engaged in translational and patient-oriented research. This program is intended for students who enter the MSTP after the third year of medical school or during residency or fellowship.

MSTP Program Activities

There are a number of educational programs developed specifically for the training of physician scientists in the MSTP. A brief summary of the major activities can be found in the Programs and Policies section under Special Program Requirements (page 43 of this catalog).

Financial Support

Funding for tuition and stipend is provided for those who gain admission to the Medical Scientist Training Program. A training grant from the NIH supports about twenty percent of the expenses for the MSTP; the remainder comes from institutional support and philanthropy.

M.D./J.D.

Students must apply separately to both the Vanderbilt University School of Medicine and the Vanderbilt Law School and be accepted by both programs to pursue the dual M.D./J.D. degree.

Students in the dual M.D./J.D. program will have the opportunity to complete both degrees in six years.

M.D./M.S. in Biomedical Informatics

Students must apply separately to both the Vanderbilt University School of Medicine and Vanderbilt’s Biomedical Informatics Department and must be accepted by both programs to pursue the dual M.D./M.S. in biomedical informatics degree.

Students in the dual M.D./M.S. in biomedical informatics program will have the opportunity to complete both degrees in six years.

M.D./M.Div. and M.D./M.T.S.

Students with interest in medical and divinity degrees will have the opportunity to enroll in one of two dual degree programs. Students must apply separately to the Vanderbilt University School of Medicine and the Vanderbilt Divinity School and be accepted by both to pursue the M.D./M.Div. (M.D./Master of Divinity) or the M.D./M.T.S. (M.D./Master of Theological Studies) degree.

Students in the dual M.D./M.Div. program will have the opportunity to complete both degrees in six years.

The Master of Divinity is a professional degree and prepares students for the practice of ministry. This program has a required field education component as part of the Master of Divinity degree requirements. In this program, students will carry 15 credit hours per semester while in the Divinity School.

M.D./M.Ed.

Education is an integral part of medicine. The word “doctor” comes from the Greek word meaning “teacher.” Whether a student chooses a career in research or clinical practice, there will always be a need to teach students, patients, and colleagues. Students who choose the M.D./M.Ed. dual degree program may be interested in patient education or in a career in an academic center working in medical education. They also may be interested in leadership positions at the national level that interface with health policy and education. Education will be a large part of prevention in future medical practice.
Students must apply separately to both the Vanderbilt School of Medicine and Peabody College of Education and Human Development and be accepted by both programs to pursue the dual M.D./M.Ed. degree.

Students in the dual M.D./M.Ed. program will have the opportunity to complete both degrees in five years.

M.D./M.P.H.

Students must apply separately to the M.D. and the M.P.H. programs in the School of Medicine and be accepted by both programs to pursue the dual M.D./M.P.H. degree.

The M.P.H. degree requires 42 academic credit hours of course work, which include didactic core and track-specific courses, as well as courses associated with the public health practicum and thesis.

Dual degree students spend a minimum of four terms focused on M.P.H. required course work. Students typically complete most or all of the required 42 credit hours during these four terms. The summer term includes didactic courses in the month of May and the completion of the public health practicum.

The M.D. program’s Research Immersion Phase may be completed before matriculating in the M.P.H. program, and/or it may be integrated with the M.P.H. program’s thesis requirements. This time should be planned in advance with input from both the M.D. and M.P.H. programs.

An important component of the M.P.H. program is a mentored research investigation. Pre-identification of a qualified faculty member willing to serve as the student’s mentor should be arranged with the help of M.P.H. program staff.

Before a dual degree student can matriculate in the M.P.H. program, he or she must be in good academic and financial standing with the M.D. program and receive approval for his or her plan of study from the M.P.H. program director.

Students in the dual M.D./M.P.H. program will have the opportunity to complete both degrees in five years. Additional information may be found at medschool.vanderbilt.edu/mph/md-mph.

M.D./M.B.A.

Students must apply separately to both the Vanderbilt University School of Medicine and Vanderbilt’s Owen Graduate School of Management and be accepted by both programs to pursue the dual M.D./M.B.A. degree.

Students in the dual M.D./M.B.A program will have the opportunity to complete both degrees in five years. The first three years are spent in medical school. Students spend their fourth year at the Owen School and then spend the fall semester of year five in medical school and the spring semester of year five at the Owen School.

M.D./M.A. in Medicine, Health, and Society

In 2008, the Vanderbilt University Faculty Senate approved a master of arts degree in Medicine, Health, and Society (MHS). The proposal for this fully interdisciplinary degree originated from the Vanderbilt University Center for Medicine, Health, and Society (CMHS), which was established in 2003. The goals of CMHS are to promote the study of health and health care in their social, cultural, and historical contexts, and to explore the interface of bioscience, technology, and the humanities.

In addition to educating outstanding clinicians, Vanderbilt University School of Medicine is committed to developing future leaders and scholars in medicine. We recognize that the current challenges facing health and health care demand leaders and scholars in many areas related to medicine. The M.A. in MHS allows selected students to extend their scholarly interests in interdisciplinary areas, although prior work in one of those areas is not required. The MHS degree provides students with additional knowledge and research experience to prepare them for academic careers focused on the political, social, economic, and cultural contexts of the practice of medicine, as well as on biomedical ethics, patient-provider relationships, and health policy.

Students must be accepted by both the Vanderbilt University School of Medicine and the Graduate School, and acceptance to one program will not ensure acceptance to the other.

Dual degree students will be able to enter the M.A. program after any year of medical school. If students choose to begin their M.A. studies after the fourth year, they will be allowed to delay graduation until after completion of both degrees, as long as they are officially enrolled in the dual degree program. Requirements for the M.D. degree will be the same as those for non-dual-degree students. Students will have the opportunity to complete both degrees in five years.

Other Dual Degree Programs

M.P.H./M.Ed. (International Education Policy and Management)

Students interested in the M.P.H. program and the M.Ed. in International Education Policy and Management program will have the opportunity to complete both degrees in three years of study (seven academic terms).

Students must apply and be accepted separately to both the M.P.H. program in the School of Medicine and the M.Ed. program in Peabody College of Education and Human Development.

The M.P.H. degree requires 42 hours of academic credit which include didactic core and track-specific courses, as well as courses associated with the public health practicum and thesis. Dual degree students spend a minimum of three terms (fall, spring, and summer), or one academic year, focused on M.P.H. required course work. They typically complete 36 or more credit hours during these three terms. The summer term includes didactic courses in the month of May and the completion of the public health practicum.

M.P.H./M.A. (Latin American Studies)

Students interested in the M.P.H. program and M.A. in Latin American Studies program will have the opportunity to complete both degrees in three years of study (seven academic terms).

Students must apply and be accepted separately to both the M.P.H. program in the School of Medicine and the M.A. in Latin American Studies program in the Graduate School.

The M.P.H. degree requires 42 hours of academic credit which include didactic core and track-specific courses, as well as courses associated with the public health practicum and thesis. Dual degree students spend a minimum of three terms (fall, spring, and summer), or one academic year, focused on M.P.H. required course work. They typically complete 36 or more credit hours during these three terms. The summer term includes didactic courses in the month of May and the completion of the public health practicum.
Other Single Degree Programs in the School of Medicine

Professional Programs in Hearing and Speech Sciences

Doctor of Audiology

The doctor of audiology (Au.D.) is a four-year post-baccalaureate degree which replaced the master of science degree as the requirement for the entry-level practitioner of audiology. The doctor of philosophy degree continues to be offered to students interested in becoming teacher/investigators.

Practicum sites include the Vanderbilt Bill Wilkerson Center, Odess Otolaryngology Clinic, Veterans Affairs Medical Center, and several hospitals and practices in the metropolitan Nashville area. At present, Vanderbilt’s Au.D. program is ranked #1 in the nation by U.S. News and World Report.

The Au.D. program encourages applicants with backgrounds in such areas as communication disorders and other health-related professions, biomedical sciences, psychology, and psychoacoustics. All students must possess GRE scores consistent with Vanderbilt standards, a strong record of past academic achievement, a commitment to hearing health care, excellent oral and written communication skills, a willingness to work collaboratively, a strong work ethic, perseverance, and strong organizational and time management skills.

The doctoral (Au.D.) degree program at Vanderbilt University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Blvd., #310, Rockville, MD 20850, (800) 498-2071 or (301) 296-5700.

Please visit our website at www.mc.vanderbilt.edu/ghss/ for additional information.

Master of Education of the Deaf

The Department of Hearing and Speech Sciences (DHSS) offers a master of education of the deaf (M.D.E.) degree. This one- to two-year program emphasizes the development of spoken language and auditory skills for children who are able to develop those skills. The DHSS is home to a unique, interdisciplinary approach to teacher training by combining training in audioloogy, speech-language pathology, and deaf education. The Mama Lere Hearing School in our National Center for Childhood Deafness and Family Communication serves as the professional development school for the DHSS deaf education program. This auditory oral school for children who are deaf or hard of hearing is known for its outstanding work in the areas of speech development, auditory training, cochlear implant habilitation, language, and reading.

Students entering the Master of Education of the Deaf program are required to have an undergraduate degree in deaf education, special education, early childhood education, or general education and must have teacher certification in same. The program will be one year in length (three semesters including summer plus Maymester) for those coming in with a background in deaf education and two years (five semesters including summer plus Maymester) for those with no background in deaf education.

Please visit our website at www.mc.vanderbilt.edu/ghss/ for additional information.

Master of Science (Speech-Language Pathology)

The master’s degree program in speech-language pathology (S.L.P.) is administered through the Vanderbilt University School of Medicine. The program provides clinical education leading to professional certification in speech-language pathology. The five- or six-semester program (depending on background) spans up to two calendar years of full-time study. Students without a background in communication disorders will require an extra semester. Many clinical opportunities are available throughout the program. The program culminates in a ten-week clinical externship. The program meets or exceeds American Speech-Language-Hearing Association requirements. Cochlear implant, autism courses, and education courses are a part of the curriculum for students with interests in those areas. There is also a thesis option.

Students with backgrounds in such areas as communication disorders and other health-related professions, biomedical sciences, psychology, and linguistics are encouraged to apply. All students must possess GRE scores consistent with Vanderbilt’s standards, a strong record of past academic achievement, a commitment to perseverance, and exceptional organizational and time management skills.

The master’s (M.S.) degree program in speech-language pathology at Vanderbilt University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Blvd., #310, Rockville, MD 20850, (800) 498-2071 or (301) 296-5700.

Further information regarding graduate programs in hearing and speech sciences may be found online at www.mc.vanderbilt.edu/ghss/.

Professional Programs in Medical Physics

Doctorate in Medical Physics

Master of Science in Medical Physics

Medical physics is an applied branch of physics devoted to the application of concepts and methods from physics to the diagnosis and treatment of human disease. Medical physicists are concerned with three primary areas of activity: clinical service and consultation, research and development, and teaching. Clinically, medical physicists are called upon to contribute scientific advice and resources to solve physical problems arising in radiological medical physics. Medical physics research typically involves the development of new instrumentation and technology, the development of new medical diagnostic and therapeutic procedures, and tests using existing technologies. Historically, this type of activity has been primarily in radiological imaging and radiation oncology, but now has a growing breadth of involvement throughout medicine. Many medical physicists not only provide clinical service, but also have faculty appointments at universities and colleges and are responsible for teaching future medical physicists, resident physicians, medical students, and hospital technical staff.

Vanderbilt University offers a professional doctorate in medical physics (D.M.P.) and a master of science in medical physics (M.S.M.P.). Vanderbilt additionally offers a master of science in medical physics (M.S.M.P.) only in passing to D.M.P. students who successfully complete the requirements for the M.S.M.P. during the first two years of the D.M.P. program.

These interdisciplinary programs are administered through the Department of Radiation Oncology and the Department of Radiology and Radiological Sciences in the School of Medicine and
Eligible candidates include those with bachelor’s, master’s, or doctoral degrees. At least two years of relevant, post-undergraduate professional experience is strongly preferred. Students in the M.P.H. program complete 42 academic credit hours of course work over five academic terms. The 42 academic credit hours include didactic core and track-specific courses, as well as courses associated with the public health practicum and thesis.

Additional information about the Vanderbilt M.P.H. program can be found at medschool.vanderbilt.edu/mpmph.

Master of Science in Applied Clinical Informatics

The Department of Biomedical Informatics (DBMI) at Vanderbilt University offers a two-year M.S. in Applied Clinical Informatics (M.S.A.C.I.) degree program. The objective of the program is to provide innovative clinical informatics education for working professionals in the health care field, with graduates assuming leadership roles in the application and innovation of clinical informatics nationally.

At many institutions, the role of clinical informatics (CI) leaders (known as clinical informaticians) has evolved from introducing electronic health records (EHRs) and practice transformation techniques to the effective evaluation and improvement of patient outcomes. Increasingly, local improvements must be integrated into accountable care organizations, clinically integrated networks, and other inter-organization collaborations that emphasize both quality improvement and cost reduction. These factors create a profound need for trained informatics professionals from a variety of clinical and nonclinical disciplines who share a deep theoretical and practical understanding of the care process, informatics concepts, and the changing social, organizational, and economic context in which health care is delivered.

Vanderbilt’s M.S. in Applied Clinical Informatics is designed to develop leaders who are prepared to advance the science and practice of clinical informatics.

The M.S.A.C.I. program is designed for clinicians who desire rigorous, practical informatics training (e.g., board-certified and non-boarded physicians, nurses, pharmacists) and professionals from a wide range of disciplines (e.g., information technology, public health, health care policy, business management, research informatics) who contribute and collaborate to promote safe, efficient, and effective health care.

Application Requirements. Applicants must hold a bachelor, master, or doctoral degree. At least two years of relevant, post-undergraduate professional experience, education, or training is strongly preferred. GRE, MCAT, or other pre-professional equivalent test scores are required. TOEFL exam is required for applicants whose primary language is not English.

Physician applicants who intend to apply for ABMS certification in Clinical Informatics must have a) graduated from an appropriately licensed medical school located in the United States or Canada, or from a school located elsewhere that is approved by the ABPM; and b) successfully completed a residency in an ABMS-participating specialty by June 2014, and must be either board-certified or board-eligible at that time.

Applications are not required to have formal training in Computer Science or a related discipline, but they need to demonstrate a strong interest and aptitude in Clinical Informatics. Students without a computational background are encouraged to take at least one introductory-level course in computer science before entering the program.
The Master of Science in Clinical Investigation (M.S.C.I.) program trains investigators in the techniques and processes used in patient-oriented research. This program provides direct, mentored experience in clinical and translational investigation and, through didactic work, provides trainees with a strong foundation in study design, biostatistics, biomedical ethics, human genetics, drug and device development, and genomics. The program typically takes two years to complete. Graduates successfully compete for grants such as the K23, VA Career Development Award, R01, and major foundation grants.

Eligible candidates for the M.S.C.I. program include:

- board-eligible physicians enrolled in a fellowship program at Vanderbilt or Meharry Medical College
- Vanderbilt or Meharry residents with protected time for research
- Vanderbilt faculty members with the consent of their department chairs
- Vanderbilt M.D. students after the completion of the first two years of medical education
- postdoctoral Ph.D.’s anticipating a career in patient-oriented research, and
- Ph.D. candidates in the Nursing School anticipating a career in patient-oriented research.

The M.S.C.I. program consists of four components:

**Mentored Research Apprenticeship:** The core of the M.S.C.I. program will be the completion of a mentored research project. The research must be patient-oriented and involve direct measurements on patient-derived samples or the use of investigational therapeutic or diagnostic techniques. The mentor must be an established physician-scientist with experience in patient-oriented research. Use of the Vanderbilt University Clinical Research Center will be encouraged. The research project will account for 80 percent of the candidate’s commitment to the program.

**Didactic Work:** Candidates must complete 35 credit hours of courses covering the essentials of study design, biostatistics, ethics, drug development, and data analysis. It is expected that course work will comprise 20 percent of the candidate’s time commitment. Core courses will be provided in two formats: intense courses that meet three hours each day (e.g., 8:00 a.m. to 11:00 a.m.) for four weeks and courses that can be offered less intensively (two to four hours a week for several months). The course schedule is designed to maximize protected time for patient-oriented research.

**Career Path Development:** In addition to the formal curriculum, a monthly seminar series, “Clinical Scientist Career Seminars,” will permit candidates to meet successful patient-oriented researchers. Topics of discussion will include academic “rules of the road,” time management, promotion/tenure issues, grants management, and overall program evaluation. Candidates will hone their scientific communication skills through an annual presentation at the MSCI Case Studies forum. The directors will host networking events with the candidates, clinical investigators, mentors, and visiting scientists.

**Master’s Final Project:** The candidate will submit a manuscript to a peer-reviewed journal, provide a completed proposal for a federal or major foundation grant, or develop a master’s thesis based on his or her research project. Completion of the thesis requirement will be evaluated by the M.S.C.I. Promotion Committee.

More information is available online at [www.medschool.vanderbilt.edu/msci/](http://www.medschool.vanderbilt.edu/msci/).

Visiting Students (General Information)

Vanderbilt School of Medicine welcomes visiting senior medical students, space permitting, into clinical electives. The visitor must be an enrolled fourth-year medical student in good academic standing at a U.S. medical school. Each approved student must be taking the elective for credit from his/her own school with his/her dean’s approval and must have adequate professional liability and health insurance coverage. In addition, the visitor must submit immunization records which will be reviewed by Vanderbilt University Student Health services. The visitor must be deemed compliant by Student Health before being cleared to rotate in a clinical setting. In addition, the visitor must show proof of a criminal background check conducted within 12 months of the rotation. Visitors must also have taken and passed the NBME Step 1 exam.

Visiting students may take ACE electives in the School of Medicine, space permitting, with the approval of the appropriate department and with concurrence of the course instructor and the associate dean for medical student affairs. Visiting students should not contact the course directors directly. All inquiries must be made through the Office of Enrollment Services. Failure to apply through this office may result in the student’s not being able to take the course.

Students wishing to visit at Vanderbilt School of Medicine should submit a Visiting Student Application through the AAMC Visiting Student Application Service (VSAS). Applications will be processed eight weeks in advance of the requested rotation. For more information on VSAS, visit [aamc.org/vsas](http://aamc.org/vsas) or contact vsas@aamc.org. Applications are accepted beginning on March 15. A complete application includes a picture, CV, USMLE Step 1 Score, transcript, immunization form, and federal criminal background check report. All accepted students must confirm their participation by submitting a non-refundable $150 processing fee by check or money order payable to Vanderbilt University School of Medicine. Visitors are also required to participate in an orientation with the Office of Enrollment Services on the first day of their rotation which will include training sessions in Bloodborne Pathogens, Standards of Conduct and HIPAA. Visiting students may not enroll for more than eight weeks of elective work at Vanderbilt without special approval. Complete information about the Visiting Student Program is online at [medschool.vanderbilt.edu/enrollment/visitingmed/](http://medschool.vanderbilt.edu/enrollment/visitingmed/).

Meharry Medical Students

The Vanderbilt School of Medicine has an alliance with Meharry Medical College which allows Meharry medical students to take electives at Vanderbilt, space permitting, at no additional cost. Applications must be submitted through the VSAS application program in the same manner as for other medical students (outlined above).

Osteopathic Students

Students from osteopathic medical schools may apply to Vanderbilt University School of Medicine through VSAS. The same process applies as for medical students (outlined above). Osteopathic students are also required to submit a non-refundable processing fee of $150 upon approval and placement in an elective course. Not all specialties at Vanderbilt University School of Medicine accept osteopathic students.
International Visiting Students

Vanderbilt School of Medicine accepts a finite number of international visiting medical students during November through April each year. International students are eligible for this program if:

- There are available spaces in existing courses;
- The student is in his or her final year of medical school;
- The student demonstrates proficiency in English as evidenced by the TOEFL score or has been taught in English;
- The student has been nominated by an institution with whom Vanderbilt has an existing collaboration or by a clinical faculty member at Vanderbilt who already has a professional relationship with the student.

International visiting students must pay a $250 registration fee and $750 per elective. The elective fee is waived for students at the University of Jordan with which Vanderbilt has a reciprocal relationship.

Information on the program is on the website at medschool.vanderbilt.edu/enrollment/international-students.

An affiliation agreement must be signed and in place before any domestic or international visiting student may rotate at Vanderbilt. Vanderbilt University School of Medicine has signed on to the AAMC Universal Clinical Training Agreement (UCTA) that was endorsed by the Liaison Committee on Medical Education (LCME). As a participant in this medical school registry, Vanderbilt requires only an implementation letter for any school that has signed on to the UCTA.
Degree Requirements for the Doctor of Medicine

Candidates for the doctor of medicine must be mature and of good moral character. In accordance with the requirements of the Liaison Committee on Medical Education, they must have spent at least 130 weeks of study as matriculated medical students. The maximum time for enrollment in required M.D. course work is six years, excluding time spent on an approved leave of absence or in work toward another degree.* All M.D. students must:

- Have satisfactorily completed the medical curriculum.
- Have taken Step 1, Step 2CK and Step 2CS of the United States Medical Licensing Examination by the following deadlines: waivers must be approved by ADMSA or ADUME
  - Have taken Step 1 prior to orientation week of the Immersion phase.
  - Have taken Step 2CK and Step 2CS by February 1 of their 4th year/final year of medical school.
- Have no outstanding unpaid balances with the university, other than sanctioned educational loans.

*Any student who exits the M.D. curriculum for approved experiences (research, dual degrees, leave of absence, etc.) will encounter different course options upon return. Requirements for these students will be aligned with expectations in the year of entry by applying the closest equivalent experiences available. Such students must meet with the associate deans of medical student affairs and undergraduate medical education to clarify requirements for their degrees.

Students may not be paid for work performed as part of their elective or required course work for credit. Exceptions to this rule are made only when students are in special programs, such as students on military scholarships, students in funded graduate certificate programs, students in funded M.D./Ph.D. programs, and students in the Oral Surgery program when acting as residents.

PHASE-SPECIFIC REQUIREMENTS

**Foundations of Medical Knowledge Phase (FMK)**

This phase of the curriculum (54 weeks) provides students a strong foundation in the basic sciences, humanities, and behavioral and social sciences that will support ongoing developmental learning over ensuing years. All students participate in meaningful clinical work during this phase to initiate their development as professionals, to provide clinical relevance for the foundational course work, and to provide an early understanding of health care systems.

Required courses include Foundations of the Profession; Human Blueprint and Architecture; Microbes and Immunity; Homeostasis; Endocrine, Digestion and Reproduction; Brain, Behavior and Movement; Physical Diagnosis; Learning Communities—FMK; CASE (Inquiry Program); and Foundations of Healthcare Delivery/Vanderbilt Program in Interprofessional Learning (FHD: Continuity Clinical Experience or VPIL1).

**Foundations of Clinical Care Phase (FCC)**

This phase (41 weeks) provides a strong foundation in clinical care delivery, including core clerkships, clinical electives, and longitudinal programs to support the development of clinical skills and clinical reasoning.

**Clerkships.** Students rotate through discipline-specific clinical clerkships including Surgery (8 weeks), Medicine (8 weeks), Pediatrics (6 weeks), Obstetrics-Gynecology (6 weeks), Neurology (4 weeks), and Psychiatry (4 weeks).

Ordinarily students will complete all clerkships before proceeding to the Immersion phase, but under special circumstances, students may defer one or more clerkships to pursue specific research or clinical interests. Such plans must be approved by the associate dean for undergraduate medical education. MSTP students who enter the FCC phase after the first clerkship block may defer one block to the Immersion phase, with the permission of the MSTP program director and the associate dean for undergraduate medical education. These students remain accountable for the longitudinal elements of the FCC phase.

**Electives.** All students are required to take two (2) two-week electives during the FCC phase. These experiences are designed to allow students to explore focused clinical areas and potential career choices. Students may select from offerings across many clinical disciplines. The scheduling of these electives is linked to the clerkship blocks in Pediatrics and in Obstetrics and Gynecology, with the elective immediately following the core clerkship.

A student may request an exemption from the elective requirement if she/he has a compelling reason. Reasons may include a need to make up clerkship time, illness requiring treatment, or other unavoidable life events that require the student to be away from school. When the student needs an exemption, she/he must contact the associate dean for medical student affairs (ADMSA) to make a formal request. The decision to grant the exemption is made by the ADMSA. Once an exemption is granted, the student is not required to complete the elective at a later date. The exempted elective will not appear on the transcript.

**Master Clinical Teacher Program.** Direct observations by a master clinical teacher are required during the FCC phase. MCTs observe students during patient encounters and provide immediate feedback and teaching of advanced clinical skills. The structure and expectations of the observations are consistent throughout the phase; however the logistics and scheduling of observations are specific to each clerkship. Participation in the MCT process is mandatory and contributes to the clerkship grade and portfolio.

**Diagnosis and Therapeutics.** This required course runs longitudinally throughout the phase. The course begins with a one-week intensive review of diagnostic approaches and continues throughout the FCC phase with a series of small group meetings aligned with specific clerkships.

The longitudinal elements (Foundations of Healthcare Delivery and, if participating, Vanderbilt Program in Interprofessional Learning, Learning Communities—FCC, Research and VC3) continue during the FCC phase. For ease of scheduling these activities have been aggregated to “longitudinal days.” All activities during longitudinal days are considered mandatory.
Immersion Phase (22 months)

The Immersion phase is a highly individualized experience that allows each student to create a schedule that optimally meets core educational needs, strengthens all competency domains, and builds specialized skill sets aligned with the student’s future clinical and scholarly trajectory. Students are required to complete 15 one-month blocks over this 22-month period (including the Research Immersion, described below). Students complete a mixture of experiences with varying levels of structured versus work place learning, including acting internships (AIs), integrated science courses (ISCs), advanced clinical experiences (ACEs), and electives. Requirements for experiences across various care settings (primary care, acute care) and clinical disciplines ensure a broad preparation.

Because the Immersion phase is intended to be individualized, each student must develop a personalized learning plan that is approved by his/her portfolio coach as meeting core requirements. Refer to the School of Medicine website for a full description of the requirements of the Immersion phase (medschool.vanderbilt.edu/ume/IP).

The longitudinal elements (Foundations of Healthcare Delivery and, if participating, Vanderbilt Program in Interprofessional Learning, Learning Communities, and VC3) continue during the Immersion phase. Some of this longitudinal course work is completed while participating in other core rotations. Some content is delivered in Intersession weeks, in which an entire class of students physically convenes. All activities during intersession weeks are mandatory.

The Research Immersion, an intensive 3-month scholarly experience, must be completed during the Immersion phase. Students must complete the PLAN course before beginning the Research Immersion. Students may request an extension of the Research Immersion of up to a total of six months (as a contiguous or non-contiguous block); approval is contingent upon satisfactory progress across all competency domains and will be granted by the Inquiry Program director. Students must complete (or have attained waivers for) all Research Immersion requirements before April (by the end of block #3) of the intended year of graduation.

LONGITUDINAL REQUIREMENTS

Several curricular elements span all phases of the four years of training.

Foundations of Health Care Delivery (FHD)

FHD is a longitudinal four-year course which embeds students into care delivery systems to:

- Prepare professionals with systems level skills necessary to provide care that is safe, effective, patient-centered, timely, efficient and equitable
- Integrate health systems science with clinical care
- Cultivate respectful professionals

The vision of the course is to offer students a longitudinal experience in which they learn about the systems of health care as well as foundational skills that help them better understand how health systems function, while at the same time gaining important skills to function in and eventually modify those systems. Graduation requirements are detailed at https://medschool.vanderbilt.edu/fhd/.

Vanderbilt Program in Interprofessional Learning (VPIL)

Students also have the opportunity to apply for VPIL, a two-year course where medical, nursing, pharmacy and social work students work and learn together as a team in a clinical environment. Participation in VPIL allows for medical students to fulfill a portion of their FHD credit required for graduation.

The goals of the program include:

- Cultivate respectful professionals
- Nurture self-directed workplace learners
- Prepare leaders who contribute to a collaborative practice-ready workforce
- Integrate the patient care experience with health professions knowledge
- Improve the health care delivery system by integrating systems knowledge with patient care.

Student teams learn to provide care to a panel of patients under the supervision of multi-professional attending providers. Teams also meet regularly for a variety of classroom-based and simulation activities focused on social determinants of health. Teams discuss cases together, go on a home visit and learn a variety of other clinic based skills that they can accomplish as a team. In their second year, student teams will design and implement a quality improvement project in their clinic and present it at an end of year Capstone event.

Graduation requirements for students accepted into VPIL are detailed at https://medschool.vanderbilt.edu/vpil/.

Learning Communities

Learning Communities course work capitalizes on strong relationships within the Colleges, utilizing small group formats to address key elements of professional development. The Learning Communities curriculum includes meta-cognition, medical ethics, medical humanities, health care policy, and narrative medicine, delivered in a discussion-based format. Leadership is also a focus of the Learning Communities curriculum.

Inquiry Program

Research and scholarship are addressed over a four-year curriculum that introduces students to the role of physician-researcher and provides education in the skills, knowledge, and attitudes required to succeed in that role. The Inquiry Program consists of the following components:

- FMK Phase: CASE (Clinical Applications of Scientific Evidence)
- FCC Phase: Discovery
- Immersion Phase: PLAN (Planning, Logistics, and Navigation) and Research Immersion

The research courses in FMK and FCC phases prepare each student to complete a Research Immersion of 3–6 months during the Immersion phase.

Core Clinical Curriculum (VC3)

The Vanderbilt Core Clinical Curriculum (VC3) is based upon a set of 25 common presenting complaints. These topics do not encompass all each student is expected to learn, but do represent core clinical problems that all graduates are expected to know. A set of learning objectives is established for each presenting problem. The VC3 topics are introduced in the FMK phase and continually revisited throughout the curriculum.
Core Entrustable Professional Activities for Entering Residency

The AAMC has defined 13 tasks that interns are expected to perform without direct supervision. Training in the Core EPAs is provided throughout the curriculum, and students are assessed throughout FCC and the Immersion Phase.

Special Doctor of Medicine Program Requirements

Medical Innovators Development Program (MIDP)

In addition to the graduation requirements for the M.D., the MIDP Program requires completion of the following elements:

1. Mentorship
   MIDP Forum provides all MIDP students a shared experience offering social and academic support throughout their career in the medical school. The Forum is a non-graded seminar course that is interdisciplinary in scope, drawing its topics from the three MIDP topic areas (imaging, biomedical informatics and systems, and medical devices). Invited speakers from academia, industry, and regulatory agencies, and entrepreneurs share their expertise in the Forum, and a Forum adviser provides mentorship.

   Topic-area mentorship. During the first two years, each student will have the opportunity to be assigned a faculty mentor from the student’s primary topic area (i.e., imaging, biomedical informatics and systems, or medical devices). The goal of faculty mentorship is to provide students with a focused sponsor who helps the student navigate the topic area, address any specific challenge areas, and identify resources the student can leverage to advance their topic-specific educational program. The mentorship is expected to continue throughout the M.D. program.

2. Service and Innovation Experience

   First-year students may take a domestic or international week-long trip in order to develop design skills related to innovation in culturally or socio-economically diverse environments. Students will prepare with training from engineering design experts and, as appropriate, industry advisers. A major emphasis will be to propose practical solutions by leveraging the multi-disciplinary expertise of team members and advisers.

3. Immersion Translational Design Lab—12 Weeks in Third Year

   The goal of the Translational Design Laboratory is to provide trainees with a real-world experience designing a translational solution to an unmet need in health or health care. Students will form teams to address the problems, and have regular meetings with Vanderbilt university faculty and, as appropriate, industry advisers. A major emphasis will be to propose practical solutions by leveraging the multi-disciplinary expertise of team members and advisers.

4. Immersion Phase Courses for Training in Business and Entrepreneurship

   To become successful applied physician-scientists, students in this program require focused knowledge about (a) the FDA approval process for medical devices; (b) the role of industry in the informatics, imaging, and/or device spaces; and (c) how synergistic opportunities can develop through academic-industrial partnerships. Two specialized immersion courses provide this content:
   - Introduction to Medical Devices and Technology Transfer (IMDTT)—8 weeks in first year of Immersion Phase
   - Health Care and Academic-Industrial Immersion Course—8 weeks in second year of Immersion Phase

5. Internship

   Each student will have the opportunity to take part in an internship with an industry partner. This engagement will focus on the application, extension, and synthesis of the track into a concrete innovation that has clinical and market value. The choice of industry partner will depend upon the track, experience, and intent of the student. The intended deliverables of this two-month engagement are both a product/innovation/device/novel process and the business model and valuation to support it.

6. Existing courses within the M.D. curriculum

   To provide requisite training in imaging, medical devices, and informatics, students are encouraged to pursue relevant course work in the M.D. curriculum, as well as other graduate-level courses in other schools at Vanderbilt University.

   Insert the following text above Medical Scientist Training Program (MSTP) section:

   Oral and Maxillofacial Surgery-Doctor of Medicine Program (OMS-MD)

   Students in the OMS-MD program meet in full the requirements for the doctor of medicine after three years of full-time training. OMS-MD trainees complete all requirements of the Foundations of Medical Knowledge (FMK) phase and Foundations of Clinical Care (FCC) phase as full-time medical students. By virtue of the immersive nature of the OMS residency program and the advanced standing of the OMS-MD student, the graduation requirements for the Immersion phase of the M.D. curriculum can be completed in a third, final year of the M.D. degree program. OMS-MD students complete eight four-week rotations during the Immersion phase of their M.D. training to satisfy the Immersion phase graduation requirements, which include:
   - 1 four-week rotation in Primary Care
   - 1 four-week rotation in Emergency Medicine
   - 6 four-week rotations in Oral and Maxillofacial Surgery

   Consistent with traditional M.D. graduation requirements, OMS-MD students are also required to complete Step 1 and Step 2 CS and CK examination requirements prior to graduation.

Medical Scientist Training Program (MSTP)

   Annual Retreat. The MSTP curriculum begins each year with a day-long retreat scheduled during the week that new students arrive on campus. The retreat provides an opportunity for interactions among MSTP students and faculty with a focus on cutting-edge science. Presentations are made by all students in the graduate phase of training.

   Seminar Series. The MSTP Seminar Series is a student-driven, interdisciplinary seminar course in a journal club format designed to: (i) foster development of critical thinking skills by appraisal of contemporary scientific literature, (ii) enhance scientific creativity through discussion of experimental approaches and techniques, and (iii) develop oral presentation skills. The Seminar Series incorporates topics drawn from all areas of biomedicine and clinical, case-based components. MSTP students choose the manuscripts to be presented with the
advice and consent of their student and faculty advisors. Junior (M1) medical students usually present in small group sessions, while junior graduate students present in the large group setting. Senior graduate-phase students present their thesis projects in small groups and are assigned mentoring responsibilities to assist the junior students with presentations.

Clinical Preceptorship Program. The MSTP Clinical Preceptorship Program provides our students with exposure to clinical medicine during the period of research training. Each student in the graduate phase is assigned to a clinical mentor in the field of his/her interest for the duration of graduate training.

Data Club. The MSTP Data Club provides a forum for students to discuss current research. All are invited to attend the weekly summer meetings, but the Data Club is particularly designed for graduate-phase MSTP students.

Leadership Workshops. The MSTP Leadership Workshops provide formal training in leadership. The main objectives are to offer students an opportunity to assess their individual leadership styles, discuss cases in research and clinical leadership, and receive didactic instruction in core leadership competencies. The workshops are held biennially.

Career Development Workshop. The MSTP Career Development Workshop provides formal exposure to the variety of career paths chosen by physician scientists. The main focus of the workshop is on the interval from MSTP graduation to the completion of clinical and research training. Panel discussions focus on career options for physician scientists, the transition to independence, and work-family balance. The workshop is held biennially.

Physician Scientist Speaker Series. The Physician Scientist Speaker Series offers an opportunity for students to interact with renowned physician scientists who serve as excellent resources and role models. Speakers are invited by the students each semester to present a research seminar to the Vanderbilt community and give an after-dinner talk to the MSTP class.

Community Outreach. MSTP students direct the annual “Mini-MSTP” for local public school students to promote interest in developing physician scientist careers. Participants are exposed to clinical and research challenges that duplicate real-life events in the hospital and the laboratory. Mini-MSTP events include a visit to the Center for Experiential Learning and Assessment for an encounter with simulation technology, laboratory experiments, and interaction with MSTP students.

Advising Colleges. The Vanderbilt MSTP is organized into four advising colleges that serve as the primary advising mechanism for students in the program. Each advising college is led by three faculty members and includes student members from each phase of the MSTP. Physician-Scientist Training Program (PSTP) trainees serve as Associate College Advisors to contribute to the career development of MSTP students.

Student Advisory Committee (SAC). The MSTP SAC is a student-led committee which provides a forum to express programmatic ideas, challenges, or opportunities for improvement. SAC advises the MSTP Leadership Team about all aspects of program administration and curriculum.

Attendance Policy for Doctor of Medicine

PHASE-SPECIFIC REQUIREMENTS

Foundations of Medical Knowledge and Foundations of Clinical Care Phases

Students will be apprised of the attendance policies for a course on the first day that the class meets. Standards will be provided in writing and in most classes will be reviewed verbally by course directors. It is the student’s responsibility to understand which sessions are mandatory, the definitions of excused absences and personal days, and the consequences for unexcused absences.

It is expected that students will arrive on time for courses and other school-related obligations and demonstrate respect for teachers, fellow students, and others while participating.

1. Unless stated otherwise, students are not required to attend general lectures in FMK courses. However, because many topics are covered only in lectures and many exam questions are derived directly from this material, attendance in lectures is strongly encouraged.

2. During the clerkships, students are excused from clinical duties so that they may attend clerkship didactic sessions. Students are strongly encouraged to attend unless there is an urgent clinical situation or one that will enrich their education.

3. Student attendance for assigned clinical duty is mandatory. Similarly, student attendance at all classroom sessions that include patients (actual or simulated) is mandatory. These sessions are not recorded by Mediasite or podcasts due to concerns regarding patient privacy.

4. Student attendance at all small group sessions is mandatory. Small groups may include discussion or presentation sessions, team-based or case-based learning sessions, laboratory sessions, etc., as defined for individual courses.

5. Student attendance at all examinations is mandatory. If, due to extenuating circumstances, a student cannot be present for an examination, the student must notify the course administration, the assistant dean for medical student assessment, and the associate dean for medical student affairs immediately. The student will work with course leadership/administration to make arrangements to satisfy the examination requirement. Regarding NBME shelf clerkship examinations, in special circumstances, students may be granted permission to take a missed shelf exam on the standard makeup date (8:00 a.m. on the second Tuesday after scheduled shelf).

6. Attendance is mandatory for all sessions of the longitudinal intersession days during the FCC phase, including all large group and small group sessions.

7. Student attendance may be required at other sessions, as indicated by the course administration.

8. Excused Absences from Mandatory Sessions. Students may be excused from mandatory sessions on the basis of serious health issues, family emergencies, religious holy days, or presentation of their work at meetings (other similar circumstances to be handled on a case-by-case basis). In these circumstances, students must notify the course administration at least 4 weeks in advance (or as soon as possible for
10. **Unexcused Absences from Mandatory Sessions.** All absences from mandatory sessions that are not defined above as excused or personal days are considered unexcused absences. Unexcused absences are unacceptable and will have a negative effect on the student’s competency domain evaluation and/or overall grade in the class.

Student Absence Request forms are available online at medschool.vanderbilt.edu/student-affairs/forms. Required information includes the date, time, and reason for the absence request. The signatures of (1) the block/ clerkship/course director and (2) the associate dean for medical student affairs or the assistant dean for medical student assessment are required.

At the discretion of the senior resident and the attending physician on the ward team, students may occasionally be given time off from clinical duties when working conditions permit. In the event such time off is expected to last longer than 24 hours, a signed Student Absence Request form must be submitted per the instructions above.

### Immersion Phase

**Introduction**

This policy pertains to all mandatory learning experiences (didactic, small-group, clinical, etc.) that take place during the Immersion phase of the VUSM M.D. degree program. Students are expected to attend all required sessions as described in the course syllabus. However, because specific situations may arise where a student may need to miss a required session, the following policy applies.

- **Planned absence (pre-approval required):**
  - Interviews
  - Religious holy days
  - Presentations of work at an advertised external scholarly meeting

- **Emergency absence (approval required post facto if necessary):**
  - Serious medical issues
  - Family emergencies

Students may submit requests to be absent for other life events, however these absences are highly discouraged and are likely not to be approved, given their impact on both the student learning experience and the clinical learning environment. Students are encouraged to plan their flex months to accommodate these events.

- Weddings
- Family events (non-emergency)
- Any other activities falling on required sessions

**Additional Considerations**

- Students should not make travel arrangements prior to receiving notification of the outcome of their request. Approval will not be granted just because travel arrangements have been made.
- Unapproved or denied absences will not be allowed.
- Students who are approved to miss more than two clinical days per course must make up the missed clinical time.
- Students will be held responsible for didactic material they miss during approved absences. Make-up work for other activities may be required by course faculty/directors.
- A student cannot miss more than two days, and cannot miss required sessions (see “Required Sessions” below) on a month-long rotation. Students who miss more than two days must make up the additional time (if absence is approved.) If additional absence is taken, but not approved, the student is at risk of failing the course.

**Examples of situations in which make-up work will not be allowed, and the student’s grade will be affected include:**

- Absences for which no request was made
- Absences for which a request was made and denied

**Request Process**

Students may request advanced permission to miss required educational activities due to circumstances outlined above. To make such a request, a student must:

1. Request permission from the course director using the VUSM Immersion Phase Absence Request Form at least four weeks in advance of the start of the course.
leaves request form is available at medschool.vanderbilt.edu/student-affairs/forms.

2. Email the signed VUSM Immersion Phase Absence Request Form to the associate dean for medical student affairs or assistant dean for assessment for approval.

3. Contact appropriate parties regarding the absence (i.e., course director, small group facilitator, peers, FHD course directors, research area heads, and/or supervising clinician, as appropriate).

4. Student will be notified by course leadership regarding required make-up work.

5. Student will be notified by email regarding whether the request is approved or denied.

If the absence is due to a health or family emergency (i.e., less than four weeks in advance), a student must:

1. Contact the course leadership (i.e., course director, small group facilitator, FHD course directors, research area heads, and/or supervising clinician, as appropriate) as soon as possible about the situation.

2. Submit the VUSM Immersion Phase Absence Request Form to the course director.

3. Submit the signed VUSM Immersion Phase Absence Request Form to the associate dean for medical student affairs or assistant dean for assessment for approval.

4. Student will be notified by course leadership regarding required make-up work.

5. Student will be notified by email regarding whether the request is approved or denied.

**Required Sessions**

Absences during/on the following required sessions are likely not to be approved, given their impact on both the student learning experience and the clinical learning environment. Students who miss mandatory educational activities without approval in an Immersion phase course on/during a required session may fail the course. Required sessions include the following, unless indicated by course director:

- First day of class
- Orientation
- Examinations
- Any day that extends a school holiday (except normal weekend breaks if they occur during a course)
- Learning Communities face-to-face College sessions
- FHD monthly face-to-face sessions
- Research mandatory sessions
- Intersession weeks—all sessions
- Other sessions as determined by course leadership/administration as described in the course syllabus

**Transportation**

During their medical school careers students may be placed for educational experiences in clinical sites located away from the Vanderbilt University campus. Students should be prepared to drive up to 35 miles from the Vanderbilt University campus to reach off-site placements. Students are responsible for their own transportation to and from all clinical sites for educational experiences, including all costs associated with that travel.

**Medical Student Duty Hours**

In order to encourage a well-rounded, balanced journey through the clinical years of medical school, it is the policy of Vanderbilt University School of Medicine that duty hours of medical students should reflect the general guidelines set forth for residents by the ACGME. We expect that:

1. Total required educational and clinical activities should not exceed eighty hours per week.

2. Clerkship and Immersion phase students should take one day off in seven; this is typically a weekend day.

3. Whenever possible, we suggest that when students take in-house call, they should be allowed to leave at noon of the following day, but should be expected to return for required didactic components of the clerkships or Immersion courses.

It is also expected that supervising house staff and attending physicians will be sensitive to student fatigue and total number of hours spent on clinical and educational activities.

**Extracurricular Work or Activities**

The School of Medicine does not regulate the outside work or activities of its M.D. program students, although it does take the firm position of discouraging outside work. No outside commitments may be assumed by medical students that may compromise their responsibilities at the medical school. If the outside obligation creates a conflict of interest, a student may be required to discontinue it.

**Leaves of Absence**

A student may request a leave of absence from school for any reason (personal, medical, research, dual degree, etc), subject to the approval of the associate dean for medical student affairs (ADMSA). The student must submit a written request to the ADMSA, outlining the nature of the requested leave and providing the starting and ending dates. The ADMSA may grant the student a leave of absence for up to one year as long as the student is in good academic standing. Prior to leave, a plan for re-entry into the curriculum and meeting requirements for graduation should be outlined with the ADMSA, with the assistance of the associate dean for undergraduate medical education (ADUME) as indicated.

A student on leave of absence may request an extension of the leave beyond one year, subject to the approval of the ADMSA. The student must submit a written request outlining the nature of the requested extension and providing a new ending date. A request for extension of a leave of absence must be submitted to the ADMSA at least three months before the ending date of the approved leave. Requests may be made for additional extensions using the process outlined above.

Students who are not in good academic standing may request a leave of absence using the request procedure described above, but approval of the leave may be granted only by the student’s Promotion Committee (the request will be presented to the Promotion Committee by the ADMSA).

Students pursuing the Ph.D. as part of the Medical Scientist Training Program are not required to request a leave of absence when entering the Ph.D. phase of the program. Leave of absence form is available at medschool.vanderbilt.edu/student-affairs/forms.
Expectations for Conduct Regarding Examinations and Work Submitted for Academic Credit

Faculty and Students' Responsibilities

1. In order to create and maintain an academic environment that promotes the highest professional standards, it is important to be transparent in the expectations of all students regarding conduct in examination settings and regarding all work submitted for academic credit. As stated in the Vanderbilt School of Medicine Honor Code, “By demanding great responsibility, the Honor System fosters an environment of freedom and trust that benefits the entire Medical School.” It is the responsibility of the faculty and staff to help protect the trusting environment created when the students agree to and sign the Honor Code pledge.

2. In order to facilitate transparency of expectations, students will be apprised of appropriate conduct for a given course on the first day of class or during the first week that a course meets. Standards of behavior for each course will be published in the course syllabus, and course directors will explain the pertinent points (especially in regards to examinations) verbally as well.

3. Appropriate attribution is expected for all work submitted for credit and in all entries to the electronic health record. Students must use proper citation practices and are expected to be aware of appropriate mechanisms to avoid plagiarism. Faculty will clarify if an assignment may be collaborative.

4. It is the student’s responsibility to be aware of and to adhere to the published guidelines for each course.

5. Incidents going before the Honor Council may be separately incorporated into the competency domain assessment and promotion committee review process as appropriate.

Expectations for Conduct in NBME Examinations

- “Suspicious behavior” during an exam may be construed as a violation of the Honor Code. Examples include looking at the work of other students and excessive talking or other disruptions.

- The use of cell phones is prohibited during the examination period, and phones should be stowed outside of the classroom until the examination is completed. Any cell phone brought into the exam room will be collected by the proctor until after the exam. If a student has a legitimate need to be available to urgent outside communications during the assessment period, the student must make the appropriate arrangements with the Office of Undergraduate Medical Education (OUME) prior to the assessment period. An OUIME staff member will be designated to receive any urgent communications and will notify the student of outside communications if the need arises.

- Personal belongings may not be brought in the seating area of the testing room. All materials, except computers for online examinations, must be left outside the room or deposited in the area designated for personal belongings. Items listed below are not permitted in the seating area of the testing room:
  a. Personal digital devices, calculators, or cellular telephones
  b. Recording/filming devices
  c. Watches with alarms, computer, or memory capability
  d. Radios or paging devices
  e. Reference materials (books, notes, or papers)
  f. Backpacks, briefcases, luggage, coats, or brimmed hats
  g. Beverages or food of any type
  h. Eyeglasses are permitted, but may be subject to inspection by proctors

For online examinations, students are responsible for confirming device eligibility, working with the educational technology team as needed.

- Students may leave the room only for restroom breaks during the examination. Leaving the room can be disruptive to other students, so it is preferred that students not leave the room unless it is unavoidable. Students will be escorted by a proctor to the restroom, and additional testing time will not be given.

- It is unacceptable behavior to discuss the exam or course materials with others during the exam.

- If a student finishes the exam before time is called, the student should leave quietly and not return to the classroom or immediate outside area until the examination period is over.

- Because students take exams at different times, material covered on exams SHOULD NOT be discussed inside or outside of the examination room during the designated exam period.

Assessment System for M.D. Program

Assessment Philosophy

The underlying philosophy of the assessment system at Vanderbilt University School of Medicine (VUSM) is that attainment of the knowledge, skills, and attitudes competencies needed for safe, effective, patient-centered care is a developmental process that occurs over many years of education, training, and practice. It is also based on a philosophy of continuous improvement. Therefore, the system is designed to:

- Guide learning with measures that benchmark performance against explicit expectations;
- Promote the skills needed for accurate and reflective self-assessment;
- Direct students to next learning steps and associated learning resources;
- Provide evidence for high-stakes decisions;
- Provide evidence of program effectiveness.

Since the abilities to accurately self-assess and subsequently create appropriate learning goals are also developmental processes, the system provides students with faculty coaches who assist them as they practice these skills in this process. Importantly, the system encourages students to assume increasing levels of responsibility for their own learning.

Elements of the Student Progress and Promotion Process

- VUSM Core Competency Domains: Medical Knowledge; Patient Care; Interpersonal and Communication Skills; Professionalism; Practice-based Learning and Improvement; Systems-based Practice; Leadership; and Scholarship.
Accrediting Council for Graduate Medical Education (residency practice-based learning and improvement, and (6) systems-based practice. The Vanderbilt University School of Medicine has established a High Pass (HP), Pass (P), Fail (F) will be applied in the following courses:

Grading Policy
The Vanderbilt University School of Medicine has established a series of learning objectives for its medical educational program that are aligned with the competency domains described by the Accrediting Council for Graduate Medical Education (residency requirements): (1) medical knowledge, (2) patient care, (3) interpersonal and communication skills, (4) professionalism, (5) practice-based learning and improvement, and (6) systems-based practice. The ongoing growth of competency in these domains defines the successful development of the physician and occurs during medical school and throughout one’s career.

Performance across these domains is assessed in every course and program. In addition to meeting course requirements, satisfactory performance must be maintained in each domain. Significant concern in any domain during a required course or clerkship will be brought to the attention of the student early enough to allow sufficient time for remediation. A student for whom major concern persists despite coaching may be given a failing grade (F) for the course and/or may not be promoted despite satisfactory performance in other categories.

Grading Scales
Pass/Fail. Final grades of Pass (P) or Fail (F) will be applied in the following courses:

- FMK: All courses
- FCC: All courses
- Immersion: Electives; Learning Communities; PLAN (Inquiry Program); Foundations of Healthcare Delivery

Honors/High Pass/Pass/Fail. Final grades of Honors (H), High Pass (HP), Pass (P), Fail (F) will be applied in the following courses:

- Immersion: All ACEs, ISCs, AIs, and the Research Immersion project

An H grade will be given to students for superior or outstanding achievement in all aspects of course work and multiple competency domains. An HP grade will be given to students with superior achievement in several, but not all, aspects/domains.

A P grade will be given to students who demonstrate satisfactory achievement in all aspects/domains. If any aspect of performance is marginal, this will be indicated by a designation of “threshold” in the domain(s) of concern. An F grade is given for unsatisfactory work resulting in failure. A student receiving a “below threshold” in any competency domain, or “threshold” in multiple domains, may receive an F for the course or clerkship.

Temporary Grades
P-star. A temporary grade of P* will be given to students whose performance is marginal because of important deficiencies in some aspects of course work which preclude awarding academic credit for completion of that course. The P* grade should only be applied if a plan for remediation, such as repeating an exam, has been put in place. The P* grade may be applicable for academic credit only after that remediation has been completed to the satisfaction of the course director, in which case the P* will be converted on the official transcript to a P. No grade higher than a P can be assigned after such remediation, and the domain(s) of concern will be marked as threshold in the final grade. In the absence of satisfactory remediation, the P* grade will be converted on the official transcript to an F. If a transcript is requested before final resolution, the P* will be present to indicate the course work has not yet been completed at a satisfactory level.

It is at the discretion of each course director whether such remediation options will be available for each course; this will be published in the syllabus. Any remediation plan must be completed in a timely manner: for courses in the Immersion phase, within six weeks of receiving the P* grade; in FCC, within six weeks of completion of the student’s final clerkship block; in FMK, prior to entry into the FCC phase. P* should not be used to indicate performance that is marginal but does not require course-specific remediation. Such a concern should be indicated as a threshold performance in the relevant competency domain(s). This will then be tracked across courses in the portfolio system. P* should not be used to indicate incomplete work.

Incomplete. A grade of Incomplete is to be used only to reflect that mandatory course work has not been completed (for example, if the student was ill and did not attempt the final exam). Incomplete should not be used when work has been completed but at an unsatisfactory level (i.e., work that requires remediation). Any incomplete course work must be completed in a timely manner: For courses in the Immersion phase, within six weeks of receiving the I grade; in FCC, within six weeks of completion of the student’s final clerkship block; in FMK, prior to entry into the FCC phase. There is no ceiling on the final grading or competency ratings for a student who previously received an Incomplete.

Clinician Assessments of Student Performance
Faculty and house staff providing primary evaluations of student clinical performance may be asked to report (1) behaviors consistently displayed by the student in the various competencies subject to evaluation, (2) narrative comments, (3) judgment of the level of supervision the student requires to complete core tasks, (4) an overall assessment of the student’s performance on service, and (5) an evaluation of suitability for appointment to residency on the service.

Faculty Advisers’ Roles and Responsibilities for Grading
The School of Medicine supports an active advising program for students in every year of medical school. This program supports faculty members who are selected and trained to counsel students regarding academic progress, career direction, and personal well-being. In order to preserve the integrity of the assessment system and protect students from either real or perceived bias, faculty members who serve in formal advisory roles will not assign summative course or clerkship grades without the assistance of a faculty grading committee. Faculty members who serve as advisers to individual students...
may provide formative feedback to students as part of other teaching responsibilities. If this feedback is submitted to a course director or grading committee as part of a summative assessment process, the advising relationship will be disclosed.

**Student Grievance Concerning Grades**

Students should seek redress of a problem with a grade as soon as possible after receiving the grade and in no case later than four weeks after the grade is released. Students with a problem should confer directly with the course director. Every effort should be made to resolve the problem fairly and promptly at this level. If the student cannot resolve the problem through discussion with the course director, the student should formally request an appeal, within two weeks of talking with the course director, from the student affairs (ADMSA). The ADMSA will inform the associate dean for undergraduate education (ADUME), which will prompt a review of the course’s assessment practices by the Standing Assessment Committee, as well as review of the individual student’s situation by the ADMSA, the ADUME, and a neutral faculty reviewer as indicated. If resolution is still not achieved, the associate dean for medical student affairs will refer the case to the senior associate dean for health sciences education, who will make the final decision.

**Medical Student Progress and Promotion**

Promotion committees of the faculty, in consultation with representatives of the faculty responsible for instruction, are charged with making recommendations to the dean and the executive faculty regarding progress and promotion of students. The executive faculty of the School of Medicine has final responsibility for the determination of medical student progress in the school.

Students who entered the curriculum in or before 2012, exited the traditional pathway and then return, will follow the promotion procedures applicable to the class with which they are scheduled to graduate; however, as much as feasible, their academic requirements will be aligned with expectations at the time of their entry to school. Such students are expected to confer with the ADUME and the ADMSA to clarify expectations prior to registering for their final year.

**Portfolio Reviews**

The portfolio review process serves to summarize evidence regarding student performance to direct future learning and to guide decisions of the promotion committees (see below). At times designated on the academic calendar for each phase, students will prepare either formative self-assessments (FSAs) or summative self-assessments (SSAs) that reflect on the current cycle. These self-assessments use a VUSM Core Competency format and are guided by templates in the portfolio.

Students begin their self-assessments by reviewing data accrued for each of the VUSM competencies in a core competency domain. This data will accrue from curricular assessments, and students may enter data that represents extra-curricular activities, such as volunteer work or organizational leadership. For each competency, students will designate a milestone level that describes their consistent level of achievement. Students will assign an overall progress level for each VUSM core competency domain:

For the FMK and FCC phases, these domain progress levels are:

- Below Threshold
- Threshold
- Target

For Immersion phase, these progress levels are:

- Below Threshold
- Threshold
- Target
- Reach

“Below Threshold” indicates failing performance. “Threshold” indicates a marginal performance that meets expectations in some areas but not all. “Target” indicates a performance that meets all expectations. “Reach” indicates a performance that exceeds expectations for students in that phase.

Because the attainment of competencies is a developmental process, the performance levels that define Threshold, Target, and Reach will progress with the phases of the curriculum.

After assigning a domain progress level for each core competency domain, students must compose the following:

- A brief justification for each level, citing specific assessment evidence. These justifications are guided by prompting questions and must be written for all core competency domains.
- A summary reflection indicating areas of strength, areas for improvement and areas of interest. This reflection will be guided by prompting questions.
- A personalized learning plan (PLP) based on the summary reflection. The PLP will consist of:
  - Learning goals
  - Metrics that will indicate attainment of learning goals
  - A timeline for achievement

Students must specifically address any core competency domain with a progress level of Threshold or Below Threshold both in the summary reflection and in the PLP.

Students submit self-assessments and PLPs electronically and schedule meetings with the portfolio coaches during specific review periods. Coaches review student portfolios prior to the meetings, and independently designate progress levels for each core competency domain. At the time of the meetings, coaches and students review assessments, discuss and attempt to resolve any differences in progress level determinations, and review PLPs for appropriateness. Because this process integrates performance evidence across courses, it is possible that a student’s performance could be designated as "threshold" or "below threshold" in a competency domain despite passing grades in all courses. The original student self-assessment, the coach assessment, and the report of the joint assessment resulting from the student-coach meeting will be retained in the portfolio. If differences between student and coach interpretations of evidence were not resolved during the student-coach meeting, this will be indicated in the accompanying form.
Promotion Committees

The dean or the dean’s designee, (usually the senior associate dean for health sciences education [SADHSE]), will appoint a Promotion Committee to each of three phases of training (FMK, FCC, Immersion Phase). Promotion Committees will meet regularly to review progress of individual students and the aggregate progress of the cohort of students in its assigned phase.

Each committee will consist of at least eight faculty members who represent a variety of clinical and basic science departments, as well as the broad diversity of the VUSM community. Each member will serve a four-year term, with terms rotating such that half of the committee is replaced every two years. The SADHSE will appoint a faculty chair for each committee, and the associate dean for undergraduate medical education (ADUME) oversees the promotion committee process. The chair of each committee may determine whether members must be physically present or may participate remotely for any given meeting. Every Promotion Committee member will be assigned a cohort of students to follow throughout the phase. Prior to each meeting, promotion committee members must review the portfolio and learning plan of each assigned student. Promotion Committee members will have complete access to the assessment evidence in the Learning Portfolios of all students assigned to them to assist in making these determinations.

Meetings will occur three times during the Foundations of Medical Knowledge (FMK) phase, twice in the Foundations of Clinical Care (FCC) phase, and three times in the Immersion phase. Additional meetings may be called by the ADUME if performance concerns arise regarding any individual student or as needed at the discretion of the ADUME.

Students to be discussed during committee meetings include:

- any student on probation;
- any student with a failing or marginal course grade;
- any student with a domain progress level of Threshold or Below Threshold;
- any case of unresolved differences between student self-assessment and the coach assessment;
- any student seeking special privileges that require committee permissions; and
- other students as deemed necessary by faculty or administration.

If a committee member cannot attend a meeting in person or remotely, another member of the Promotion Committee will be designated as a substitute. The committee member initially assigned to the student will share with the alternate member any information that he/she may have assembled in preparation for the meeting. Discussion will include input from the student’s portfolio coach, course directors, and other members of the committee.

The associate dean for medical student affairs (ADMSA), the ADUME, the assistant dean for medical student assessment, and the senior associate dean for diversity in medical education, will be non-voting ex officio members of each committee. In addition, course directors for their respective phases will attend Promotion Committee meetings to provide information about the class as a whole, and to answer questions that committee members may pose regarding individual students. Portfolio Coaches will also attend committee meetings during which any of their assigned students are scheduled for presentation. A quorum of the Promotion Committee shall consist of at least five of the voting members of a committee; however, any proposed dismissal requires the participation of all voting members, unless an exception is granted by the SADHSE.

Each PC is charged with making decisions or recommendations as follows:

Satisfactory Progress

Formative reviews will assess whether students are making satisfactory progress towards attaining the achievement levels required for promotion to the next phase, or towards graduation, based on review of the assessment data compiled in each student’s portfolio. The Promotion Committees will make a final determination regarding the correct domain progress levels based on the evidence in the portfolio as well as evidence presented during the committee meeting. Any students on probation will be closely re-evaluated during these meetings.

1. Satisfactory Progress: Generally for students with progress levels for all domains at Target or Reach and passing grades in all courses
2. Satisfactory Progress with Concern: Generally for students with 1-2 domains at Threshold (regardless of course grades) and/or P* course grade
3. Unsatisfactory Progress: Generally, for students with >2 domains at Threshold, persistent Threshold performance in any single domain over time, or any domain Below Threshold (regardless of course grades), and/or a failing course grade**. Ordinarily these students will be placed on academic probation. (See section on Probation below)

** Any performance deficiency that is serious enough to result in course failure must be attributed to one or more specific competency domains by the course director, which will automatically result in a Below Threshold level in that domain for that portfolio review cycle.

Students with designation of “Satisfactory Progress with Concern” or “Unsatisfactory Progress” will receive a Letter of Concern from the Promotion Committee that outlines areas of concern and expectations for improvement. Letters of Concern are not reported externally and are intended to assist students in avoiding adverse actions (see below). The PLPs for these students must explicitly address concerns and be approved by the Promotion Committee; the progress of such students will be reviewed at the next committee meeting. The Promotion Committee may require additional meetings between the coach and such students during the period between PC meetings. Students who fail a required block, course, or clerkship must repeat that element, or must have an alternate remediation plan that is approved by the course director. The remediation plan must be articulated in the PLP.

In addition, failing Step 1 or Step 2 Clinical Knowledge of the USMLE automatically results in a Below Threshold score in Medical Knowledge and must be addressed in the PLP; failing Step 2 Clinical Skills automatically results in a Below Threshold score in Patient Care and must be addressed in the PLP.

Promotion

Decisions regarding promotion will be made at the end of the FMK phase and the end of Foundations of Clinical Care (FCC) phase. In view of the integrated and individualized nature of the Immersion phase, meetings during this phase will focus on the academic progress of the individual students, granting eligibility for the national residency matching process (NRMP), and certifying eligibility for graduation.
Promotion Committees will determine whether students are ready for promotion based on successful completion of all phase requirements, as evidenced by passing grades in all required courses, and satisfactory progress in each VUSM Core Competency Domain. The Promotion Committee’s determination of satisfactory progress in competency domains will be based on review of the assessment documentation compiled in each student’s learning portfolio. Students must fully participate in the self-assessment and personalized learning plan (PLP) process in order to be promoted to the next phase.

The FMK and FCC Phase Promotion Committees will make one of the following recommendations for each student (see initial section under Promotion Committees, above, for frequency of Promotion Committee meetings):

1. Promotion to next phase
2. Promotion contingent upon authorized delayed completion of specified requirement(s). To support the individualized nature of our curriculum, situations may arise in which it is appropriate to permit special scheduling of educational opportunities. Students in good standing may request such scheduling flexibility through the ADUME. Some students in compliance with approved remediation plans also may be eligible for this action.
3. Promotion on probation
4. No promotion
   a. Targeted remediation, with later re-evaluation for promotion
   b. Repeat the phase on probation
   c. Dismissal

The Immersion Promotion Committee will make one of the following decisions or recommendations for each student in the fall of the anticipated final academic year of training (see initial section under Promotion Committees, above, for frequency of Promotion Committee meetings):

1. Promotion to senior status (eligible for match process)
2. Promotion on probation (eligible for match process)
3. No promotion
   a. Targeted remediation
   b. Dismissal

The Immersion Promotion Committee will make one of the following decisions or recommendations for each student in the spring of the anticipated final academic year of training:

1. Recommended for graduation
2. Not eligible for graduation
   a. Targeted remediation on probation
   b. Dismissal

Because the portfolio review includes assessment of competencies across courses, it is possible for a student to pass all courses and still have concerns within competency domains that warrant probation or dismissal.

Decisions on all actions other than dismissal (promotion, promotion on probation, no promotion with targeted remediation, or no promotion with repeat the phase on probation) are made by the Promotion Committee. The SADHSE will review those decisions upon the written request of the student as set out in the section on probation below.

Students will be notified by the committee chair and the ADUME of all Promotion Committee decisions. For the action of promotion, this shall generally be done in writing. For other actions of the Promotion Committee, in addition to written notification, the student will be informed in person by the ADMSA (if possible) in order to facilitate appropriate advising.

Eligibility for Special Experiences

All committees may serve a role in recommending students for special opportunities, such as dual degrees or leaves of absence.

Certification for Participation in Residency Match Process

Students apply to residency programs during the fall semester of the intended academic year of graduation. In the spring semester, the School of Medicine must officially certify that students participating in the match process are eligible for graduation. The Promotion Committee for the Immersion Phase will review student progress to make this determination in February. Any student with insufficient completion of requirements for graduation (accounting for planned course work in February, March, and April) could be withheld from the match process.

Medical Student Performance Evaluation

The Medical Student Performance Evaluation (MSPE) is created as a part of a student’s permanent record and is submitted through the ERAS system by October 1 for fourth-year medical students. Included in the MSPE are summative comments from performance evaluations throughout medical training. Generally, the associate dean for medical student affairs works with students on the creation of the MSPE. However, students may instead choose to work with the senior associate dean for health sciences education, the associate dean for undergraduate medical education, or the senior associate dean for diversity to create the MSPE. Students are neither asked nor expected to provide any reason or justification for their choice of MSPE writer.

Graduation

The Immersion PC will meet shortly before Commencement for final review of student progress. Students who have successfully completed all required curricular elements and who have demonstrated expected levels of achievement in each VUSM Core Competency Domain will be recommended for conferral of degree. These recommendations will be presented in written form to the dean and the executive faculty for final approval.

The university holds its annual Commencement ceremony following the spring semester. Degree candidates must have completed successfully all curriculum requirements and have passed all prescribed examinations by the published deadlines to be allowed to participate in the ceremony. A student completing degree requirements in a summer or fall semester may participate in Commencement the following May, and ordinarily the degree will be conferred at that time. Any student unable to participate in a Commencement ceremony will receive his or her diploma by mail.

Adverse Actions

Probation

Promotion Committees will ordinarily recommend that a student be placed on academic probation if course grades include any failures, or if competency progress levels are at Threshold for two or more domains, persistently at Threshold in a single
domain despite coaching or remediation, or at Below Threshold in any single domain.

Academic probation generally monitors performance in active course work for a period of one academic year. Probation serves three functions:

- It serves as official documentation that the student is deficient in areas related to academic performance and/or competency development.
- It provides a pathway that the student must follow in order to regain good standing. This may include remediation, maintaining appropriate performance standards, and/or adhering to professional expectations.
- It describes the consequences that will result if a student does not meet stated expectations during the period of probation.

Probation will be noted in the Medical Student Performance Evaluation and may be reported in graduation verifications (e.g., for medical licensure).

The personalized learning plans (PLPs) for students who are placed on probation must include a remediation plan that explicitly addresses the domains of concern and is approved by the Promotion Committee. The committee may add requirements to the PLP, such as regular meetings with the ADMSA or other advisers, and/or recommendations such as elimination of extra-curricular activities that may be interfering with satisfactory academic progress. All students who are placed on probation will receive a letter from the ADUME and the chair of the Promotion Committee. In this circumstance, the ADMSA will meet with the student prior to the committee meeting to hear the student’s explanation, including any mitigating circumstances that could affect the committee’s recommendations. The ADMSA will present the student’s explanation, as well as any mitigating circumstances, to the Promotion Committee. Alternately, the student may elect to appear before the committee in person, submit an explanation in writing, or ask another faculty member to appear on his or her behalf.

Any recommendation for dismissal will be presented by the ADUME to the dean or the dean’s designee which is normally the SADHSE. The dean or designee may reverse the recommendation, in which case the dean or designee will respond in writing to the Promotion Committee. The student prior to the committee meeting to hear the student’s explanation, including any mitigating circumstances that could affect the committee’s recommendations. The ADMSA will present the student’s explanation, as well as any mitigating circumstances, to the Promotion Committee. Alternately, the student may elect to appear before the committee in person, submit an explanation in writing, or ask another faculty member to appear on his or her behalf.

Any recommendation for dismissal will be presented by the ADUME to the dean or the dean’s designee which is normally the SADHSE. The dean or designee may reverse the recommendation, in which case the dean or designee will respond in writing to the Promotion Committee. In this circumstance, the Promotion Committee will consider whether probation or other action is appropriate under the guidelines above. If the dean or designee accepts the recommendation of dismissal, the decision is described in a notice to the student written by the promotion committee chair and the ADUME. This communication is presented to the student, in person whenever possible, by the ADMSA.

Student Recourse Regarding Promotion Committee Actions

Probation/Non-promotion

Students may ask for reconsideration of any decision for probation or non-promotion. The request must be made in writing to the associate dean for medical student affairs (ADMSA) within seven (7) calendar days of the committee decision. Reviews are carried out by the senior associate dean for health sciences education (SADHSE). The student may meet with the SADHSE or present any additional information in writing. The SADHSE will review the information presented by the student, information from the associate dean for undergraduate medical education (ADUME), and the minutes from the Promotion Committee meeting. The SADHSE will: (1) uphold the Promotion Committee decision, (2) request a meeting of the Promotion Committee for reconsideration of additional information, or (3) reverse the decision. The decision of the SADHSE will be provided in writing to the Promotion Committee. Even if the SADHSE reverses a decision of the committee, the SADHSE can require that the student follow any committee requirements and/or recommendations for addressing deficiencies.

Dismissal

Upon a decision of dismissal, a student will be notified in writing of that decision and of the following options:

Dismissal

Promotion Committees ordinarily will recommend dismissal only after a student has been given a reasonable probationary period to address deficiencies. Most often, this reasonable period consists of a full academic phase or academic year. Dismissal may also be recommended at any time for a student who demonstrates either a singular egregious behavior or is involved in one or more serious incidents inconsistent with the expectations for medical students at VUSM or in violation of university policy.

A decision to recommend dismissal requires participation of all promotion committee members, unless an exception is granted by the SADHSE. The committee will meet as soon as possible to consider the situation, including its severity, and render a recommendation. The ADMSA will meet with the student to discuss the student’s explanation, including any mitigating circumstances that could affect the committee’s recommendations. The ADMSA will present the student’s explanation, as well as any mitigating circumstances, to the Promotion Committee. Alternately, the student may elect to appear before the committee in person, submit an explanation in writing, or ask another faculty member to appear on his or her behalf.

Any recommendation for dismissal will be presented by the ADUME to the dean or the dean’s designee which is normally the SADHSE. The dean or designee may reverse the recommendation, in which case the dean or designee will respond in writing to the Promotion Committee. In this circumstance, the Promotion Committee will consider whether probation or other action is appropriate under the guidelines above. If the dean or designee accepts the recommendation of dismissal, the decision is described in a notice to the student written by the promotion committee chair and the ADUME. This communication is presented to the student, in person whenever possible, by the ADMSA.

Temporary Suspension

The School of Medicine reserves the right, through the SADHSE (or designee), to temporarily suspend a student for conduct disrupting or otherwise negatively impacting the learning environment, pending referral to the Promotion Committee or other appropriate process. The SADHSE will notify the student in writing of the conditions of the temporary suspension. If the student is reinstated, the student will work with the ADMSA to address any course work missed during the suspension.
1. Voluntary withdrawal from VUSM. The decision to withdraw must be presented in writing by the student to the ADMSA within seven (7) calendar days after the student is informed of the decision for dismissal.

2. Dismissal. If the student does not request to withdraw within the seven-day period, the dismissal will take effect on the eighth calendar day.

3. Appeal. The student must make a formal request for appeal in writing (which may include electronic mail) so that it is received by the ADMSA within seven (7) calendar days after the student is informed of the decision for dismissal. A student who requests an appeal forfeits the option to withdraw. The ADMSA will serve as the student’s information resource in the appeals process and will inform the ADUME and the SADHSE of the student’s request for appeal.

If a dismissal decision is appealed, the student will be placed on administrative leave and may not participate in patient care duties until the appeal is resolved. The dean or dean’s designee, usually the SADHSE, will assemble and convene a review panel consisting of at least five (5) members of the executive faculty for an appeal review meeting within 30 days. In this review, the role of the dean or dean’s designee is purely administrative, and he or she has no decision-making authority in this context. In preparation for the meeting, the ADUME will make available any relevant information/documentation to the panel, which will include all the assessment components of the student’s portfolio. The ADMSA will provide information to the student about the process. The student may choose to be present at the appeal review meeting and/or make a presentation in writing, which may contain documentation from other students, faculty members, and/or other sources. The student cannot have other representatives at this meeting. The chair of the Promotion Committee and the ADUME will attend this meeting to present the findings of the Promotion Committee. The ADMSA will also attend the meeting to answer questions from the review panel. The review meeting is conducted without the presence of attorneys for either party. However, either party may consult with its own counsel prior to the review meeting or during any breaks that might take place during the meeting. If the review panel upholds the decision, the student will be dismissed without the opportunity to withdraw. If the review panel reverses the decision, the review panel will provide the Promotion Committee with its written findings and will refer to the Promotion Committee for consideration of whether probation is appropriate and, if so, for determination of the requirements and conditions to accompany probation. The decision of the review panel will be final for the school.

Withdrawal from School

Students who wish to withdraw from the School of Medicine for any reason must do so in writing to the associate dean for medical student affairs. In some cases, the student may be able to receive a refund of tuition, but it is important that the student discuss this decision with VUSM Office of Student Financial Services staff before moving forward with the process. A student who has been dismissed from school, but decides to appeal the decision, is no longer able to choose to withdraw. If a student withdraws, reentry is possible only through the application process.

M.D. Student Support and Advising

Vanderbilt University School of Medicine (VUSM) provides comprehensive advising resources to promote student wellness and success in medical school. The advising program provides distinct resources to address the three domains of student life: academic, career, and personal. Students are introduced to the system of advising at orientation prior to entering their first year of medical school. Subsequent discussions of advising resources take place in a number of settings during the first semester of medical school. In addition to the formal advising system, a variety of other resources for student academic support exist, including phase/course clerkship directors, course self-assessment modules, group study, and optional review sessions.

Students are strongly encouraged to seek assistance and support of various types as needed during training. The abilities to self-identify a need for assistance/support and to reach out to resources are important professional skills, and students are expected to develop these skills during their medical school careers.

School of Medicine Resources

VUSM Office for Medical Student Affairs. This office provides resources to support all students. The ADMSA is available for individual meetings and hosts weekly office hours.

VUSM Colleges. All entering students are placed in one of the four advisory Colleges upon matriculation—Batson, Chapman, Gabbe, or Robinson. Each College is led by two faculty College mentors, with whom students meet regularly in groups and individually, as needed. At these meetings the College mentor and student discuss the student’s progress, wellness, and career exploration. In addition to group and individual meetings, the College mentors have weekly office hours, as well as study breaks for students. Students may connect with their College mentors at any time for guidance and support. Although College mentors provide direct teaching in a variety of settings, they do not assign student grades, and College mentors do not make decisions regarding promotion of students from one year to the next. College mentors do not have access to the students’ academic records.

Learning Portfolio. Beginning with the entering class of 2013, each student is assigned to a Portfolio Coach and develops a learning portfolio. Students meet with their Portfolio Coaches individually at designated time points to critically review individual performance data and establish academic goals across all domains of competence. Additionally, each student should meet with his/her Portfolio Coach on an as-needed basis to review any specific academic concerns. Refer to the Medical Student Progress and Promotion section of this catalog for a detailed description of the learning portfolio system and portfolio coaches.

Student Assistance Program. This program provides students with guidance in study skills, test-taking strategies, and general advice for academic success. Students may directly contact the Student Assistance Program director regarding academic concerns.

VUSM-Funded Tutoring Program. Tutoring funded by the School of Medicine is available for students who are having serious difficulty academically or who are deemed by the block/course director or the Student Assistance Program Director to be at risk for marginal or failing performance (ordinarily ~75 percent or less).

Decisions about access to this program and about tutor assignments are made jointly by the block/course director(s) and the director of the Student Assistance Program. This allows the matching of individual student needs with individual tutor strengths and assures that tutoring resources are distributed appropriately. Generally it is expected that students will have
availed themselves of other forms of student academic support (e.g., course self-assessment modules, group study, review sessions, etc.) before entering formal tutoring.

If a student has failing or marginal performance in a block or course, and wishes to obtain a VUSM-funded tutor, he/she must follow these steps:

a. The student sets up a meeting to consult with the block/course director(s) and/or the Student Assistance Program director.

b. Once the student’s situation has been assessed by the block/course director(s) and the Student Assistance Program director, the appropriate level of tutoring support will be determined.

c. On assignment of a tutor, the student will contact the assigned tutor to set up tutoring appointments.

d. The student should also review performance challenges with his/her Portfolio Coach and include the area(s) of concern in his/her Personalized Learning Plan.

Because VUSM-funded tutoring services require no payment from students, those who receive tutoring are responsible for signing a tutoring sheet that confirms that he/she worked with the assigned tutor for the time indicated by the tutor. Tutoring sheets must be submitted by the tutor to the Office of Medical Student Affairs in a timely manner.

The duration of time during which VUSM-funded tutoring services are provided is determined by block/course directors and/or the Student Assistance Program Director. Eligibility for services is reassessed on an ongoing basis once tutoring begins. Individual tutor assignments may be changed or adjusted over time to meet the needs of the pool of students requiring aid.

Important note about VUSM-funded tutoring: In situations where VUSM-funded tutoring has been recommended, and the student decides not to avail him/herself of this service, he/she should be aware that this may be viewed negatively by the Promotion Committee in the context of ongoing academic difficulty.

Privately Paid Tutoring. Students who are performing adequately but wish to seek additional assistance through private tutoring (e.g., from upper classmen) are responsible for arranging for these services and for payment.

VUSM Office for Diversity Affairs (ODA). This office provides resources to support students on issues related to disability, ethnicity, gender, religion, and sexual orientation. The many programs in ODA serve individual students’ needs and educate the medical school community on diversity issues.

University Resources

The university provides a range of services to School of Medicine students, including access to medical care, psychological counseling, and disability accommodation. The university also provides resources to protect all students from discrimination, harassment, and retaliation. Information on these and other university services may be found in the Life at Vanderbilt chapter of this catalog.

Faculty Support and Advising Roles

Many individuals provide advising and support to VUSM students. Each of the advising roles at Vanderbilt is defined in a manner that makes it distinct from, yet complimentary to, the other roles in the system. Each faculty member in an advising role undergoes development on the specific role as well as the overall advising system. The product of faculty development is an advisor who is able to perform his or her advising role responsibilities and is also able to refer students to resources as appropriate to individual student needs.

Managing Multiple Faculty Roles

Faculty members engaged in multiple educational roles can face competing demands, which may directly or indirectly affect (or have the appearance of affecting) an individual’s professional judgment in exercising any educator duties and responsibilities. Of particular concern to students is the intersection of roles involving advising students regarding personal or academic struggles with roles in assessment of student performance or assigning grades.

To identify and manage potential conflicts, the VUSM administration established a system that defines compatible and incompatible faculty roles within the educational enterprise. Authority over this system resides centrally, with the Office of the Senior Associate Dean for Health Sciences Education (SADHSE).

The Educator Role Matrix (vanderbilt.edu/rolematrix) illustrates roles that have been identified as including some potential for conflict. The matrix places advising roles in one of two categories as they relate to assessment activity: 1) Manageable conflict, and 2) Incompatible conflict. For manageable conflicts (yellow on matrix), the adviser must develop and submit for approval by the senior associate dean for health sciences education a plan of action that mitigates or eliminates the role conflict.

The Office for Medical Student Affairs maintains records of Role Conflict Management Plans (management plans are available to students upon request). When roles are determined to be incompatible (red on matrix), the faculty member must relinquish either the assessing or advising role. Before each new academic year the associate dean for medical student affairs (ADMSA) reviews all educators’ roles and existing conflict management plans to ensure that they conform to the school’s standards. Any new conflict management plans required are completed prior to the commencement of the academic year.

Key Advisory Roles

Associate Dean for Medical Student Affairs (ADMSA): The ADMSA is a member of the VUSM administration. Her/his primary role is advising on academic, career and personal concerns. The ADMSA has office hours and meets with students in all years of training. The ADMSA is the primary VUSM official designated to write each student’s Medical Student Performance Evaluation, but students may request that another school official complete the MSPE. The ADMSA also writes letters of recommendation for students applying for scholarships or various academic opportunities. The ADMSA oversees the Colleges Program, the Student Wellness Program, and the Careers in Medicine Program. The ADMSA has access to all academic records. The ADMSA may not occupy any of the advisory or assessment roles contained in the Educator Role Matrix.

Associate Dean for Undergraduate Medical Education (ADUME): The ADUME is a member of the VUSM administration. Her/his primary role in the medical school involves development and delivery of curriculum and assessment for the M.D. degree. The ADUME has office hours and can meet with students in any year of training to discuss academic and career concerns. The ADUME frequently meets with students who are navigating the curriculum to maximize various academic opportunities. The ADUME has access to all academic
records and administers the Promotion Committee process. The ADUME may not occupy any of the advisory or assessment roles contained in the Educator Role Matrix.

Assistant Dean for Undergraduate Medical Education: The assistant dean for undergraduate medical education supports the associate dean for undergraduate medical education in coordinating the M.D. curriculum and assessment programs. He/she is available to assist students with academic planning. The assistant dean for UME is involved in all Promotion Committee processes and may not occupy any of the advisory or assessment roles contained in the Educator Role Matrix, with the exception of course director provided a grading committee is in place.

Assistant Dean for Medical Student Assessment (ADA): The ADA is a member of the VUSM administration. Her/his primary role is to identify and assist students with performance issues. One of the key roles of the assistant dean for assessment is to direct the Student Assistance Program (SAP). The goal of the SAP is to provide students with guidance in study skills, test-taking strategies, and general advice for academic success within a rigorous medical school curriculum. The ADA serves as an academic resource for students, meeting with individuals as indicated and coordinating tutoring in partnership with course directors. The ADA communicates with the Equal Opportunity, Affirmative Action, and Disability Services Department (EAD) in the event that a student requires accommodation. The ADA helps to coordinate Promotion Committee meetings by preparing the meeting agenda, assembling the academic data to be reviewed, attending all meetings, and reporting on student progress/concerns as needed, and following up with students as needed following meetings. The ADA has access to all academic records. The ADA may not occupy any of the advisory or assessment roles contained in the Educator Role Matrix, with the exception of course director provided a grading committee is in place.

College Mentor (CM): CMs are VUSM faculty members who manage the activities of and advising programs within the VUSM Colleges and Learning Communities. CMs serve assigned students as advisors in the areas of professional wellness and career counseling. CMs are involved with programming throughout the year in the school’s Student Wellness Program and Careers in Medicine Program. CMs also serve as teachers in the VUSM Learning Communities, focusing on content in medical humanities, metacognition, ethics, leadership, and policy. The CMs do not grade students in learning communities, but instead provide formative feedback. CMs may have teaching or supervisory roles with their college mentees in the context of other academic activities. However, role conflict management plans are created to ensure that they do not grade their mentees in those activities. CMs do not have access to student academic records (grades, etc.). A student may grant a CM access to his/her academic record and may revoke such permission at any time without negative consequences.

Portfolio Coach (PC): The PCs are VUSM faculty members who work with an assigned group of students throughout medical school. The PC role was created as part of Curriculum 2.0. Each member of an entering class is assigned an individual coach from the cohort of coaches appointed for their class. Students meet individually with their assigned PCs three times during the first year of medical school and at least twice during each subsequent year. Portfolio Coaches play a vital role in the Curriculum 2.0 assessment system. PCs have access to the academic records of only the students to whom they are assigned. They coach individual students in developing the skills for informed self-assessment and lifelong learning. They help students critically appraise data about their performance and translate those assessments into action plans for future learning. PCs have an active role in the assessment of assigned students’ progress through the curriculum.

Specialty Adviser (SA): As students approach their senior year of medical school, they are urged to choose an adviser from the specialty in which they will apply for residency. Specialty advisers are VUSM faculty members. Once established, this advisory relationship exists for the duration of the residency application and the National Residency Match processes. SAs provide academic and career counseling, strategic schedule planning, and interviewing advice specific to the specialty of choice. The primary goal of this relationship is to provide students with resources to most effectively obtain a successful residency match.

Degree Requirements—Other School of Medicine Degrees

Hearing and Speech Sciences

All candidates for the doctor of audiology (Au.D.), master of science in speech-language pathology (M.S.–S.L.P.), and master of education of the deaf (M.D.E.) degrees must have satisfactorily completed all residency, academic course, and clinical practicum requirements of their respective programs.

Doctor of Audiology

Degree Requirements

- The candidate for the Au.D. degree will generally spend twelve academic semesters at Vanderbilt and is expected to be enrolled in the School of Medicine during each fall, spring, or summer semester until completion of the degree.
- The normal time frame for completion of required course work for the doctor of audiology degree is four years. If an individual requires additional time due to unusual circumstances (e.g., remediation, personal leave of absence), the degree program may extend the maximum amount of time to complete the degree to five years.
- A minimum of 70 semester hours which includes didactic course work and 15 clinical practicum semester hours, concluding in a clinical externship, is required for the Au.D.
- All Au.D. students are expected to participate and make good progress in developing clinical skills through clinical practicum throughout their program. The first semester of clinical practicum will involve more observation and guidance than actual hands-on experience. A grade of Pass (P) or Fail (F) will be awarded for the first semester of practicum, primarily based on attendance, punctuality, professionalism, and active engagement in the learning process. In subsequent semesters, clinical supervisors award traditional letter grades (A, B, C, F) for clinical performance/learning, a grade which may be reduced for unexcused absences from either clinic or clinical case conference according to prevailing departmental guidelines. Student performance is reviewed annually, and a failure to appropriately develop clinical skills can result in probationary status which must be alleviated in order to continue in the program.
• Au.D. students must complete a fourth-year clinical externship which begins at the conclusion of the third year and must continue for a minimum of ten months.
• All Au.D. students must complete a capstone project. The doctoral capstone project comprises 6 credit hours taken in years 2 and 3.

Master of Science–Speech–Language Pathology
Degree Requirements
• The candidate for the M.S.–S.L.P. will spend at least five academic semesters of graduate study at Vanderbilt. Candidates for the M.S.–S.L.P. are expected to be enrolled in the School of Medicine during each fall, spring, or summer semester until completion of their degree requirements.

The normal time frame for completion of required course work for the master of science in speech-language pathology is two years. If an individual requires additional time due to unusual circumstances (e.g., remediation, personal leave of absence), the degree program may extend the maximum amount of time to complete the degree to three years.
• For M.S.–S.L.P. students with an undergraduate background in communication sciences and disorders: A minimum of 47 semester hours which includes formal, didactic course work and 10 to 11 clinical practicum credit hours is required for the master’s degree. For M.S.–S.L.P. students without an undergraduate background in communication sciences and disorders: A minimum of 54 semester credit hours which includes academic course work and 11 clinical practicum credit hours is required. Curriculum requirements, course content, and the number and distribution of credit hours are determined by the M.S.–S.L.P. program faculty.

Enrollment in clinical practicum is required during each semester of the student’s enrollment. Students must have 25 clock hours of clinical observation of clinical service provision conducted by or supervised by a person with the Certificate of Clinical Competence (CCC) in speech-language pathology from the American Speech-Language-Hearing Association. If this observation has not been met prior to enrollment in the M.S.–S.L.P. program, the student will complete the observation during the first semester before having an opportunity for direct patient contact. During the final semester of enrollment, the student will complete a 10-week full-time externship. Students are expected to have completed a minimum of 400 clinical clock hours prior to initiation of the externship.

Master of Education of the Deaf
Degree Requirements
• The candidate for the M.D.E. degree will spend at least three academic semesters of graduate study at Vanderbilt. Candidates for the M.D.E. degree are expected to be enrolled in the School of Medicine during each fall, spring, or summer semester until completion of the degree.
• The normal time frame for completion of required course work for the master of education of the deaf degree is one to two years, depending on student’s academic background upon entering the program. If an individual requires additional time due to unusual circumstances (e.g., remediation, personal leave of absence), the degree program may extend the maximum amount of time to complete the degree to three years.
• For M.D.E. students on the one-year track, a minimum of 29 semester hours of formal, didactic course work and 8 practicum semester hours is required. Students on the two-year track must complete a minimum of 50 semester hours of formal, didactic course work and 14 practicum semester hours for the M.D.E. degree and endorsement in Special Education Hearing in Pre-K-12. For students not seeking endorsement, a minimum of 44 semester hours of formal, didactic course work and 14 practicum semester hours are required.
• Maysemester internship/externship, designed to provide students with a unique opportunity for a three-week intensive practicum working with deaf and hard-of-hearing children in an auditory-oral setting, is required for graduation.
• Students must also complete a service obligation experience which provides them with the opportunity to gain an enhanced understanding of the challenges facing children with hearing loss and their families. Service obligations require a minimum of 100 hours during the first year of enrollment. At least half of the hours should involve direct child contact.

Master of Laboratory Investigation
Degree Requirements
• Candidates for the M.L.I. degree program are required to complete thirty-six semester credit hours. Because it is a program for working professionals, no more than twelve hours may be taken in an academic year, unless prior approval is granted by the program director. Entering students are required to complete the Responsible Conduct of Research course. Students may earn a maximum of 6 semester credit hours for Interdisciplinary Graduate Program (IGP) bioregulation modules. Each student selects a program track during his or her course of study.
  1) Research with Thesis Track: Students who choose this track develop a research project under the direction of a mentor and they must register for twelve semester hours of research. Note: Only research conducted outside of one’s job requirements will be considered for research credit. In lieu of a formal thesis, a graduate student may prepare a manuscript that is suitable for publication. Although it is highly desirable that the manuscript be published, publication of the manuscript is not a graduation requirement.
  2) Modified Research Track: Students who pursue this track are not required to write a thesis, but they are expected to present their research to a formal audience, which may include a conference gathering or poster presentation at Vanderbilt University. This track requires six semester hours of research and at least six hours of technique training modules. Note: Only research conducted outside of one’s job requirements will be considered for research credit.
  3) Techniques Track: Individuals who have a strong academic/research background may select a track that emphasizes strengthening their laboratory techniques. This track requires twelve semester hours of advanced technique modules.
• The normal time for completion of graduation requirements for the M.L.I. is three years. The maximum time for completion of degree requirements is five years.
• Students are required to assemble a committee of faculty members who will direct their research and selection of course work and technique modules throughout the degree program. A committee includes a minimum of three faculty members, one of whom will be the student’s mentor. Committee approval of satisfactory progress is required each semester.

Master of Public Health

Degree Requirements

• Candidates for the M.P.H. degree must complete 42 academic credit hours of course work over five academic terms. The 42 credit hours include didactic core and track-specific courses, as well as courses associated with the public health practicum and thesis.

The core courses cover content in epidemiology, biostatistics, social and behavioral sciences, environmental health, health services administration and policy, and public health ethics.

• In addition to the didactic course work, students must complete a public health practicum and thesis.

The public health practicum is a supervised practical field experience designed to provide students the opportunity to develop and apply the knowledge and skills acquired in the academic program in a public health agency or other environment in which a public health function is performed. Students work with the practicum director on an individual basis to identify, arrange, and complete a satisfactory field experience that fulfills the program’s practicum requirements.

The thesis is a substantive and original body of work that allows students to synthesize and integrate knowledge from their public health course work and practicum experiences, apply it to a particular topic area, and communicate their ideas and findings through a scholarly written product. The thesis represents the culmination of the student’s educational experience in the Vanderbilt M.P.H. program.

• Students receive regular track-specific academic advising, as well as guidance and mentorship for the practicum and thesis. Satisfactory completion of both the public health practicum and the thesis is required for all students.

M.P.H. Academic Policies

• Up to 15 academic credit hours of prior graduate-level course work from other schools at Vanderbilt or other accredited universities may be applied to the required 42 credit hours needed for the degree, conditional upon the approval of the Admission Committee and the relevant course directors.

• Auditing is not permitted in M.P.H. program courses. Students in the M.P.H. program may audit courses offered by other departments and programs with the approval of the course instructor.

• Students who receive a final course grade of C+ or lower may be required to retake the course or complete additional course requirements before progressing in the program.

• The normal time to complete the M.P.H degree is two years. The maximum time allowed to complete the degree is four years, unless there are unusual circumstances which merit an extension of this limit.

Master of Science in Applied Clinical Informatics

Degree Requirements

The M.S.A.C.I.’s goal is to develop clinical informaticians who will be capable of developing and leading innovative applications of information technology and information systems that address clinical, research, and public health priorities. The program will provide a 36-credit hour curriculum in 21 months, with a course work intensive first year followed by a second year devoted to a capstone project. The curriculum emphasizes a deep theoretical and practical understanding of the care process, informatics concepts, information technologies, computer science, and the changing social, organizational, and economic context in which health care is delivered. This understanding will be developed through course work, over 240 hours of practicum experience that uses real HIT data and systems and health care contexts, and a mentored capstone project. The degree program will provide physicians with didactic and experiential training in alignment with ACGME guidelines for Clinical Informatics fellowships.

The normal time frame for completion of required course work for the master of science in applied clinical informatics is 21 months. The maximum time frame for completion of this degree is three years.

Didactics

Expert faculty who comprise the largest biomedical informatics department in the U.S. will lead nine MSACI courses, which include the core content of the ABMS subspecialty certification:

• Introduction to Clinical Informatics
• Health Information Systems and Applications
• The Health System
• Clinical Information Systems
• Clinical Decision Support
• Clinical Workflow
• Data Standards
• Information System Lifecycle
• Management and Organizational Change

Practicum Experience

A practicum experience will have the following characteristics: Require a minimum of 240 clock hours effort to be completed during year 2 and can be satisfied in highly flexible ways, e.g., at VUMC, at home institution or other site (with M.S.A.C.I. program approval). The trainee must be embedded (i.e., assigned to participate as a member) in an interdisciplinary team that is addressing a significant clinical informatics challenge. This includes attending regular team meetings and participating in analysis of issues, planning, and implementation of recommendations from the team. The interdisciplinary teams must include physicians, nurses, other health care professionals, administrators, and information technology/system personnel, as appropriate.

Capstone Project

A required capstone project running throughout the fellowship will provide students with knowledge and skills required to design and conduct applied research studies to evaluate the efficacy of informatics applications in the clinical environment. Based on personal career objectives and informatics challenges that they identify in practica, the capstone project will have the flexibility to be completed as a cohort, a sub-cohort group, or individually, depending on its design and the needs of our learners. The project will begin in the first year and continue in the second year. Each student will have a project mentor from
among the DBMI faculty, as well as a practice mentor within his/her home department/organization.

**Master of Science in Clinical Investigation**

*Degree Requirements*

- Candidates for the M.S.C.I. must complete 35 semester credit hours of the core course work.
- Completion of a final project in the form of a submission ready, extramural grant or an original article for publication in a peer-reviewed journal is also required. Final projects are reviewed and approved by the Promotion Committee.
- Students who are unable to complete a grant or manuscript may submit a thesis. The thesis should include a brief introduction explaining why a grant or manuscript could not be submitted. No oral presentation is required. The thesis should include a brief statement of the student’s role in the work to be described in the research report and a 10-to-15-page report outlining the hypothesis tested, background and significance of the work, the experimental approach and methods, data analysis/sample size calculations, anticipated results and pitfalls, results to date, interpretation of results, discussion of results, and future plans.

**Professional Programs in Medical Physics**

**Professional Doctorate in Medical Physics**

*Degree Requirements*

- Candidates for the D.M.P. must complete a total of 92 semester credit hours. Of this total, 50 semester credit hours will be in didactic classroom and laboratory instruction, with an emphasis on either diagnostic imaging or radiotherapy physics.
- The normal time frame for completion of required course work for the doctorate in medical physics is four academic years. The maximum time for completion of this degree is no more than five years.
- Candidates will complete an independent study project for six semester credit hours.
- Students are required to complete 30 semester credit hours of professional clinical rotations. Clinical training will total a minimum of 24 months. Limited introductory clinical training called practicum (approximately three full-time equivalent months) will occur in year 2; students will receive 6 professional credit hours for the successful completion of the practicum.

**Master of Science in Medical Physics**

*Degree Requirements*

- Candidates for the M.S.M.P. must complete a total of 38 semester credit hours. Of this total, 32 semester credit hours will be in didactic classroom and laboratory instruction with an emphasis on either diagnostic imaging or radiotherapy physics.
- The normal time frame for completion of required course work for the master of science in medical physics degree is two academic years. The maximum time for completion of this degree is no more than three years.
- Students may choose a thesis or non-thesis option in either discipline.
- Students in the non-thesis option are required to complete 6 semester credit hours of professional clinical rotations or practicum. The practicum is specific to the areas of clinical diagnostic and nuclear medicine imaging or radiotherapy treatment planning and associated techniques. Students in the non-thesis option may choose to participate in a 1–2 semester credit hour independent study.
- Students in the thesis option must complete a master’s thesis by taking 6 semester credit hours of independent study.

**Academic Policies—Other School of Medicine Degrees**

**Registration**

*Academic Load and Credit Hours.* The academic load for full-time status in the fall and spring semesters is 8 or more hours. A student who wishes to carry more than 16 hours must secure authorization from the degree program director before registration. Three-quarter-time status is 6 to 7 hours; half-time status is 4 to 5 hours. The summer full-time load is 6 or more hours; three-quarter-time load is 5 hours, and half-time load is 3–4 hours. All full-time students must register each fall and spring semester with no breaks in registration to remain in good standing. Students enrolled at Vanderbilt University School of Medicine must complete required course work at VUSM or a VUSM affiliate institution, unless otherwise explicitly indicated.

Credit hours are semester hours (e.g., a three-hour course carries credit of 3 semester hours). One semester credit hour represents at least three hours of academic work per week, on average, for one semester. Academic work includes, but is not necessarily limited to, lectures, laboratory work, homework, research, class readings, independent study, internships, practica, studio work, recitals, practicing, rehearsing, and recitations. Some Vanderbilt courses may have requirements that exceed this definition.

*Changes in registration.* Changes to semester-long courses must be made within the change period (the first ten days of the term). A student may formally withdraw from a course after the end of the change period with the permission of the faculty member, and a grade of W will be given. After the mid-point of the semester, a student is not permitted to withdraw from the course except under certain circumstances. Failing the course is not considered one of the circumstances. Students should also be aware of financial ramifications of dropping a course after the change period. Some programs may allow additional change periods within the term.

*Auditing a course.* Auditing is allowed in some programs, but not all. Please see program-specific information in this catalog for more information about whether a specific program allows courses to be audited.

In programs where auditing is allowed, a request must be submitted to and approved by both the program director and course instructor. Only students registered for regular courses will be allowed to audit a course. Students who audit are expected to attend class regularly. Audits will be recorded on the student’s transcript. The number of courses that a student may audit during a given semester may be limited by
the program director. A grade of AW will be entered onto a transcript when a student withdraws from a course after the change period (the first ten days of the term).

Special students. Special students admitted as non-degree-seeking students may register for selected courses. Students seeking special student status must submit an application to the program offering the course. Approval of the instructor and the program administration is required to take the course. Special students must meet the same admission requirements as the program’s degree-seeking students. Registration for individual classes is contingent upon availability of space in the course.

Dual degree students. Students pursuing a dual degree will be required to designate a primary degree program during each registration period.

Grading and Promotion Policies

Grading. The grading scale will include the following:

- A+ = 4.0
- A = 4.0
- A- = 3.7
- B+ = 3.3
- B = 3.0
- B- = 2.7
- C+ = 2.3
- C = 2.0
- C- = 1.7 (no earned hours/quality hours and quality points only)
- F = No credit

Pass/Fail Grading: Some courses may be designated as pass/fail. The grades for these courses will not be calculated into the GPA unless the final grade is F. Degree-seeking students may not elect to take a graded course as pass/fail. Non-degree-seeking students may be allowed by a program to elect to take a course pass/fail.

Incomplete: The grade I (Incomplete) may be used at the discretion of the instructor in those cases in which the student is not able to complete course work in the normal time. An I that is not replaced by a letter grade within one year may be changed to an F at the discretion of the instructor. Otherwise, the I may become permanent and remain on the transcript as such.

A Grade of W: The grade of W is entered onto the transcript when a student withdraws from a course (or from the degree program) after the close of the change period (the first ten days of the term) but before the end of the term.

Grade Change Policy: A grade recorded in the University Registrar’s Office (on a transcript) may be changed only upon the written request of the instructor with the approval of the program director. Requests for grade changes may be submitted, by the program director, to the School of Medicine Office of Enrollment Services. This policy includes changing an I to a final grade.

Grade Grievance Procedure: Students should seek redress of a problem with a grade as soon as possible after receiving the grade and in no case later than four weeks after the grade is released. Students with a problem should confer directly with the course director. Every effort should be made to resolve the problem fairly and promptly at this level. If the student cannot resolve the problem through discussion with the course director, the student should formally request an appeal from the degree program director within two weeks of talking with the course director. If the course director is also the degree program director, appeal would be made by the student to the senior associate dean of health sciences education (SADHSE) or his/her designee.

In degree programs with tracks, the track director should be the first level of appeal after the course director, and if the student is not satisfied with the outcome of that appeal, the student should appeal to the program director. In any aforementioned instance, if resolution is not achieved by the degree program director the case will be referred to the SADHSE or his/her designee, who will make the final decision. At each level of review the course’s assessment practices will be reviewed and the individual student’s situation taken into account.

Transfer Credit: Only those courses for which a student has received a grade of B or its equivalent will be considered for incoming credit transfer. In general, no more than 6 credit hours earned from an accredited institution may be applied toward degree graduation requirements. Applicants will notify degree program directors, prior to admission, of their intent to petition for transfer credit. Transfer credit is approved at the discretion of the degree program director and then endorsed and processed by the director of student records for the School of Medicine. In some programs, students may petition for approval of additional credits. Credit will not be given for courses taken in the Vanderbilt University Division of Unclassified Studies.

Credit for Courses Taken as an Undergraduate: Students may not request credit for course work taken prior to beginning the degree program if the course credit was used to satisfy requirements of the previous degree. Students wishing to transfer in graduate-level credit for previously completed course work must make such a request prior to admission to the program (see Transfer Credit above).

Academic Progress and Promotion

School of Medicine degree program students are expected to progress academically through the program at a pace that ensures that students attain current and relevant professional knowledge, skills and aptitudes. Students are expected to maintain satisfactory academic progress at all times. Each program establishes the normal time and maximum time allowed to progress though the program and complete the degree (exclusive of approved leave(s) of absence). Since grades are a significant element in determination of satisfactory academic progress, it is the student’s responsibility to be aware of the degree program’s minimum satisfactory grade level for courses to be applied toward degree requirements. In addition, students are responsible for understanding experiential learning (clinical rotations, practica, etc.) requirements and minimum standards of performance required to maintain satisfactory academic performance. (See each program’s academic progress and degree requirements on pages 55 through 58)

Each student’s progress is evaluated at least annually by an academic progress review committee. Committee name, size and membership varies by program, but all operate under the supervision of the School of Medicine and the policies contained in this catalog. Committees are populated by faculty members well versed in the program’s degree requirements and in acceptable academic standards and performance for the program and its related profession.

Academic progress review committees review students’ progress and may make the following determinations at each scheduled meeting:

- Satisfactory progress (Good standing and promotion)
- Satisfactory progress with remediation (Good standing and promotion or contingency for promotion)
- Academic probation with remediation (Not in Good Standing—remediation required; promotion or contingency for promotion)
- Dismissal (after failing to successfully remediate)

Students are notified in writing of the committee’s determination if academic progress is not satisfactory. Degree programs’ student support and advisory systems work with committees to facilitate the best possible outcome for all students.

**Good Standing**

A cumulative grade point average of at least 3.0 is required for graduation. A semester average of at least 3.0 is required to remain in good academic standing. A student whose cumulative grade point average falls below 3.0 may be placed on probation for one semester. If at the end of the semester the grade point average is still below 3.0, the student may be dismissed from the program based on unsatisfactory academic performance. Students may withdraw in lieu of dismissal.

**Repeating a Course**

Students may be required to repeat a course after having received a grade below the level deemed acceptable for graduation credit by the degree program. In rare instances, in some programs, students may make a request of the program director to re-take a course if doing so would significantly benefit the student’s academic performance and progress. Both courses will be reflected on the transcript, but the second grade earned will be the one used in computing the student’s grade point average. Students should refer to their program handbook for more information about whether the option to retake courses is available in the program.

**Probation**

Students placed on probation are notified through a letter from the program director and/or the academic progress review committee that outlines the reasons for the probation; the requirements and recommendations for addressing deficiencies; the conditions for removal of probation, including an expected time frame; and actions that will be taken if conditions are not met. Students placed on probation for any reason will be required to complete a specific remediation plan that has been approved by the program director and the academic progress review committee. The remediation plan may include requirements placed on the student, such as regular meetings with advisors, elimination of extra-curricular activities that may be interfering with satisfactory academic progress, etc.

All students on probation will be reviewed by the degree program’s director and the academic progress review committee at least once each semester to determine whether satisfactory academic progress has been made. At that time the program’s director and the academic progress review committee may take the following actions:

1. Remove probation: Probation may be removed if students have satisfactorily addressed deficiencies, even if this is before the time frame originally designated by the program’s director and the academic progress review committee.
2. Continue probation: Progress is being made.
3. Recommend dismissal: Performance continues to be unsatisfactory.

Written notification is provided to the student regarding the outcome of this review.

Probation is considered an adverse action and may be reported in future graduation verifications and other requests for information.

**Appeal of Probation**

Students may ask the Senior Associate Dean for Health Sciences Education (SADHSE) for reconsideration of any decision for probation. The request must be made in writing within seven calendar days of receiving the decision from the program’s academic progress review committee. The student may meet with or present any additional information in writing to the SADHSE, who will review the information presented by the student, the degree program director, and the deliberations of the academic progress review committee. The SADHSE will make a determination to either uphold the decision, reverse the decision, or request that the academic progress review committee meet for reconsideration of additional information. The SADHSE will notify the degree program director and the academic progress review committee in writing of his or her decision. In the case of a reversal, the SADHSE may require that the student follow requirements and recommendations of the program director and the academic progress review committee for addressing deficiencies.

**Dismissal**

Dismissal for unsatisfactory academic progress will take place only after a student has been given a reasonable probationary period to address deficiencies. Most often, this reasonable period consists of one academic year.

A student may be dismissed at any time for a singular egregious behavior; involvement in a serious incident that is inconsistent with the expectations for students at VUSM; violation of Vanderbilt University or Vanderbilt University Medical Center policy; or demonstrating a pattern of unprofessional behavior. In such cases, the program director and the academic progress review committee consider the situation, including its severity, as quickly as possible and render a recommendation to the dean or the dean’s designee.

In cases where the academic progress review committee is involved, the student may meet with the program director prior to any academic progress review committee meeting to present an explanation, including any mitigating circumstances. The degree program director will present the student’s explanation, as well as any mitigating circumstances, to the academic progress review committee. Alternately, the student may elect to appear before the academic progress review committee in person or to submit in writing his or her explanation and any other information to be considered by the academic progress review committee. A student may also ask a non-committee faculty member to offer information on behalf of him or her at the meeting.

If a recommendation for dismissal is made by the academic progress review committee, the program director presents this recommendation to the dean or the dean’s designee, which is normally the senior associate dean for health sciences education (SADHSE). The dean or SADHSE takes into consideration any mitigating factors presented in writing by the student. The dean/SADHSE may reverse the recommendation if he or she disagrees with the decision. The dean or SADHSE shares his or her decision in writing (accepts dismissal or rejects dismissal) with the program’s academic progress review committee. If the dismissal decision is reversed, the academic
A student who decides to appeal a decision of dismissal must submit a written request to the academic review committee chair and the degree program director. This communication is presented to the student, in person whenever possible, by the degree program director. At that time, the degree program director presents the dismissal decision and the following options, in writing, to the student:

1. Voluntary withdrawal from VUSM. The decision to withdraw must be presented in writing by the student to the degree program director within seven (7) calendar days of the program director’s meeting with the student to inform him or her of the decision of dismissal.
2. Dismissal. If the student does not request to withdraw within this seven-(7)-calendar-day window, the dismissal will take effect on the eighth calendar day.
3. Appeal. Appeals must be made in writing to the SADHSE within seven (7) calendar days of the meeting between the degree program director and the student following the dismissal decision. An appeal automatically ends a student’s right to withdraw.
4. If the student is unwilling or unable to meet with the degree program director regarding the dismissal decision, the student will be informed of the decision in writing, and the window of time for the student to communicate his or her preference from the options listed above will run from the date of transmission of the written notice.

** Appeal of Dismissal **

A student who decides to appeal a decision of dismissal must submit a written request to the senior associate dean for health sciences education (SADHSE) within seven (7) calendar days of the dismissal decision. The dean or dean’s designee, usually the SADHSE, assembles and convenes a review panel consisting of at least five (5) members of the School of Medicine executive faculty (from among them a chair is designated) for a hearing within seven (7) calendar days of receipt of the written request from the student, unless the chair of the review panel determines that there are valid reasons to extend this time frame. In this review, the role of the dean or dean’s designee is purely administrative, and he or she has no decision-making authority in this context. In preparation for the review, the SADHSE will make available any relevant information/documentation for the panel’s review. The Assistant Dean for Health Sciences Education will provide the student information about the appeal process. The student may choose to be present or to make a presentation in writing. Information presented by the student may contain documentation from other students, faculty members, and/or other sources. In addition, the student may request that a faculty member be present and offer information to the review panel. The student may have other representatives at the review. The chair of the degree program’s academic review committee will attend the review to present the findings of that committee.

If the review panel upholds the decision, the student will be dismissed without the opportunity to withdraw. If the review panel reverses the decision, the review panel will refer the reversal decision to the degree program director, along with its written findings, for presentation to the academic progress review committee, which will consider whether probation is appropriate, and any requirements or conditions that would accompany probation. The review is conducted without the presence of attorneys for either party. However, either party may consult with its own counsel prior to such review or during a break in the proceedings. The decision of the review panel will be final for the school.

** Temporary Suspension **

The School of Medicine reserves the right, through the SADHSE (or designee), to temporarily suspend a student for conduct disrupting or negatively impacting the learning environment, pending the student’s referral to the degree program’s academic progress review committee. The SADHSE will notify the student in writing of the conditions of the temporary suspension. If the student is reinstated, the student will work with the degree program director to address any course requirements not completed during the suspension.

** Leave of Absence **

Students who wish to interrupt their study must request a leave of absence in writing from the program director. Some programs may require additional documentation. The program director will provide a decision regarding the request. A one-time leave of absence may be granted for a maximum of one year for students seeking a master’s degree. A leave of absence may be granted for one year for students seeking a doctoral degree, and on rare occasions a second leave of absence for a period of up to a year may be allowed for doctoral students.

Students taking a leave of absence are responsible for meeting with the program director prior to the leave in order to plan for their course work and timeline for successful degree completion following their return. Students who do not register for classes before the ending date of a leave of absence may be disenrolled and required to request reinstatement to the program. All programs have limits to the time within which all degree requirements must be completed, and it is the student’s responsibility to be aware of these limits.

** Withdrawal from the University **

Students who intend to withdraw from the university for any reason must inform the program director in writing. Lack of notification may result in additional academic or financial penalties beyond those usually incurred when timely notification is provided.

** Graduate Certificate Programs **

The School of Medicine offers graduate certificate programs to its students who wish to gain focused expertise in a specific area. Each program has its own admission and completion requirements. Students must submit an “Intent to Enroll” form to document their intention to pursue a certificate, as well as other documentation as needed. Permission of the degree program director and the certificate program director are required to pursue a certificate. Additional details on each program are provided below and at medschool.vanderbilt.edu.

** Biomedical Ethics **

This certificate is designed to enable students to graduate with a high level of competence in analyzing and resolving ethical issues that they will face in practice and equip them to provide
Global Health

The certificate promotes training opportunities in global health. Students in any Vanderbilt graduate or professional degree program who fulfill all requirements are granted a Global Health Certificate upon receipt of their graduate degrees.

Certificate Requirements. (12 credit hours total)

1. Core Course (choose at least one—each course is 3 credit hours)
   - Foundations of Global Health
   - Fundamentals of Global Health
   - Essential Skills in Global Health

2. Elective Courses—at least 9 credit hours in additional global health course work
   - These courses may be a combination of VIGH global health courses or other approved courses that have relevance to global health, including a Global Health ISC (3 hours), AE (3 hours), or research immersion (6 hours).
   - Students may individually tailor and/or design electives in consultation with faculty mentors. Practicum, thesis, research immersion, and individual learning courses that have relevance to global health may be approved for certificate credit.
   - A year-abroad global health experience such as a Fogarty, Fulbright-Fogarty, Medical Scholars, or Doris Duke international fellowship also counts toward elective credit hours. Typically, global health field experiences are abroad, though certain circumstances and interests may allow students to engage in global health work in Middle Tennessee.
   - All courses for this certificate must be taken for graduate credit and involve global health content.

3. To initiate this certificate, submit the VIGH Graduate Certificate in Global Health “Intent to Enroll” form, found at https://redcap.vanderbilt.edu/surveys/?s=KCHTLWPX8W. Note: Your academic adviser or program director will need to sign this form.

4. To complete and receive this certificate, submit the VIGH Certificate in Global Health application, found at https://redcap.vanderbilt.edu/surveys/?s=WDHY9YX9. This application should be submitted at least two months prior to graduation.

More information can be found on the VIGH website: http://globalhealth.vanderbilt.edu/education-and-training.

Lesbian, Gay, Bisexual, and Transgender (LGBT) Health

LGBTI patients experience disparities in access to and quality of care, leading to preventable, adverse health outcomes including elevated risk for specific chronic diseases and increased rates of suicide and depression. The Certificate in LGBT Health is designed to teach students how to address these disparities, improve the health of LGBTI patients, support education around LGBTI health, and foster research on the optimal ways to care for LGBTI patients and families.

The Certificate in LGBT Health comprises three elements:

1. Research Immersion in LGBT Health. Students will select a research topic within the realm of LGBT health. This may include selecting a topic within a clinical specialty, for example, adolescent medicine, infectious disease, psychiatry, or surgery. Projects may combine empirical and conceptual work with mentorship provided by designated mentors.

2. LGBTI Health in Inter-professional Practice or Sex, Sexuality, and Sexual Health Elective. Students choose from one of these two interdisciplinary courses focusing on sexual health in the general population and the specific health care needs of sexual and gender minorities. In addition to the basic sciences underlying the pathophysiology of health in these populations (e.g., HPV infection, HPA dysregulation with chronic stress), clinical specialties highlighted in the course include pediatrics and adolescent medicine, OB/GYN, psychiatry, and internal medicine with content threads from ethics, medico-legal health care, human development, and chronic care.

3. Capstone Project. Each student will complete a capstone project related to LGBT health. This may include development of patient education materials, providing a community or staff training, or implementation of a quality improvement project. The capstone is expected to enable students to demonstrate proficiency and acquired knowledge in the area of LGBT health.

Each element may be taken separately, but completion of the Certificate in LGBT Health requires successful completion of all three elements.

Neurodevelopmental Disabilities (NDD)

The Neurodevelopmental Disabilities (NDD) Certificate Program provides an opportunity for Vanderbilt medical students to receive substantial education and training in the field of autism spectrum disorder/neurodevelopmental disabilities ASD/NDD. As participants in the Vanderbilt Consortium
LEND* (VCL), accepted students will address the critical shortage of health professionals who are trained to provide culturally sensitive, patient- and family-centered, interprofessional care to children and youth with special health care needs, especially those with ASD/NDD.

The program provides an intensive (more than 300 hours), two-semester interprofessional training experience which includes:

- Rigorous weekly Core Curriculum in ASD/NDD, a monthly leadership seminar series, and a Care Navigation Practicum in which trainees assist patients and families in care navigation while learning about social determinants of health and community-based services.
- Clinical experiences in various interprofessional hospital-based, community-based, and public health clinics.
- Individual and group projects.
- A broad list of activities from which the trainees can tailor their experiences based on their professional goals and aspirations.

At the completion of this experience, the students will have the requisite knowledge, skills, and attitudes to assume leadership roles in the field of NDD and to provide interprofessional, patient- and family-centered, community-coordinated, culturally competent, and empirically-based services to individuals with ASD/NDD and their families.

Participants receive tuition assistance in the amount of $7,500. Successful completion of the NDD Certificate Program also fulfills components of the Foundations of Health Care Delivery and Learning Community graduation requirements.

*National LEND program website:
http://www.aucd.org/template/page.cfm?id=6

Vanderbilt LEND program website:
http://vkc.mc.vanderbilt.edu/vkc/lend/
Honors and Awards

Alpha Omega Alpha
A chapter of this medical honor society was established by charter in the School of Medicine in 1923. Not more than one-fourth of the students of the fourth-year class are eligible for membership, and no more than 17 percent (one-sixth of the graduating class) can be nominated per class.

The society has for its purpose the development of high standards of personal conduct and scholarship and the encouragement of medical research. Students are elected into membership on the basis of scholarship, character, and originality.

Gold Humanism Honor Society
A chapter of this honor society was founded in 2015 in an effort to recognize, support and promote the values of humanism and professionalism in medicine. The number of members eligible to be nominated and selected will be up to 15 percent of the medical school class. Students are elected into membership by showing that they are exemplars of integrity, excellence, compassion, altruism, respect, empathy, and service.

Founder’s Medal
The Founder’s Medal, signifying first honors, was endowed by Commodore Cornelius Vanderbilt as one of his gifts to the university. This medal is awarded to the student in the graduating class of the School of Medicine who, in the judgment of the faculty, has achieved the strongest record in the several areas of personal, professional, and academic performance in meeting the requirements for the doctor of medicine degree during four years of study at Vanderbilt.

Class Day Awards
AMERICAN ACADEMY OF NEUROLOGY MEDICAL STUDENT PRIZE FOR EXCELLENCE IN NEUROLOGY. This award is to recognize medical students for excellence in clinical neurology.

BEAUCHAMP SCHOLARSHIP. Endowed and awarded to the student showing the greatest progress in the field of psychiatry.

LONNIE S. BURNETT AWARD IN OBSTETRICS AND GYNECOLOGY. This award is given to the student demonstrating superior performance and who exemplifies the qualities of dedication, leadership, compassion, and integrity in the field of Obstetrics and Gynecology.

DIXON N. BURNS AWARD IN MEDICAL ETHICS. This is an award given by the Center for Biomedical Ethics to the graduating medical student who has, through a written essay, demonstrated unusual ability in identifying and analyzing ethical issues presented in either clinical or research contexts.

THE GEORGE AND BARBARA BURRUS MEDICAL MISSIONS AWARD. This award is presented to a student who has demonstrated exceptional interest and participation in providing medical care to the poor during medical school either locally or abroad.

THE GEOFFREY DAVID CHAZEN AWARD. This award for innovation in medical education was established to recognize a student, resident, fellow, or faculty member who has made special contributions to the educational programs of the Vanderbilt University School of Medicine through the development and implementation of effective innovation in educational approach.

AMOS CHRISTIE AWARD. This award recognizes the student in the graduating class who has demonstrated the outstanding qualities of scholarship and humanity embodied in the ideal pediatrician.

JOHN G. CONIGLIO PRIZE IN BIOCHEMISTRY. This award presented to a medical student who has distinguished him/herself in Biochemistry. Both accomplishments in biomedical research and performance in Biochemistry courses are considered in evaluating candidates for this award. This award was established by friends of Professor Coniglio on the occasion of his retirement to honor his many contributions to medical education at Vanderbilt.

OSCAR B. CROFFORD AWARD FOR DIABETES/ENDOCRINE RESEARCH. This award is presented by the Division of Diabetes, Endocrinology, and Metabolism and the Vanderbilt Diabetes Center to the graduating medical student who has performed outstanding research in the area of diabetes and endocrinology. This award was established to honor Dr. Oscar B. Crofford for his contributions to the diabetes research at Vanderbilt and throughout the world.

DEAN’S AWARD. Presented to medical students distinguished by outstanding service to the School of Medicine and the community.

THE DEAN’S AWARD FOR RESEARCH. This award is presented to the graduating medical student who best exemplifies the attributes that lead to success in basic science or clinical research, namely creativity, dedication, productivity/multiple publications and careful diligence.

EXCELLENCE IN EMERGENCY MEDICINE. The award for excellence in emergency medicine is given on behalf of the Society for Academic Emergency Medicine. This award recognizes a medical student who demonstrated outstanding ability and commitment to the specialty of emergency medicine at Vanderbilt University Medical Center.

EXCELLENCE IN INFECTIOUS DISEASES. This award is presented by the Divisions of Infectious Diseases in the Departments of Medicine and Pediatrics to the student who has demonstrated outstanding aptitude and performance in clinical and investigative efforts in infectious diseases or microbiology.

GERALD FENICHEL AWARD IN NEUROLOGY. Dr. Gerald Fenichel, professor of neurology and pediatrics, founded the Department of Neurology at Vanderbilt University Medical Center and served as chairman from 1969 to 2001. As one of the founders of the Child Neurology Society, his contributions to the fields of neurology and child neurology are immeasurable. This award is presented to a graduating medical student entering neurology or child neurology who has demonstrated outstanding aptitude for clinical neurology and a devotion to patient care.

DAVID R. FREEDY MEMORIAL AWARD. This award was established to honor the memory of David Richard Freedy, a member of the Class of 1993. It is given to the student whose character, integrity, and courage provide inspiration to others and who has been dedicated to improving and promoting community life.

J. DONALD M. GASS AWARD IN OPHTHALMOLOGY. This award is established in honor of Dr. J. Donald M. Gass, a graduate of Vanderbilt University School of Medicine, Class of 1957 and a renowned medical retina specialist. This award is given to a student who demonstrates excellence in ophthalmic education and research.

GLASGOW–RUBIN CERTIFICATE OF COMMENDATION. This certificate is presented in recognition of women medical students who graduate as honor graduates, with special recognition to any female who is the top graduate. It serves to reaffirm the American Medical Women’s Association’s commitment to encouraging their continuing achievement.

JAMES T. GWATHMEY PRIZE IN ANESTHESIOLOGY. This award is presented to the graduating medical student who most clearly demonstrates...
the potential for excellence in academic anesthesiology. It is named after Dr. James Tayloe Gwathmey, a former Vanderbilt medical student who graduated in 1899 and went on to lead the creation of a new medical specialty called anesthesiology.

PAULA C. HOOS AWARD. The first-year class presents this award in recognition of teaching excellence in the anatomy laboratory and to express appreciation for the assistance of members of the graduating class.

HOSPITAL AWARD OF EXCELLENCE. This award recognizes the fourth year medical student by the chief residents of the services as having contributed most toward excellent patient care by demonstrating sensitivity, compassion, and concern in clinical responsibilities to patients of Vanderbilt Medical Center.

RICHARD B. JOHNSTON JR. AWARD. This award is presented to a graduating student entering pediatrics who has demonstrated excellence in academic scholarship and an extraordinary commitment to clinical medicine exemplifying the highest professional standards of the physician-scientist.

RUDOLPH H. KAMPMEIER PRIZE IN MEDICINE. The Kampmeier Prize is presented by the Department of Medicine to the graduate who, in the judgment of the faculty, best combines high academic achievement with clinical excellence, original scholarship or research, and demonstrated potential for an academic career.

THE KAUFMAN PRIZE IN MEDICINE. This award honoring J. Kenneth Kaufman, M.D. ’39, is presented to a graduating medical student who has demonstrated qualities of humaneness, dedication, and unselfish service in the study of medicine and will apply these qualities in medical practice.

LAURA KNOX HUMANITARIAN AWARD. This award recognizes a graduating student in the Department of Hearing and Speech Sciences who has demonstrated a history of outstanding humanitarian endeavor throughout the degree program.

RUSSELL J. LOVE HONORS IN SPEECH-LANGUAGE PATHOLOGY. Given by the faculty in the Department of Hearing and Speech Sciences for outstanding clinical and academic achievement in speech-language pathology.

THE TOM NESBITT AWARD. This award is presented by the Nashville Academy of Medicine to honor the outstanding service of Tom Nesbitt, M.D., a member of the academy and the 133rd president of the American Medical Association. This award is presented to the graduating medical student who demonstrates exemplary character and leadership and has an understanding of and appreciation for organized medicine.

DAVID N. ORTH AWARD IN ENDOCRINOLOGY. This award is presented by the Division of Diabetes, Endocrinology, and Metabolism and the Endocrine Society, the largest professional association devoted to all aspects of endocrinology, to a graduating medical student who has demonstrated outstanding performance in clinical or research endocrinology. The award honors Dr. David N. Orth for his contributions to and leadership in endocrinology. He served as director of Vanderbilt’s Endocrinology Division and as president of the Endocrine Society.

THE ORTHOPAEDIC SURGERY CLERKSHIP AWARD. This award is presented by the Department of Orthopaedic Surgery to the student who has excelled in both the third and fourth year orthopaedic clerkships, and who has demonstrated outstanding potential in the field of orthopaedic surgery.

CANBY ROBINSON SOCIETY AWARD. With nominations generated from the fourth year class, this award is presented to a member of the graduating class who possesses those intangible qualities of common sense, knowledge, thoughtfulness, personal warmth, gentleness and confidence which combine to make the “Ideal Doctor”...the person fellow classmates would most like to have as their personal physician.

ROENTGEN AWARD. This award is given to a graduating medical student who has made important contributions in one of the radiological sciences during four years of study. Named for Wilhelm Conrad Roentgen, a pioneer in diagnostic radiology, the award recognizes discoveries in either clinical or research areas.

JAY W. SANDERS HONORS IN AUDIOLOGY AWARD. Given by the faculty in the Department of Hearing and Speech Sciences for outstanding academic scholarship and an extraordinary commitment to clinical or research areas.

THE SCHOOL OF MEDICINE AWARD OF DISTINCTION. This award is presented to the student who has demonstrated outstanding leadership abilities in service to the School of Medicine.

THE H. WILLIAM SCOTT JR. PRIZE IN SURGERY. This award is presented to the graduating medical student who exemplifies the qualities of leadership, performance, and character reflecting the ideal surgeon.

JOHN L. SHAPIRO AWARD FOR EXCELLENCE IN PATHOLOGY. This award, given upon action of the Department of Pathology, recognizes outstanding student performance in pathology. It is given annually or otherwise depending upon action by the department and honors the memory of Dr. John L. Shapiro, who was Professor and Chairman of the Department of Pathology from 1956 to 1971. Dr. Shapiro remained an active participant in a variety of university and community activities, until his death on July 15, 1983.

MILDRED T. STAHLMAN AWARD. This award honoring the pioneering spirit and achievements of Vanderbilt pediatrician Mildred Stahlman is presented to the graduating student entering pediatrics whose performance exemplifies the highest standards of leadership, professionalism, and commitment to improving the lives of children.

TENNESSEE ACADEMY OF FAMILY PHYSICIANS OUTSTANDING STUDENT IN FAMILY MEDICINE AWARD. This award is presented in recognition of dedication to the high ideals of family medicine.

THE LEONARD TOW HUMANISM IN MEDICINE AWARD. PRESENTED BY THE ARNOLD P. GOLD FOUNDATION. This award is given to a graduating student and a faculty member who demonstrate compassion and empathy in the delivery of health care, and who engender trust and confidence in both their patients and colleagues while adhering to professional ethical standards.

STEN H. VERMUND AWARD IN GLOBAL HEALTH. This award recognizes the graduating medical student who has most demonstrated a strong commitment to improving the health of the people of or from a low or middle-income country through distinguished scholarship, education, and/or contributions to the improvement of clinical care. The award was established in 2017 to honor Dr. Sten H. Vermund, who was the founding director of the Vanderbilt Institute for Global Health.

THE ALBERT WEINSTEIN PRIZE IN MEDICINE. The Weinstein Prize in Medicine is awarded to a student who has demonstrated high academic achievement, superior clinical competence, and the qualities of dedication and professionalism that characterize a good physician.

DAVID L. ZEALEAR PH.D. OTOLARYNGOLOGY SCHOLAR–INITIATIVE AWARD. This award is presented to a medical student who excels beyond clinical competence and who has become distinguished for outstanding effort towards the academic mission of otolaryngology—research, teaching, and/or outreach.
Financial Information

Financial Information for Medical Students

Tuition for the academic year 2017/2018 is $53,213. The annual expense of a first-year student in the School of Medicine is estimated to be $86,823.

Tuition and fees are set annually by the Board of Trust and are subject to review and change without further notice.

2017/2018

The following fees are included with the cost of tuition: Professional liability insurance, student long-term disability insurance, student health service, and verification.

- Application fee (to accompany secondary application) $ 50
- Student activities and recreation fee 533
- Student health insurance 3,253
- Transcript fee (one time only) 100

Payment of Tuition and Fees

All regularly enrolled medical students must pay the full tuition each year. There will be no exception to this requirement. Graduate students who enroll in courses in the medical curriculum for credit toward an academic degree and who later become candidates for the doctor of medicine degree may be required to pay the full tuition as indicated above. One half of tuition, fees, and other university charges are due and payable by 31 August. The second half of tuition, fees, and other university charges are due and payable by 31 January. Additional information can be found at vanderbilt.edu/stuaccts.

Refund of Tuition

Students who withdraw officially or who are dismissed from the university for any reason after the beginning of a term may be entitled to a partial refund in accordance with the schedule shown below. No refund will be made after the tenth week in any term.

<table>
<thead>
<tr>
<th>Withdrawal prior to the end of</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st full week</td>
<td>100%</td>
</tr>
<tr>
<td>2nd full week</td>
<td>90%</td>
</tr>
<tr>
<td>3rd full week</td>
<td>85%</td>
</tr>
<tr>
<td>4th full week</td>
<td>80%</td>
</tr>
<tr>
<td>5th full week</td>
<td>75%</td>
</tr>
<tr>
<td>6th full week</td>
<td>65%</td>
</tr>
<tr>
<td>7th full week</td>
<td>60%</td>
</tr>
<tr>
<td>8th full week</td>
<td>50%</td>
</tr>
<tr>
<td>9th full week</td>
<td>45%</td>
</tr>
<tr>
<td>10th full week</td>
<td>40%</td>
</tr>
</tbody>
</table>

No refund after the 10th full week.

Late Payment of Fees

Charges not paid by 31 August will be automatically deferred, and the student’s account will be assessed a monthly late payment fee at the following rate: $1.50 on each $100 that remains unpaid after 31 August ($5 minimum). An additional monthly late payment fee will be assessed unless payment is received in full on or before the end of each month, and late payment fees will continue for each month thereafter based on the outstanding balance unpaid as of the end of each month. All amounts deferred are due not later than 1 November for fall semester and 1 April for spring semester. Graduating students are not allowed to defer charges that are billed in advance for the final semester.

Financial Clearance

Students may not be allowed to register for any term if they have outstanding unpaid balances for any previous term. No transcript, official or unofficial, will be issued for a student who has an outstanding balance until the account has been paid. Diplomas of graduating students may be withheld until all bills are paid.

International students must provide documentation of having funds sufficient to meet all tuition, mandatory fees, and living expenses for the anticipated period of enrollment before a visa will be issued. Information will be provided by the university Office of International Student and Scholar Services.

Activities and Recreation Fees

The required student activities and recreation fees entitle students to use the facilities of Sarratt Student Center and the Student Recreation Center. The fees also cover admission to certain social and cultural events and subscriptions to certain campus publications. Specific information on these fees is published annually in the Vanderbilt University Student Handbook. By payment of an additional fee, students and their spouses may use their identification cards for admission to athletic events.

Professional Liability Insurance

Students will be automatically covered with professional liability insurance, required of all enrolled medical students, at the time of registration. Details of the policy are available at the university student insurance office, and students are encouraged to familiarize themselves with these details and with their responsibilities in this regard.

Students are covered whether they are at the Vanderbilt-affiliated hospitals (Vanderbilt University Medical Center, Nashville Veterans Administration Hospital, St. Thomas Hospital, or Baptist Hospital) or elsewhere as a “visiting student,” providing that (1) the clerkship or other educational experience has prior approval from the School of Medicine as course work for credit, and (2) the activities within this experience are consonant with the student’s level of training and experience and are performed under the supervision of appropriate faculty and/or staff.

Disability Insurance

Students will be automatically covered with long-term disability insurance, required of all enrolled medical students, at the time of registration. Details of the policy can be found at https://medschool.vanderbilt.edu/financial-services/insurance.

Student Health Insurance

All degree-seeking students registered for 4 or more hours at Vanderbilt are required to have adequate hospitalization insurance coverage. The university offers a sickness and accident insurance plan that is designed to provide hospital,
surgical, and major medical benefits. A brochure explaining the limits, exclusions, and benefits of insurance coverage is available at www.gallagherstudent.com. Additional information is also available at vanderbilt.edu/stuacct/g_health.html.

**Student Health Service Fee**

The required student health service fee covers required immunizations and health screening tests.

**Verification Fee**

The required verification fee covers all verification processes as required, including criminal background checks and drug screens.

**Transcript Fee**

All new students entering Vanderbilt for the first time are charged a one-time transcript fee for official university transcripts.

**Financial Assistance**

Education leading to the doctor of medicine degree requires a careful consideration of financial commitment by prospective students and their families. Financial planning is an important part of the student’s preparation for medical school.

Scholarships awarded on the basis of merit and need are available through Vanderbilt. Financial aid from school sources must be considered a supplement to governmental and other sources, rather than the primary source of funds necessary to attend medical school. Institutional financial aid is not adequate to meet students’ demonstrated need, but approved educational expenses are met with funds from a combination of sources. Government funds that furnish significant loans to medical students are the Federal Direct Unsubsidized Loan and the Federal Direct Graduate PLUS loans. Private and institutional loans are also available to international students.

Additional information and applications for financial aid are online at https://medschool.vanderbilt.edu/financial-services/. Applicants desiring more specific information about financial aid resources should contact the medical school Office of Student Financial Services.

The following are School of Medicine institutional scholarships and loans available to assist students.

**Scholarships**

THE JAMES T. AND OLIVA R. ALLEN SCHOLARSHIP FUND was established in 1993 by Dr. James T. Allen, M.D. 1942, to provide financial support based on need for deserving students at the School of Medicine.

THE ALPHA KAPPA KAPPA SCHOLARSHIP FUND was established in 1969 by the Alumni Board of Directors of the Alpha Kappa Kappa fraternity to provide financial support for individual medical student needs, primarily through provision of funds to help meet tuition cost.

THE LUCILE R. ANDERSON SCHOLARSHIP FUND was established in 1991 by Dr. Lucile Russell Anderson, M.D. 1933, to provide financial support for deserving students at the School of Medicine.

THE SUE AND NELSON ANDREWS SCHOLARSHIP was established in 2001 by Nelson Andrews, B.A. 1950, and Sue Adams Andrews, B.A. 1951, to provide financial support based on need for students at the School of Medicine.

THE BAKER-LEONARD SCHOLARSHIP FUND was established in 2002 by Quentin B. Leonard to provide financial support for deserving graduate students at the School of Medicine.

THE SOJA PARK BENNETT M.D. SCHOLARSHIP was established in 2015 by Soja Park Bennett, M.D. 1968, to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE BRUCE B. DAN M.D. AND EUGENE AND MARGE BESPALOW SCHOLARSHIP FUND was established in 1985 by Bruce Dan, M.D. 1974, to provide financial support based on need for deserving students at the School of Medicine.

THE THOMAS M. BLAKE FUND was established by Thomas M. Blake, M.D. 1944, to provide financial support based on merit to worthy students at the School of Medicine.

THE DR. DANIEL B. BLAKEMORE FUND was established in 1987 through the bequest of Ms. Neil J. Blakemore to provide financial support based on need for deserving students at the School of Medicine.

THE POPPY PICKERING AND RICHARD D. BUCHANAN SCHOLARSHIP was established in 2011 by Poppy Pickering Buchanan, B.S.N. 1961, and Richard D. Buchanan, B.A. 1957, M.D. 1961, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE BURRUS MEDICAL SCHOOL SCHOLARSHIP FUND was established in 1978 by George R. Burrus, B.A. 1952, M.D. 1955, Roger B. Burrus, B.A. 1950, M.D. 1957, Dr. William C. Burrus, former Vanderbilt student, and Swan B. Burrus, B.A. 1951, M.D. 1954, to provide financial support based on need for deserving students enrolled at the School of Medicine.

THE GREER BUSBEE III SCHOLARSHIP was established in 1999 by Dr. and Mrs. Brandon Busbee to provide financial support based on need to deserving students at the School of Medicine.

THE CARLO-LEONARD SCHOLARSHIP was established in 2014 by Eugenia and Waldemar A. Carlo to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE THOMAS C. AND PAULINE C. BUTLER SCHOLARSHIP FUND was established in 1937 by Thomas Cullom Butler, B.A. 1930, M.D. 1934, to provide financial support based on need for deserving students at the School of Medicine.

THE CARELL FAMILY SCHOLARSHIP was established in 2012 by the children of James W. Carell to provide annual financial support for deserving students at the School of Medicine.

THE WILLIAM ROBERT CATE M.D. SCHOLARSHIP was established in his memory in 1996 by Dr. Robert D. Collins, Sr., and other family members, friends and colleagues to provide financial support for students at the School of Medicine.

THE JOHN E. CHAPMAN M.D. ENDOWED SCHOLARSHIP was established in 2001 by friends, colleagues and medical alumni to provide full- and partial-tuition financial support based on need and merit to students at the School of Medicine.

THE JOHN E. AND JUDY JEAN CHAPMAN SCHOLARSHIP was established in 2004 through the estate of Grace McVeigh, B.A. 1925, to provide financial support based on need for deserving students at the School of Medicine.

THE ALICE DREW CHENOWETH SCHOLARSHIP FUND was established in 1986 by Alice D. Chenoweth, M.D. 1932, to provide financial support based on need for deserving students at the School of Medicine.

THE JOHN E. CHAPMAN M.D. ENDOWED SCHOLARSHIP was established in 2001 by friends, colleagues and medical alumni to provide full- and partial-tuition financial support based on need and merit to students at the School of Medicine.

THE JOHN E. AND JUDY JEAN CHAPMAN SCHOLARSHIP was established in 2004 through the estate of Grace McVeigh, B.A. 1925, to provide financial support based on need for deserving students at the School of Medicine.

THE SOJA PARK BENNETT M.D. SCHOLARSHIP was established in 2015 by Soja Park Bennett, M.D. 1968, to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE BRUCE B. DAN M.D. AND EUGENE AND MARGE BESPALOW SCHOLARSHIP FUND was established in 1985 by Bruce Dan, M.D. 1974, to provide financial support based on need for deserving students at the School of Medicine.

THE THOMAS M. BLAKE FUND was established by Thomas M. Blake, M.D. 1944, to provide financial support based on merit to worthy students at the School of Medicine.

THE DR. DANIEL B. BLAKEMORE FUND was established in 1987 through the bequest of Ms. Neil J. Blakemore to provide financial support based on need for deserving students at the School of Medicine.

THE POPPY PICKERING AND RICHARD D. BUCHANAN SCHOLARSHIP was established in 2011 by Poppy Pickering Buchanan, B.S.N. 1961, and Richard D. Buchanan, B.A. 1957, M.D. 1961, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE BURRUS MEDICAL SCHOOL SCHOLARSHIP FUND was established in 1978 by George R. Burrus, B.A. 1952, M.D. 1955, Roger B. Burrus, B.A. 1950, M.D. 1957, Dr. William C. Burrus, former Vanderbilt student, and Swan B. Burrus, B.A. 1951, M.D. 1954, to provide financial support based on need for deserving students enrolled at the School of Medicine.

THE GREER BUSBEE III SCHOLARSHIP was established in 1999 by Dr. and Mrs. Brandon Busbee to provide financial support based on need to deserving students at the School of Medicine.

THE CARLO-LEONARD SCHOLARSHIP was established in 2014 by Eugenia and Waldemar A. Carlo to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE THOMAS C. AND PAULINE C. BUTLER SCHOLARSHIP FUND was established in 1937 by Thomas Cullom Butler, B.A. 1930, M.D. 1934, to provide financial support based on need for deserving students at the School of Medicine.

THE CARELL FAMILY SCHOLARSHIP was established in 2012 by the children of James W. Carell to provide annual financial support for deserving students at the School of Medicine.

THE WILLIAM ROBERT CATE M.D. SCHOLARSHIP was established in his memory in 1996 by Dr. Robert D. Collins, Sr., and other family members, friends and colleagues to provide financial support for students at the School of Medicine.

THE JOHN E. CHAPMAN M.D. ENDOWED SCHOLARSHIP was established in 2001 by friends, colleagues and medical alumni to provide full- and partial-tuition financial support based on need and merit to students at the School of Medicine.

THE JOHN E. AND JUDY JEAN CHAPMAN SCHOLARSHIP was established in 2004 through the estate of Grace McVeigh, B.A. 1925, to provide financial support based on need for deserving students at the School of Medicine.

THE ALICE DREW CHENOWETH SCHOLARSHIP FUND was established in 1986 by Alice D. Chenoweth, M.D. 1932, to provide financial support based on need for deserving students at the School of Medicine.

THE 1943 SCHOOL OF MEDICINE CLASS SCHOLARSHIP DECEMBER FUND was established in 1992 by multiple donors in the School of Medicine Class of 1943, December, to provide financial support based on need for deserving students at the School of Medicine.
THE SCHOOL OF MEDICINE CLASS SCHOLARSHIP MARCH FUND was established in 1992 by multiple donors in the School of Medicine Class of 1943, March, to provide financial support based on need for deserving students at the School of Medicine.

THE 1946 SCHOOL OF MEDICINE CLASS SCHOLARSHIP FUND was established in 1996 by multiple donors to provide financial support for students at the School of Medicine.

THE CLASS OF 1947 SCHOLARSHIP was established in 1988 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.

THE 1948 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 1998 by multiple donors to provide financial support for students at the School of Medicine.

THE 1953 SCHOOL OF MEDICINE CLASS SCHOLARSHIP FUND was established in 2010 by multiple donors to provide financial support based on need for deserving medical students at the School of Medicine.

THE 1962 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors to provide financial support for deserving students at the School of Medicine.

THE 1963 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1963 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1964 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 1989 by multiple donors to provide financial support for students at the School of Medicine.

THE 1965 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2013 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1966 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 by multiple donors from the School of Medicine Class of 1966 to provide financial support based on need or merit to deserving students at the School of Medicine.

THE 1967 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1968 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2013 through the bequest of Elise Moss Need, B.A. 1963, M.D. 1968, to provide financial support for students at the School of Medicine.

THE 1969 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2013 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1971 SCHOOL OF MEDICINE CLASS SCHOLARSHIP FUND was established in 2012 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1972 SCHOOL OF MEDICINE CLASS SCHOLARSHIP FUND was established in 2013 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1974 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2014 by various donors to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE 1975 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2010 by various donors to provide financial support based on need for deserving students at the School of Medicine.

THE 1976 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1977 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1977 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1978 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2007 by multiple donors from the Class of 1978 to provide financial support based on need for deserving students at the School of Medicine.

THE 1979 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2010 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.

THE 1981 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1981 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1982 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1984 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2014 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1985 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 by Rachel Lenox Mace, M.D. 1986, and Gerald F. Mace, J.D. 1985, to provide financial support based on need for deserving students at the School of Medicine.

THE 1986 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1987 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1987 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1988 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2008 by multiple donors from the Class of 1988 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1989 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2010 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.

THE 1990 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2010 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.

THE 1991 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by various donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1992 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1992 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE DAVID FREEDY 1993 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 1992 by multiple donors to provide financial support based on merit for deserving students at the School of Medicine.

THE 1994 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2013 by multiple donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1995 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1996 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1996 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 1997 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 1997 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 2001 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2012 by multiple donors from the Class of 2001 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 2002 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 to provide financial support based on need or merit for deserving students at the School of Medicine.

THE 2006 SCHOOL OF MEDICINE CLASS SCHOLARSHIP was established in 2011 to provide financial support based on need or merit for deserving students at the School of Medicine.
THE ROBERT D. COLLINS M.D. SCHOLARSHIP FUND was established in 1996 by multiple donors to provide financial support for students at the School of Medicine.

THE COMMONWEALTH FUND SCHOLARSHIP ENDOWMENT was established by the Commonwealth Fund to provide financial support based on need for deserving students at the School of Medicine.

THE MARVIN B. AND MILDRED G. CORLETTE SCHOLARSHIP was established in 2003 by Marvin B. Corlette, B.A. 1930, M.D. 1933, to provide financial support for students at the School of Medicine.

THE LOUISE WILLIAMS COUCH MEMORIAL SCHOLARSHIP was established in 1962 by Dr. Orrie A. Couch to provide financial support for students at the School of Medicine.

THE DEBORAH AND C. A. CRAIG II MEDICAL SCHOLARSHIP FUND was established in 1992 by C. A. Craig II, B.A. 1951, and his wife, Deborah Wallace Craig, B.S. 1969, to provide financial support for talented and deserving students pursuing an M.D. degree at the School of Medicine.

THE JACK DAVIES SCHOLARSHIP FUND was established in 1991 by multiple donors to provide financial support for medical students at the School of Medicine.

THE ANNETTE SCHaffer ESKind SCHOLARSHIP was established in 2011 by Annette Schaffer EsKind to provide financial support based on need or merit for students at the School of Medicine.

THE HERBERT AND FLORENCE ESKind MEMORIAL SCHOLARSHIP was established in July 1971 by Mrs. Herbert EsKind, A. 1928, and family to provide financial support based on need for deserving students at the School of Medicine.

THE ROBERT SADLER-WILLIAM EWERS SCHOLARSHIP FUND was established in 1987 by Mr. and Mrs. W. Fred DeLay to provide financial support for worthy students at the School of Medicine.

THE J. F. FOX MEDICAL SCHOOL SCHOLARSHIP FUND was established in 1967 through the estate of Mrs. Haille Fox to provide financial support based on need and merit for deserving students at the School of Medicine.

THE JOE C. DAVIS SCHOLARSHIP was established in 1986 by an anonymous donor to provide financial support based on need and merit for students at the School of Medicine.

THE ANNETTE SCHaffer ESKind SCHOLARSHIP was established in 2011 by Annette Schaffer EsKind to provide financial support based on need or merit for deserving students at the School of Medicine.

THE THOMAS F. FRIST, SR., M.D. SCHOLARSHIP was established in 1967 through the estate of Mrs. Hallie Fox to provide financial support based on need or merit for deserving students at the School of Medicine.

THE D. G. GILL SCHOLARSHIP FUND was established in 1982 by Gordon Nelson Gill, B.A. 1960, M.D. 1963, Richard Hamilton Gill, B.A. 1962, and Charles Leigh Gill to provide financial support based on need for deserving students at the School of Medicine.

THE FRED GOLdNER M.D. SCHOLARSHIP quasi account was established in 2013 to receive matching gifts from the Mary K. Parr Scholarship Matching Gift Program that was established to inspire donors to make a gift for scholarships at the School of Medicine.

THE DRS. FRANK LUTON AND CLIFTON GREER SCHOLARSHIP was established in 1995 through the estate of Clifton Greer, M.D. 1951, to provide financial support based on need for students at the School of Medicine.

THE HARRY J. GUFFEE SCHOLARSHIP FUND was established in 1991 by the Williamson Medical Center to provide financial support for deserving students at the School of Medicine.

THE SCOTT AND TRACIE HAMILTON SCHOLARSHIP was established in 2012 by the Pioneer Fund to provide financial support based on need for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE GLENN AND VIRGINIA HAMMONDS SCHOLARSHIP was established in 1984 by Dr. R. Glenn Hammonds, B.A. 1942, M.D. 1944, to provide financial scholarship support for deserving students at the School of Medicine.

THE FRANK M. HANDLEY MEDICAL SCHOOL SCHOLARSHIP was established in 1999 through the estate of Frank M. HANDLEY, J.D. 1928, to provide financial support for students at the School of Medicine.

THE EMMY AND H. CAMPBELL HAYNIE SCHOLARSHIP was established in 2002 through a bequest from Harold Campbell Haynie, B.A. 1934, to provide financial support for deserving students at the School of Medicine.

THE JAMES HOLLORAN SCHOLARSHIP was established in 1990 by multiple friends and a family member from the Class of 1990 to provide financial support for deserving students at the School of Medicine.

THE HARRY R. JACOBSON M.D. AND JAN JACOBSON SCHOLARSHIP was established in 2004 through the estate of Grace McVeigh, B.A. 1925, to provide financial support based on need for deserving students at the School of Medicine.

THE ANNETTE SCHAFFER ESKIND SCHOLARSHIP was established in 2007 by the William and Mary Foundation to provide financial support for worthy students at the School of Medicine.

THE J. A. K. SCHOLARSHIP was established in 1971 by Susan and Willard J. S. to provide financial support for students at the School of Medicine.

THE HOLLIS E. JOHNSON AND FRANCES SETTLE JOHNSON SCHOLARSHIP FUND was established in 1990 by Dr. Hollis E. Johnson, M.D. 1921, to provide financial support for worthy students at the School of Medicine.

THE ERNEST G. AND MIRIAM H. KELLY SCHOLARSHIP FUND was established in 2008 by Dr. and Mrs. Ernest G. Kelly to provide financial support for students at the School of Medicine.

THE EARL A. AND FRANK B. KIMZEY SCHOLARSHIP was established in 1989 and the bequest realized in 2012 through the estate of Mrs. Frances K. Riley to provide financial support based on merit for deserving students at the School of Medicine.

THE IKE J. KUHN SCHOLARSHIP was established in 1946 through the bequest of Ike J. Kuhn to provide financial support for worthy students at the School of Medicine.

THE ANN LIGHT SCHOLARSHIP FUND was established in 1983 by Mrs. Ann Light to provide financial support for students at the School of Medicine.

THE DORIS M. AND FRED W. LOVE HONOR SCHOLARSHIP was established in 2015 through the estates of Doris M. Love and Fred W. Love, M.D. 1945, to provide financial support based on merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE CHARLES T. LOWE SCHOLARSHIP FUND was established in 2003 through the bequest of Charles T. Lowe, B.A. 1932, M.D. 1936, H.O. 1936, to provide financial support for students at the School of Medicine.

THE LUX SCHOLARSHIP FOR ORAL SURGERY was established in 1990 through the bequest of Konrad Lux, M.D. 1925, to provide financial support for worthy and qualified students in the graduate program of Oral Surgery at the School of Medicine.

THE THOMAS L. MADDOX M.D. FUND was established in 1944 through the realized bequest of Mrs. Sallie A. C. Watkins to provide financial support for male students at the School of Medicine.

THE JACOB MARTIN SCHOLARSHIP FUND was established in 1989 by Murphy Baxter to provide financial support based on need for students at the School of Medicine.

THE MARGARET LOONEY MCALLEN SCHOLARSHIP was established in 2005 by Dr. C. Ashley McAllen, M.D. 1987, to provide financial support based on need for deserving students at the School of Medicine.

THE ROBERT L. AND BILLYE MCCracken SCHOLARSHIP FUND was established in 2003 by Dr. Robert L. McCracken, M.D. 1939, to provide financial support for students at the School of Medicine.

THE PATRICIA AND EDWARD J. McGAvoCK SCHOLARSHIP was established in 2000 through the bequest of Mrs. Patricia Warren McGa-vock to provide financial support for students at the School of Medicine.
THE CHARLES AND EDITH MCGILL SCHOLARSHIP FUND was established in 2000 through the trust of Dr. Charles M. McGill, M.D. 1935, and Mrs. Edith McGill to provide financial support for students at the School of Medicine.

THE BARTON MCISWAIN ENDOWED SCHOLARSHIP was established in 1994 by multiple donors to provide need-based scholarships to students at the School of Medicine.

THE BESS AND TOWNSEND A. MOVEIGH SCHOLARSHIP FUND was established in 1977 by Miss Grace McVeigh, B.A. 1925, to provide full-tuition, four-year financial support for needy and worthy students at the School of Medicine.

THE MEDICAL STUDENT SCHOLARSHIPS GIFT FUND was established by various donors to provide financial support for students at the School of Medicine.

THE H. HOUSTON MERRITT SCHOLARSHIP FUND was established in 1990 through the estate of Mabel Carmichael Merritt and Dr. H. Houston Merritt, B.A. 1922, to provide financial support for worthy students at the School of Medicine.

THE JAMES PRESTON MILLER SCHOLARSHIP FUND was established in 1960 by the bequest of Mr. James P. Miller to provide financial support for deserving students to obtain medical training at the School of Medicine at Vanderbilt University.

THE ANN MINOT ENDOWED SCHOLARSHIP was established in 1994 by multiple donors to provide financial support based on need for students at the School of Medicine.

THE BARBARA D. MURMAN MEMORIAL SCHOLARSHIP FUND was established by Barbara D. Murman, B.A. 1934, to provide financial support based on merit for medical students specializing in cancer research or related fields at the School of Medicine.

THE COLEMAN D. OLDHAM HONOR SCHOLARSHIP FUND was established in 1997 through the liquidation of the Life Income Agreement of Coleman D. Oldham and his sister Emma C. Oldham to provide financial support based on merit for worthy students at the School of Medicine.

THE C. LEON AND JUDITH S. PARTAIN SCHOLARSHIP FUND was established in 1998 by Grace McVeigh, B.A. 1925, to provide financial support based on need for deserving students at the School of Medicine.

THE JONATHAN O. PARTAIN M.D. AND VIRGINIA G. PARTAIN SCHOLARSHIP was established in 2012 by Jonathan O. Partain, B.A. 1957, M.D. 1960, H.O./F.E. 1960, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE ALICE AND V. K. PATTERSON SCHOLARSHIP was established in 2012 by David W. Patterson, B.S. 1981, M.D. 1985, and Linda S. Young, B.A. 1981, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE HARVEY M. FLEET AND FRANK E. PHILLIPY SCHOLARSHIP was established in 2014 by Robert A. Johnson, M.D. 1957, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE PIDWELL FAMILY SCHOLARSHIP FUND was established in 1999 by Mr. and Mrs. David W. Pidwell to provide financial support based on need for students at the School of Medicine.

THE ELIZABETH CRAIG PROCTOR SCHOLARSHIP was established in 2002 by Elizabeth Proctor to provide financial support for worthy medical students at the School of Medicine.

THE DARLINE AND ROBERT RASKIND SCHOLARSHIP was established in 2012 through the bequest of Doris Darline Raskind and Robert Raskind, M.D. 1938, to provide financial support for deserving students at the School of Medicine.

THE THOMAS W. RHODES FELLOWSHIP was established in 1958 through the bequest of Georgianna C. Rhodes to support one or more fellowships at the School of Medicine.

THE RILEY SCHOLARSHIP was established in 1980 by members of the Riley family including Dr. Harris D. Riley Jr., B.A. 1943, M.D. 1948, Frank Riley, B.A. 1949, Richard F. Riley, B.A. 1946, M.D. 1948, and William G. Riley, B.A. 1943, M.D. 1945, to provide financial support based on need for deserving students at the School of Medicine.

THE CANBY ROBINSON SCHOLARSHIPS were established in 1986 to provide financial support for deserving students at the School of Medicine.

THE ROSCOE R. ROBINSON M.D. AND ANN ROBINSON SCHOLARSHIP was established in 1999 through a bequest from Grace McVeigh, B.A. 1925, to provide four-year financial support based on need for deserving students at the School of Medicine.

THE DAVID E. AND BARBARA L. ROGERS ENDOWED SCHOLARSHIP was established in 2003 by Mrs. Barbara Rogers to provide financial support for deserving students at the School of Medicine.

THE HELEN W. AND LOUIS ROSENFIELD ENDOWMENT SCHOLARSHIP FUND was established in 1984 by Helen Rosenfield, B.A. 1934 and Louis Rosenfield, B.A. 1933, M.D. 1936, to provide financial support based on need for students at the School of Medicine.

THE GEORGE E. ROULHAC MEMORIAL SCHOLARSHIP FUND was established in 1995 through a bequest gift from Dr. George E. Roulhac, B.A. 1936, M.D. 1939, to provide financial support for students at the School of Medicine.

THE WILLETT H. "BUDDY" RUSH SCHOLARSHIP was established in 1987 by Martha H. Rush to provide financial support based on need for deserving students at the School of Medicine.

THE RICHARD M. SCOTT SCHOLARSHIP FUND was established in 1988 by multiple donors, including School of Medicine students, to provide financial support based on need for deserving students at the School of Medicine.

THE JOHN SECONDI SCHOLARSHIP FUND was established in 1987 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.

THE JOHN N. SHELL ENDOWMENT FUND was established in 1980 by John N. Shell, M.D. 1928, and Marion S. Shell to provide financial support for worthy medical students at the School of Medicine.

THE ETHEL AND LOUIS SHIVITZ SCHOLARSHIP was established in 2012 by Ira Alan Shivitz, M.D. 1978, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE DR. LESLIE M. AND EVELYN C. SMITH MEDICAL SCHOLARSHIP was established in 1998 by Evelyn Clark Smith, widow of Dr. Leslie McClure Smith, M.D. 1930, to provide financial support based on need for medical students at the School of Medicine.

THE DR. FRANK C. AND CONNIE EWELL SPENCER MEDICAL SCHOLARSHIP was established in 1997 by Frank Cole Spencer, M.D. 1947, and his wife, Connie Ewell Spencer, B.A. 1946, to provide financial support based on need for worthy students at the School of Medicine.

THE K. DOROTHEA AND JOSEPH G. SUTTON SCHOLARSHIP IN MEDICINE was established in 1995 through the bequest of Joseph Guy Sutton and Dorothea O. Sutton to provide financial support based on need for deserving students at the School of Medicine.

THE HARLAN HOWARD TAYLOR SURGICAL SCHOLARSHIP FUND was established in 1987 by multiple donors including Dr. Harlan Howard Taylor, B.A. 1923, M.D. 1926, and his wife, Mrs. Elizabeth Parks Taylor, to provide financial support based on need for fourth-year students at the School of Medicine who are going into surgical fields.

THE BETTYE SUE AND JOHN C. THORNTON JR. SCHOLARSHIP was established in 2013 by John C. Thornton, Jr., B.A. 1937, M.D. 1940, to provide financial support for deserving students at the School of Medicine.

THE VANDERBILT MEDICAL SCHOOL SCHOLARSHIP FUND was established in 2001 by multiple donors to provide financial support based on need for deserving students at the School of Medicine.
THE ANDREW WM. WALKER M.D. SCHOLARSHIP was established in 2010 by Andrew William Walker, M.D. 1960, to provide financial support for deserving students at the School of Medicine.

THE IRENE GEORGIA BEDFORD WATERS SCHOLARSHIP was established in 1990 from the estate of Fanny Edith Winn to provide financial support for deserving students at the School of Medicine.

THE FRED WATSON MEMORIAL SCHOLARSHIP was established through the bequest of Malvina A. Watson to provide financial support based on need for deserving students at Vanderbilt University, including students at the School of Medicine.

THE JOE AND HOWARD WERTHAN FOUNDATION SCHOLARSHIP FUND was established in 1958 by the Joe and Howard Werthan Foundation to provide financial support based on need for students at the School of Medicine.

THE JONI P. WERTHAN SCHOLARSHIP was established in 2010 by Ms. Joni P. Werthan to provide financial support for one or more outstanding student(s) at the School of Medicine.

THE JAMES WHITAKER WEST SCHOLARSHIP was established in 2001 by Mrs. Ruth B. West, A. 1949, and Dr. John Thomas West, B.A. 1949, M.D. 1951, to provide financial support based on need or merit for deserving students at the School of Medicine.

THE DAVID HITT WILLIAMS M.D. MEMORIAL SCHOLARSHIP FUND was established in 1998 through a bequest gift from Ms. Eugenia Williams to provide financial support for worthy and deserving students at the School of Medicine.

THE WILLS SCHOLARSHIP was established in 2003 by Mr. and Mrs. Ridley Wills II through The Wills Foundation to provide financial support based on need for deserving students at the School of Medicine.

THE CHARLES E. AND MILDRED WORK SCHOLARSHIP was established in 2001 by through the bequest of Charles E. Work, M.D. 1935, to provide financial support for deserving students at the School of Medicine.

THE DR. STEPHEN S. KUTNER SCHOLARSHIP was established in 2016 by Project Vision, Inc., on behalf of Jeanney Kutner and Stephen S. Kutner, M.D. 1965, to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE WILLIAM D. JOHNSTON M.D. MEMORIAL SCHOLARSHIP was established in 2016 by Linda H. Welborn, B.S. 1964, M.A. 1968, and William R. Welborn Jr., B.A. 1964, M.D. 1967, to provide financial support based on need for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE JUDSON G. RANDOLPH SCHOLARSHIP was established in 2016 by Susan E. Poirier and Tommy J. Poirier, M.D. 1967, to provide financial support based on need for a student at the School of Medicine.

THE KEITH NOLOP M.D. SCHOLARSHIP was established in 2016 by the Keith Nolop Irrevocable Trust to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE MELINDA AND JEFFREY BALSER M.D./PH.D. SCHOLARSHIP was established in 2010 by Melinda S. and Jeffrey R. Balser, M.D., Ph.D. 1990, to provide financial support for deserving students at the School of Medicine.

THE ESSERMAN FAMILY MEDICAL SCHOLARSHIP was established in 2013 by Ivette C. and Charles H. Esserman to provide financial support based on need or merit for deserving M.D. or M.D./Ph.D. students at the School of Medicine.

THE GOODMAN FAMILY MEDICAL EDUCATION FUND was established in 2010 by the Mt. Brilliant Family Foundation to support educational scholarships to facilitate the training of leaders and scholars in medicine at the School of Medicine.

THE MARY AND WILLIAM O. INMAN, JR. SCHOLARSHIP FUND was established in 1985 by Grace McVeigh, B.A. 1925, to provide financial support for M.D./Ph.D. students at the School of Medicine.

THE MEADE HAVEN CHARITABLE TRUST M.D./PH.D. SCHOLARSHIP was established in 1977 by Jesse E. Wills to provide financial support for M.D./Ph.D. students at the School of Medicine who have made a serious career commitment to obtain advanced experience and training in research in the biomedical sciences.

THE ANN MELLY SUMMER SCHOLARSHIP IN ONCOLOGY was established in 1987 through the estate of Marian Ann Melly, Ph.D. 1969, to provide financial support for deserving medical students at the School of Medicine who are conducting research in the field of oncology.

THE BARBARA R. AND GLENN H. MERZ SCHOLARSHIP was established in 2010 by Barbara R. and Glenn H. Merz to provide financial support for deserving M.D./Ph.D. students at the School of Medicine.

THE HERBERT M. SHAYNE ENDOWMENT was established in 2003 by the Shayne Foundation to provide financial support for two M.D./Ph.D. students at the School of Medicine.

THE TRANSLATIONAL BIOCHEMISTRY ENDOWED RESEARCH AND SCHOLARSHIP FUND was established in 2010 by Janet and J. William Freytag to support research and scholarships at the School of Medicine.

THE THOMAS HUGGINS WINN SCHOLARSHIP FUND was established in 1990 from the estate of Fanny Edith Winn to provide financial support for M.D./Ph.D. students at the School of Medicine.

Financial Information for School of Medicine Master's and Other Doctoral Degrees

Information for the 2017/2018 academic year is as follows.

Doctor of Audiology and Master of Education of the Deaf and Master of Science (Speech-Language Pathology)

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Tuition, 1st year</th>
<th>Tuition, 2nd year</th>
<th>Special, Non-Degree Seeking (per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, 2nd, 3rd years</td>
<td>$37,723</td>
<td>7,468</td>
<td>1,477</td>
</tr>
<tr>
<td>4th year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Master of Science in Medical Physics

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Tuition, 1st year</th>
<th>Tuition, 2nd year</th>
<th>Special, Non-Degree Seeking (per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>$35,479</td>
<td>23,659</td>
<td>1,477</td>
</tr>
<tr>
<td>2nd year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Master of Science in Medical Physics (Clinical Investigation)

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Tuition, 1st year</th>
<th>Tuition, 2nd year</th>
<th>Special, Non-Degree Seeking (per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>$35,535</td>
<td>17,768</td>
<td>1,477</td>
</tr>
<tr>
<td>2nd year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Doctor of Medical Physics

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Tuition, 1st, 2nd years</th>
<th>Tuition, 3rd, 4th years</th>
<th>Special, Non-Degree Seeking (per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, 2nd years</td>
<td>$36,950</td>
<td></td>
<td>1,477</td>
</tr>
<tr>
<td>3rd, 4th years</td>
<td>31,048</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Master of Public Health and Master of Science in Clinical Investigation

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Tuition, 1st year</th>
<th>Tuition, 2nd year</th>
<th>Special, Non-Degree Seeking (per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>$35,535</td>
<td>17,768</td>
<td>1,477</td>
</tr>
<tr>
<td>2nd year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Master of Science in Applied Clinical Informatics

Tuition, 1st year $42,488
Tuition, 2nd year $14,163
Special, Non-Degree Seeking (per credit hour) 1,477
The total estimated cost of attendance for a first year student is $76,921.

Master of Laboratory Investigation

Tuition (12 hours at $1,477/hr.) $17,724
The total estimated cost of attendance for a first year student is $51,481.

Tuition and fees are set annually by the Board of Trust and are subject to review and change without further notice.

Other Fees

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student health insurance fee</td>
<td>$3,253</td>
</tr>
<tr>
<td>Activities and recreation fee</td>
<td>457</td>
</tr>
<tr>
<td>Activities and recreation fee (summer)</td>
<td>76</td>
</tr>
<tr>
<td>Transcript fee (one time only)</td>
<td>100</td>
</tr>
<tr>
<td>Student Health Service fee</td>
<td>65</td>
</tr>
<tr>
<td>Verification fee (first year only)</td>
<td>75</td>
</tr>
</tbody>
</table>

Payment of Tuition and Fees

Fall semester tuition, fees, and other university charges are due and payable by 31 August. Spring semester tuition, fees, and other university charges are due and payable by 3 January. Summer charges are due and payable by 30 June.

Additional information can be found at www.vanderbilt.edu/stuaccts.

Refund of Tuition

Students who withdraw officially or who are dismissed from the university for any reason after the beginning of a term may be entitled to a partial refund in accordance with the schedule shown below. No refund will be made after the tenth week in any semester.

<table>
<thead>
<tr>
<th>Withdrawal prior to the end of</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st full week</td>
<td>100%</td>
</tr>
<tr>
<td>2nd full week</td>
<td>90%</td>
</tr>
<tr>
<td>3rd full week</td>
<td>85%</td>
</tr>
<tr>
<td>4th full week</td>
<td>80%</td>
</tr>
<tr>
<td>5th full week</td>
<td>75%</td>
</tr>
<tr>
<td>6th full week</td>
<td>65%</td>
</tr>
<tr>
<td>7th full week</td>
<td>60%</td>
</tr>
<tr>
<td>8th full week</td>
<td>50%</td>
</tr>
<tr>
<td>9th full week</td>
<td>45%</td>
</tr>
<tr>
<td>10th full week</td>
<td>40%</td>
</tr>
</tbody>
</table>

No refund after the 10th full week.

Late Payment of Fees

Charges not paid by 31 August will be automatically deferred, and the student’s account will be assessed a monthly late payment fee at the following rate: $1.50 on each $100 that remains unpaid after 31 August ($5 minimum). An additional monthly late payment fee will be assessed unless payment is received in full on or before the end of each month, and late payment fees will continue for each month thereafter based on the outstanding balance unpaid as of the end of each month. All amounts deferred are due not later than 1 November for fall semester and 1 April for spring semester. Graduating students are not allowed to defer charges that are billed in advance for the final semester.

Financial Clearance

Students may not be allowed to register for any semester if they have outstanding unpaid balances for any previous semester. No transcript, official or unofficial, will be issued for a student who has an outstanding balance until the account has been paid. Diplomas of graduating students may be withheld until all bills are paid.

International students must provide documentation of having funds sufficient to meet all tuition, mandatory fees, and living expenses for the anticipated period of enrollment before a visa will be issued. Information will be provided by the university Office of International Student and Scholar Services.

Activities and Recreation Fees

The required student activities and recreation fees entitle students to use the facilities of Sarratt Student Center and the Student Recreation Center. The fees also cover admission to certain social and cultural events and subscriptions to certain campus publications. Specific information on these fees is published annually in the Vanderbilt University Student Handbook. By payment of an additional fee, students and their spouses may use their identification cards for admission to athletic events.

Professional Liability Insurance

Students will be automatically covered with professional liability insurance, required of all enrolled medical students, at the time of registration. The annual premium may be payable in addition to tuition. Details of the policy are available at the university student insurance office, and students are encouraged to familiarize themselves with these details and with their responsibilities in this regard. Students are covered whether they are at the Vanderbilt-affiliated hospitals (Vanderbilt University Medical Center, Nashville Veterans Administration Hospital, St. Thomas Hospital, or Baptist Hospital) or elsewhere as a “visiting student,” providing that (1) the clerkship or other educational experience has prior approval from the School of Medicine as course work for credit, and (2) the activities within this experience are consonant with the student’s level of training and experience and are performed under the supervision of appropriate faculty and/or staff.

Disability Insurance

Students will be automatically covered with long-term disability insurance, required of all enrolled medical students, at the time of registration. Details of the policy can be found at https://medschool.vanderbilt.edu/financial-services/insurance.

Student Health Insurance

All degree-seeking students registered for 4 or more hours at Vanderbilt are required to have adequate hospitalization insurance coverage. The university offers a sickness and accident insurance plan that is designed to provide hospital, surgical, and major medical benefits. A brochure explaining the limits, exclusions, and benefits of insurance coverage is available at gallagherstudent.com. Additional information is also available at vanderbilt.edu/stuaccts/g_health.html.

Student Health Service Fee

The required student health service fee covers required immunizations and health screening tests.
Verification Fee
The required verification fee covers all verification processes as required, including criminal background checks and drug screens.

Transcript Fee
All new students entering Vanderbilt for the first time are charged a one-time transcript fee for official university transcripts.

Financial Assistance
Approved educational expenses are met with funds from a combination of sources. Government loans that furnish significant loans to students are the Federal Direct Unsubsidized Loan and Federal Direct Graduate PLUS loans. Private loans are also available to international students. Additional information and applications for financial aid are online at medschool.vanderbilt.edu/financial-services/. Applicants desiring more specific information about financial aid resources should contact the Medical School Office of Student Financial Services.
Courses of Study

The School of Medicine offers the following degree programs: Doctor of Medicine, Doctor of Audiology, Doctor of Medical Physics, Master of Education of the Deaf, Master of Science (Speech-Language Pathology), Master of Science in Medical Physics, Master of Science in Clinical Investigation, Master of Laboratory Investigation, Master of Public Health, and Master of Science in Applied Clinical Informatics. Courses in the School of Medicine are offered in both semester and year-long formats. Courses leading to the M.D. do not carry credit hours; other programs use the traditional credit hour designation.

The university reserves the right to change the arrangement or content of courses, to change texts and other materials used, or to cancel any course on the basis of insufficient enrollment or for any other reason.

Courses leading to the Doctor of Medicine*

*Glossary of Terms available at http://vanderbilt.edu/mdcourseglossary/

Anesthesiology

ANES 5310. Basic Clinical Anesthesiology. Students will become an integral part of an anesthesia care team model (attending anesthesiologist and resident) at VUMC. Working side-by-side with this care team, students will learn and actively participate in the perioperative management of adult patients presenting for surgical procedures and diagnostic or therapeutic interventions requiring anesthetic care and management. Students will participate in preoperative assessment, risk stratification, development and execution of anesthetic plan (including induction of anesthesia, airway management, maintenance of anesthesia, and emergence), and immediate postoperative care of patients. This rotation will provide a hands-on, continually monitored and mentored experience. At the conclusion of this two-week elective rotation, students will be able to take and perform a focused anesthesia history and physical, evaluate airway anatomy for ease or difficulty of airway management, and demonstrate valuable skills of mask/bag ventilation, intubation, and LMA placement. Additionally, through designated lectures, assigned textbook, selected journal readings, and hands-on clinical experiences, students will be acquainted with the pharmacology and physiology of anesthetic induction and maintenance agents, neuromuscular blocking drugs, vasoactive substances, local anesthetics, and opioid and non-opioid analgesics. Students will assess and interpret physiologic data from both non-invasive and invasive monitors and explain implementation of interventions to correct physiologic and hemodynamic perturbations.

ANES 5315. Perioperative Neurosciences: The Brains of the Operation. The overall goal of this elective is to have students apply their knowledge of anatomy, physiology, and pharmacology to the presentation and management of common neurological disorders. The students will have dedicated orientation and didactic sessions to review their experience and knowledge. Each will have a set of self-study exercises which will be reviewed with their dedicated mentor. Students will participate as active team members in several settings including the neuro care unit (NCU) and in the operating rooms with the neuro anesthesia and surgical teams. At the end of the two-week rotation, the students will demonstrate a focused history and physical exam of a neurological patient. They will be able to state the pathophysicsiology of the most common presenting neurological conditions such as raised intracranial pressure, seizures, or strokes including common methods of diagnosis. They will be able to present the patient and, based on their knowledge of CNS physiology, formulate a basic plan for medical or surgical management. In addition, students will understand how the care of these patients (nursing, monitoring, and pharmacology) differs from other medical conditions and the role of each specialty in the care of these patients.

ANES 5610. ACE: Perioperative Medicine and Surgical Home. This course is designed to emphasize the concepts of coordinated perioperative medicine and enhanced recovery after surgery (ERAS). Evidence-based guidelines, optimization/standardization of perioperative care, and multimodal strategies to decrease postoperative morbidities are key components of ERAS. The student will function as integral part of the Perioperative Anesthesia Consult Service and learn fundamental aspects of anesthetic care that maximize perioperative pain control and reduce morbidity and health care costs related to cardiac, pulmonary, renal, endocrine, PONV complications or surgical site infections. The student will have an opportunity to be involved in the preoperative, intraoperative, and postoperative management of surgical patients on ERAS pathways.

ANES 5611. ACE: Advanced Clinical Anesthesiology. This ACE will define the role of Anesthesiology as a Perioperative Medicine Specialty in which students will gain broad understanding of the perioperative management of patients across all age groups undergoing surgical procedures. Course content will emphasize the following principles: preoperative assessment, development and execution of an anesthetic plan (including induction of anesthesia, airway management, maintenance of anesthesia, and emergence), and management of acute pain. Students will become an integral part of an anesthesia care team model (attending anesthesiologist and resident). Working side-by-side with this care team, students will learn and actively participate in the anesthetic management of patients presenting for surgical procedures and diagnostic or therapeutic interventions.

ANES 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

ANES 7100. AWAY ACE: Anesthesiology. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

ANES 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Emergency Medicine

EM 5315. Emergency Medicine Elective. This elective will provide a two-week snapshot into the approach to any event or circumstance that threatens loss of life, injury to person or property, or human suffering. Students will be introduced to critical situations in the actual emergency department while learning the important skills required for patient stabilization and assessment. At the conclusion of the elective, students will understand and gain comfort in their future roles as physicians in any emergency situation in or out of the hospital setting. They will understand emergency care while extrapolating their current beliefs regarding emergency care to situations in the hospital setting and in the surrounding community. Students will apply problem-based strategies and teamwork to patient care, using the introductory principles in emergency medicine. They will practice an evidence-based approach and engage in teamwork to enhance their knowledge and skills in treating victims of cardiopulmonary and traumatic emergencies.

EM 5325. Bedside Ultrasoundography in the Emergency Medicine Department. Students will be introduced to point-of-care ultrasonography with specific emphasis on its use in the acute care setting. Students will learn about sonography both through web-based resources and videos as well as during weekly didactic sessions. In addition, students will spend several shifts in the Emergency Department each week both observing and performing point-of-care sonography under the guidance of the Director and Assistant Director of Emergency Ultrasound, Emergency Ultrasound Fellows, and Emergency Medicine residents. At the conclusion of the two-week elective rotation, students will be able to describe the appropriate use and application of point-of-care sonography in multiple clinical scenarios. They will be able to recognize normal and pathologic ultrasound images of several core applications. They will acquire the necessary technical skills to operate the ultrasound machine and to obtain
EM 5330. Prehospital Emergency Medicine: Overview of EMS, Wilderness, Event, and Mass Casualty Emergency Med. In this introduction to prehospital emergency medicine, elective students will experience the full range of EMS—from systems management in the Vanderbilt Communications Center to individual patient care in ambulance ride alongs. Through riding with Nashville Fire paramedics and physician directors, observing medical control calls, participating in quality improvement meetings, and reviewing prehospital medical landmark literature, students will develop an understanding of the physician role in prehospital medical systems. Didactics and hands-on simulation will also cover disaster, wilderness and event medicine. This course is designed for students interested in emergency medicine and its subspecialties.

EM 5950. IDIS 5001. CASE—Clinical Application of Scientific Evidence. The course curriculum is a four-year thread. Students will be introduced to basic principles of anatomy and pharmacology in order to provide a broad range of materials and relate molecular and cellular processes earning degrees in advanced practice nursing, pharmacy and social work. The teams work alongside their assigned clinical preceptors in order to deeply understand the many factors—biological, social, psychological, economic and cultural—that impact patient health and wellbeing, as well as system factors that impact how our health care teams and clinics function on a daily basis. The program launches with a week-long summer immersion. Throughout the academic year, student teams work and learn together in clinics, seminars and simulation activities. Program goals include: cultivate respectful professionals, nurture self-directed workplace learners, prepare leaders who contribute to a collaborative-practice-ready workforce, integrate the patient care experience with health professions knowledge, and improve the health care delivery system by integrating systems knowledge with patient care. Participation in VPII allows for medical students to waive credit in specified areas of Foundations of Health Care Delivery (FHD). Specific graduation requirements can be found at https://medschool.vanderbilt.edu/vpil/.

EM 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

EM 7100. AWAY ACE: Emergency Medicine. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

EM 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away Vanderbilt. Approval required.

Interdisciplinary Studies
IDIS 5015. Interprofessional Continuity Clinic 1: Vanderbilt Program in Interprofessional Learning (VPIL). The Vanderbilt Program in Interprofessional Learning (VPIL) is a longitudinal continuity clinic experience where students work and learn together as members of an interprofessional team. This is the first year of a two-year experience. Medical students accepted into the program are assigned to teams of health professions students earning degrees in advanced practice nursing, pharmacy and social work. The teams work alongside their assigned clinical preceptors in order to deeply understand the many factors—biological, social, psychological, economic and cultural—that impact patient health and wellbeing, as well as system factors that impact how our health care teams and clinics function on a daily basis. The program launches with a week-long summer immersion. Throughout the academic year, student teams work and learn together in clinics, seminars and simulation activities. Program goals include: cultivate respectful professionals, nurture self-directed workplace learners, prepare leaders who contribute to a collaborative-practice-ready workforce, integrate the patient care experience with health professions knowledge, and improve the health care delivery system by integrating systems knowledge with patient care. Participation in VPIII allows for medical students to waive credit in specified areas of Foundations of Health Care Delivery (FHD). Specific graduation requirements can be found at https://medschool.vanderbilt.edu/vpil/.

IDIS 5016. Interprofessional Continuity Clinic 2: Vanderbilt Program in Interprofessional Learning (VPIL). The Vanderbilt Program in Interprofessional Learning (VPIL) is a longitudinal continuity clinic experience where students work and learn together as members of an interprofessional team. This is the second year of a two-year experience. Medical students accepted into the program are assigned to teams of health professions students earning degrees in advanced practice nursing, pharmacy and social work. The teams work alongside their assigned clinical preceptors in order to deeply understand the many factors—biological, social, psychological, economic and cultural—that impact patient health and wellbeing, as well as system factors that impact how our health care teams and clinics function on a daily basis. Throughout the academic year, student teams work and learn together in clinics, seminars and implement a quality improvement project. They will present their project as part of a Capstone event that completes the program. Program goals include: cultivate respectful professionals, nurture self-directed workplace learners, prepare leaders who contribute to a collaborative-practice-ready workforce, integrate the patient care experience with health professions knowledge, and improve the health care delivery system by integrating systems knowledge with patient care. Participation in VPIII allows for medical students to waive credit in specified areas of Foundations of Health Care Delivery (FHD). Specific graduation requirements can be found at https://medschool.vanderbilt.edu/vpil/.

IDIS 5028. Human Blueprint and Architecture. This course is designed to familiarize students with the structures, biomolecules, and processes that constitute life, human health, and disease at the molecular, cellular, and tissue level. Course materials will provide a mechanistic foundation for the medical curriculum that will help equip students with skills necessary to adapt to the practice of medicine in the future. Human Blueprint and Architecture will employ a coordinated and integrated approach to teaching underlying principles of biochemistry, cell and tissue biology, genetics, and pathology with an emphasis on medical conditions. Students also will be introduced to basic principles of anatomy and pharmacology in order to lay foundations for studies on organ systems and disease treatment. In order to provide a broad range of materials and relate molecular and cellular processes to the study of human disease, the course will utilize multiple learning modalities, including large group sessions, case-based learning (CBL) sessions, team-based learning (TBL) sessions, laboratory sessions, and interactive patient-oriented clinical case presentations. The course will be integrated with all other learning activities in the Foundations of Medical Knowledge phase. Required. First year.

IDIS 5032. Microbes and Immunity. This course familiarizes students with the etiology, risk factors, epidemiology, diagnosis, pathogenesis, clinical characteristics, prevention and treatment of common microbial and immune diseases. The course content includes a discussion of the soluble factors and cells that make up the immune system and how these different
components contribute to health and disease in a variety of situations. It also provides an overview of the pathogenic bacteria, viruses, fungi, protozoa and parasites. Finally, the course includes several topics that prepare students for the Homeostasis class of the Foundations in Medical Knowledge Phase. The course consists of lectures, case-based small group discussions, case-based intermediate size group discussions, laboratory sessions, and optional problem and review sessions. Required. First year.

IDIS 5033. Learning Communities—Foundations of Medical Knowledge. The Learning Communities FMK course seeks to maximize medical student learning related to student development as professionals. Helping students build an appropriate image of the medical profession and skill set related to functioning within the health care environment are the essential foundation for future success. Development as professionals involves knowledge, skills and attitudes related to students’ practice as well as the environment within which the practice will occur. The longitudinal nature and trusting environment created within the Learning Communities fosters student professional development, specifically addressing personal areas of metacognition and reasoning, ethics, service, and leadership, as well as the knowledge and understanding of the broader health care environment and payment. The academic sessions will be developmentally appropriate as the students mature through the phases, as well as effectively integrated with other course and clerkship efforts. In sum, the Learning Communities will provide the nurturing environs to maximize student development as professionals.

IDIS 5033B. Learning Communities—Foundations of Medical Knowledge B.

IDIS 5038. Homeostasis. This course is designed to teach students the normal anatomic, molecular, biochemical, and physiologic features of the cardiovascular, pulmonary, renal and blood systems. Course content will provide a framework for an understanding of the pathology and pathophysiology of diseases that affect these homeostatic systems as well as their diagnosis (laboratory and imaging), and therapy (pharmacologic and nonpharmacologic). A multidisciplinary approach will allow integration of pathobiology, clinical manifestations, and therapy in a comprehensive manner. The course will utilize a variety of teaching modalities that include case-based learning, team-based learning, lectures, laboratory sessions focused on the gross and microscopic anatomy and pathology, and technology-based modalities and simulations. Learning will be in the context of clinical medicine in order to prepare students for the next phase of their education in the clinical setting. The course will be integrated with all other learning activities in the Foundations of Medical Knowledge Phase. Required. First year.

IDIS 5048. Foundations of Health Care Delivery 1: Continuity Clinical Experience. Foundations of Health Care Delivery 1: Continuity Clinical Experience is a longitudinal clinical experience where individual students are integrated into a clinic to learn about the clinical care team, clinic setting, and develop skills to care for individual patients while learning about the larger care-delivery system. Course activities including clinical experiences and seminars will address the following goals: 1. Prepare professionals with systems-level skills necessary to provide care that is safe, effective, patient-centered, timely, efficient, and equitable. 2. Integrate health systems sciences with clinical care. 3. Cultivate respectful professionals.

IDIS 5048B. Continuity Clinical Experience I B.

IDIS 5055. Foundations of the Profession. The goal of this course is to provide students with an understanding of the historical and social context of the practice of medicine. Through assigned readings, lectures, small group discussions and simulations, students will gain an appreciation for the core values and ethical principles that guide the profession’s relationship with society and the physician’s relationships with patients. They will also explore some of the contemporary challenges facing physicians today, including the need to improve health care disparities, quality, and safety. First year.

IDIS 5058. Endocrine, Digestion, and Reproduction. This course is designed to familiarize students with the normal anatomic, molecular, biochemical, and physiologic features of the endocrine, digestive and reproductive systems. Course content will provide a framework for an understanding of the pathology and pathophysiology of diseases that affect these systems as well as their diagnosis (laboratory and imaging) and therapy (pharmacologic and nonpharmacologic). The role of nutrition in normal homeostasis as well as disease will be included. Pregnancy from implantation to delivery as well as its complications will also be learned. A multidisciplinary approach will allow integration of pathobiology, clinical manifestations, and therapy in a comprehensive manner. The course will utilize a variety of teaching modalities that include case-based learning, team-based learning, patient interviews, lectures, laboratory sessions focused on the gross and microscopic anatomy and pathology, and technology-based modalities and simulations. Clinical context will be emphasized in order to prepare students for the next phase of their education in the clinical setting. The course will be integrated with all other learning activities in the Foundations of Medical Knowledge Phase. Required. First year.

IDIS 5068. Brain, Behavior, and Movement. The Brain, Behavior, and Movement module provides an overview of contemporary neuroscience and introduction to neuropsychiatric disorders. The format of the module includes lectures, lab exercises, small group discussions, and case presentations and discussions. In conjunction with Physical Diagnosis, skills training includes the psychiatric interview and neurological exam. The module emphasizes a basic understanding of the anatomy, physiology, and pharmacology of the central and peripheral nervous systems and the pathophysiological underpinnings of neuropsychiatric disorders. The course provides the foundations of Neurology and Psychiatry. This course is a module within the Foundations of Medical Knowledge Phase. Required. First year.

IDIS 5068B. Brain, Behavior, Movement B.

IDIS 5100. ACE: Primary Care Medicine, VU. All immersion phase students will have a required four-week unit in an ambulatory primary care setting, and this course fulfills that requirement. Students will choose an experience in outpatient pediatrics, internal medicine, family medicine, or internal medicine/pediatrics. Practice sites include ambulatory clinics at Vanderbilt or within the Nashville-area community. The clinic experience is supplemented by a home visit to follow-up on a patient seen during the ambulatory clinic experience. Assistance with placement is provided.

IDIS 5150. AWAY ACE: Primary Care Medicine. All immersion phase students will have a required four-week unit in an ambulatory primary care setting, and this course fulfills that requirement. Students will choose an experience in outpatient pediatrics, internal medicine, family medicine, or internal medicine/pediatrics. Practice sites include ambulatory medicine or pediatric clinics. Students may arrange a primary care experience outside of Nashville, subject to the approval of the course directors. The clinic experience is supplemented by a home visit to follow-up on a patient seen during the ambulatory clinic experience. Assistance with placement is not provided, and students are also responsible for insuring that proper affiliation agreements are in place for this rotation.

IDIS 5200. MSTP Seminar Series. This elective is open to students in the Medical Scientist Training Program only.

IDIS 5201. Foundations of Biomedical Research I. The major goals of this course for MSTP students in their first year of Medical School are to help them to gain familiarity in reading primary research literature, including utilization of statistical analyses, and to aid the students in selection of a thesis mentor and in understanding of appropriate expectations for both mentor and mentee. These goals will be accomplished in a casual setting through interactions with potential MSTP-eligible faculty and lab members, consultation with faculty advisors, and primary literature discussions. Students will be assessed based upon course participation. Open to students in the Medical Scientist Training Program only. First year.

IDIS 5202. Foundations of Medical Research II. The purpose of this course is to prepare MSTP students for the biomedical research phase of training. The course objective is to develop skills for physician-scientist trainees in critical evaluation of the research literature and formulating high-impact research questions. For second year students the course will be tailored to the individual interests of the students and their research mentors, with particular emphasis on examining scientific papers specific to the students’ field of research. Open to students in the Medical Scientist Training Program only, Second year.
IDIS 5215. Foundations of Health Care Delivery 2: Clinical Systems of Care. Foundations of Health Care Delivery 2: Clinical Systems of Care is a course designed to introduce students to the larger health care systems. Students will engage in didactics and experiential learning to develop a deeper understanding of the systems involved in practicing within a mesosystem and macrosystem. Students will learn about social determinants of health and community advocacy, experience a variety of settings of care, learn about safe transitions of care, and optimizing health care value. Through these experiences, students will address the following goals: 1. Prepare professionals with systems-level skills necessary to provide care that is safe, effective, patient-centered, timely, efficient, and equitable. 2. Integrate health systems sciences with clinical care. 3. Cultivate respectful professionals.

IDIS 5220. PLAN. This course introduces students to the basic concepts and principles of research and their application to clinical practice and population health in preparation for their Research Immersion. The course provides the necessary research skills and competencies to develop a basic but complete and structured research proposal for the upcoming Research Immersion experience.

IDIS 5233. Learning Communities—Foundations of Clinical Care. The Learning Communities FCC course integrates with the student’s clerkship experiences and builds on the students’ experiences Learning Communities FMK. Prior efforts addressed important professional development topics such as metacognition, clinical reasoning, ethics, leadership, and health care delivery. The Learning Communities FCC course connects these theoretical concepts and discussions with the practical and experiential learning of the students during their clerkship rotations. Students meet in College-based groups for discussion and reflection with the College Mentors, as well as in clerkship-based groups with ethics faculty for deeper exploration of ethical issues specific to each clerkship. In sum, the Learning Communities FCC course will continue to provide nurturing environs to enhance student development as professionals by allowing for the exploration of the practical application of previously learned concepts.

IDIS 5310. CiM Multi-Specialty Elective. Throughout this two-week elective, students will shadow attending and resident physicians of their choosing in various specialties and subspecialties. The purpose of the course is to introduce students to various fields of medicine in an effort to aid in their specialty selection in the fourth year of medical school. A list of attending physicians in various specialties will be provided by the Student Representatives of Careers in Medicine (CiM). Enrolled students will be responsible for contacting physicians and scheduling their shadowing experiences over the two-week period. Two weeks prior to the beginning of the elective, a meeting with the course director(s) will outline the process for scheduling these experiences and expectations for the elective. Shadowing experiences with faculty members outside the CiM-provided list may be arranged with prior approval from the course director. At the end of the elective, students will participate in a professional development workshop and an individual exit counseling session with the Assoc. Dean for Medical Student Affairs to discuss their clinical experiences and their progress towards choosing a specialty. Students will schedule shadowing experiences for nine days of the elective and attend the professional development workshop and the exit counseling session. Shadowing of one physician is limited to a maximum of three days. Enrolled students will submit their shadowing schedule to the course director(s) prior to the start of the elective for approval. The professional development workshop will address topics such as CV writing and public speaking. At the conclusion of the two-week rotation, students will be familiar with the schedules, daily activities, patient populations, and consultations in several specialties. The shadowing experience and exit counseling session with the Assoc. Dean for Medical Student Affairs will provide students with information that will aid their specialty selection and CV. [0]

IDIS 5314. Critical Thinking and Logic in Medicine. Critical Thinking, logic and reasoning play a fundamental role in everyday patient care as well as research design, interpretation and application. While development and application of evidence based medicine is crucial to advancement of all aspects of clinical practices, it is of little significance without sound critical thinking and logic reasoning. Students will join anesthesiologists and/or Intensivists in the operating rooms and ICU from 7:30 to 12:00 every other day throughout the elective period. Didactics about the principals of critical thinking in medical practice and other similar high intensity environments will be offered in form of lectures, discussion groups and simulations. Pre-acquired knowledge in the field of anesthesiology and critical care is not required. Problem solving skills development will be based on concept of critical thinking and asking the right questions. Resources to acquire needed knowledge to apply in problem solving will be provided to students and will consist mainly electronic resources available on the internet and intranet followed by physicians practicing in the respective fields. At the conclusion of the two-week elective rotation, students will be able describe and apply principals of critical thinking and reasoning to patient care. Application of logic and reasoning to individual patient care as well as generating the relevant hypothesis on which future literature search and study design should answer. While problems in anesthesiology and critical care will serve as examples, the understanding, concepts and resources will be generalizable to all fields of medicine. Objective pre- and post-course evaluation will be given to track learning and help in improving the course for future students. A subjective evaluation will also be collected from each student. Students will receive feedback at the end of each clinical exposure (2 days) on the elective and at the conclusion of the post-course evaluation. The course will be graded on a pass/fail basis. Students should report to MOC 3161 on their first day.

IDIS 5316. Medicine and Media. As the interest in science and medical news grows and more media outlets exist to report and analyze such news, the need will increase for medical professionals who are skillful at using media of all types to convey information. An understanding of various facets of how science and medical news are produced and reach the public may be gained through working with Vanderbilt communications professionals engaged in reaching the public with such news. Students in this elective will join various units of Vanderbilt’s Communications team, both as observers and participants, in order to learn some of the fundamentals of medical and health communications at a major academic medical center. These opportunities will include, but not be limited to, local and national media relations; getting hands-on experience with medical journalism by researching and writing a press release or a story for the VUMC Reporter or other Medical Center publications; working with the social media team to learn about the uses of media such as Facebook and Twitter to convey news, as well as health and wellness information; working with the Division’s web team to learn about the presentation of news and information via the web; receiving a more institution-wide perspective by working with the editors of Research@Vanderbilt, our website devoted to research news; and working with VUMC faculty who are frequently called on by the press to convey health information to the public. The students will also be assigned readings and viewings that provide context to the daily hands-on experience. At the conclusion of the two-week elective, students will be able to interview one or more sources and write a publishable news story on biomedical research or a health topic; understand the daily interactions between the local and national media and a medical center such as Vanderbilt that seek to influence both public health and its national reputation via media relations; and understand the key role of social media in the modern media environment. Students will also have the opportunity to become more skilled at being interviewed and accurately conveying information, even in a challenging environment. Additionally, the students will have an understanding of some of the key differences in professional assumptions between media professionals and science professionals.

IDIS 5327. Adult Communication Disorders. This two-week elective will offer students an opportunity to focus on adult communication disorders. Students will be provided didactic course work in the relevant areas and will observe and, when appropriate, participate in surgical, medical, and clinical care of affected patients. Students will join an interdisciplinary team of clinicians, scientists, and physicians to serve and investigate adult patients who exhibit acquired communication or vestibular disorders as a result of damage to the central or peripheral nervous system. Acquired neurogenic disorders commonly are associated with stroke, dementia, Parkinson’s disease, Lou Gehrig’s disease, tumor, and traumatic brain injury, which result in aphasia, dysarthria, and apraxia of speech. The most commonly diagnosed vestibular disorders include benign paroxysmal positional vertigo (BPPV), labyrinthitis or vestibular neuritis, Ménière’s disease, secondary endolymphatic hydrops, and perilymph fistula, which
result in a range of difficulties including vestibular disturbance and difficulties with balance and falls. Students will spend a portion of their time with the Neurogenics Team and a portion of their time with the Vestibular Team. Care providers from the departments of Hearing and Speech Sciences, Neurology, Physical Medicine and Rehabilitation, Trauma, and Otolaryngology will participate in this elective.

IDIS 5329. Pediatric Communication Disorders. This two-week elective will offer students an opportunity to focus on pediatric communication disorders. Students will be provided didactic course work in the relevant areas and will observe and, when appropriate, participate in surgical, medical, and clinical care of affected patients. Students will join an interdisciplinary team to serve and investigate pediatric patients who exhibit hearing loss, dysphagia (a feeding and swallowing disorder), or Autism Spectrum Disorder (ASD). ASD includes Autism, Pervasive Developmental Disorder, not otherwise specified and is characterized by a disturbance of normal neural organization and connection resulting in impaired social interaction and communication. Students will spend a portion of their time with the cochlear implant and hearing aid teams, a portion of their time with the dysphagia team, and a portion of their time with the ASD team. The Hearing Loss Team will consist of audiologists, surgeons, speech-language pathologists, and a number of other individuals who work with these children. Clinical and surgical observations will take place in various clinics within the Bill Wilkerson Center and in the Otolaryngology Clinic at Monroe Carell Jr. Children’s Hospital at Vanderbilt. The Dysphagia Team will consist of otolaryngologists and speech-language pathologists, and a number of other professionals who work with these children. Clinical and surgical observations will occur within the Complex AeroDigestive Evaluation Team (CADET) Clinic. The ASD Team will consist of care providers and scientists from the departments of Psychiatry, Psychology, Developmental Pediatrics, Hearing and Speech Sciences, Neuroscience, and a number of other individuals working with these children.

IDIS 5330. Critical Thinking and Logic in Medicine. Critical Thinking, logic and reasoning play a fundamental role in everyday patient care as well as research design, interpretation and application. While development and application of evidence based medicine is crucial to advancement of all aspects of clinical practices, it is of little significance without sound critical thinking and logic reasoning. Students will join anesthesiologists and/or intensivists in the operating rooms and ICU from 7:30 to 12:00 every other day throughout the elective period. Didactics about the principals of critical thinking in medical practice and other similar high intensity environments will be offered in form of lectures, discussion groups and simulations. Pre-acquired knowledge in the field of anesthesia and critical care is Not required. Problem solving skills development will be based on concept of critical thinking and asking the right questions. Resources to acquire needed knowledge to apply in problem solving will be provided to students and will consist mainly electronic resources available on the internet and intranet followed by physicians practicing in the respective fields. At the conclusion of the two-week elective rotation, students will be able describe and apply principals of critical thinking and reasoning to patient care. Application of logic and reasoning to individual patient care as well as generating the relevant hypothesis on which future literature search and study design should answer. While problems in anesthesiology and critical care will serve as examples, the understanding, concepts and resources will be generalizable to all fields of medicine. Objective pre- and post-course evaluation will be given to track learning and help in improving the course for future students. A subjective evaluation will also be collected from each student. Students will receive feedback at the end of each clinical exposure (2 days) on the elective and at the conclusion of the post-course evaluation. The course will be graded on a pass/fail basis. Students should report to MCE 3161 on the first day. [MC]

IDIS 5335. Aerospace Medicine Elective, USAF. This course provides an overview of flight and operational medicine introducing students to unique patient populations and occupationally unique environments. Field experiences include visits to a fire station, hypobaric chamber, and an incentive flight. Students will visit the National Museum of the U.S. Air Force, exploring past and present airframes in the USAF inventory. Finally, an outdoor mass casualty triage exercise will be conducted at the National Center for Medical Readiness at Calamityville.

IDIS 5340. Introduction to Business of Medicine. This elective rotation is designed to give a medical student an introduction the business aspects of health care. The goal of this course is to have students begin to get an appreciation of how modern health care and business intersect. Whether in a small single provider clinic or a large academic medical center, core business principles are used to manage and deliver quality health care. Specifically, this rotation will focus on the business principles of: health care economics, operations, leadership, strategy, and finance. We will use a combination of didactic lectures, outside reading, and direct mentor shadowing to give students exposure to these business topics. By the end of the rotation, a student should be able to: describe key concepts within each of the five business topics, discuss specific examples of how these topics are applied in the delivery of health care, and have a basic understanding of government insurance products and policies, and how they relate to health care delivery.

IDIS 5500. USMLE Step 1 Independent Study. This course requires students to undertake a two-month period of independent study for Step 1 of the United States Medical Licensing Exam. This course is required prior to advancing into Immersion phase requirements.

IDIS 5610. AE: Med School 101. Students will develop and conduct “Med School 101,” a 3-week course for gifted high school students as part of Vanderbilt University’s Program for Talented Youth (PTY). The course begins early in the spring semester, when third-year students can participate in optional training at the Center for Teaching. Later in the spring, under the direction of the senior associate dean for health sciences education, students create a curricular plan, develop teaching sessions and arrange for other teaching sessions and clinical experiences. Finally, students implement the course during the first full three weeks in July.

IDIS 5613. ISC: Critical Illness. Regardless of a student’s individual specialty choice, each will be called upon to provide competent care for critically ill patients during their residency training. The successful management of critically ill or injured patients requires a thorough understanding of physiology, pathophysiology, and pharmacology. By combining targeted teaching with hands-on experiences in different ICUs across the medical center, Critical Illness will deepen knowledge of the anatomy, physiology, pathophysiology, imaging, biostatistics, ethics, microbiology, neuroscience, nutrition science, pharmacology, and behavioral medicine inherent in critically ill patients. In the first week, all students will be immersed in Critical Care Skills Week, a highly regarded simulation-based learning experience that culminates in receipt of Fundamentals of Critical Care Support (FCCS) certification. All students will spend a week caring for patients in the Medical, Surgical, Burn, Neurologic, Cardiovascular, or Pediatric ICU. The other 2 weeks will be spent in learner-focused case-based education facilitated by ICU faculty, ICU radiology and palliative care sessions, additional patient-centered experiential learning opportunities and hands-on workshops in ICU-specific technical skills such as airway management, ventilator manipulation, and chest tube placement. Completes the acute care course requirement.

IDIS 5614. ISC: Community Healthcare—Patients, Populations and Systems of Care. In Community Healthcare, students will be equipped to effectively address predictors of poor health on an individual level, and to engage health care systems in ways that promote meaningful change. Students will move beyond an investigation of the social determinants of health to provide individualized patient care and engage the health care system. Regardless of the field students decide to enter, they will encounter vulnerable populations of patients and should be equipped to address patient needs in ways that promote healing. Foundational science topics will include population health, health policy, health determinants, community engagement, systems engineering, public health, organizational management, health ethics, resource utilization, implementation science, behavioral science, and communication science. The course is comprised of clinical experience in a safety net clinic, seminar sessions with local and national experts to facilitate skill development, and completion of a final project. The course will equip students with a “portable toolkit” of skills that can be used in any field of practice in any location. This course qualifies for primary care credit.

IDIS 5618. ISC: Global Health. Health promotion, disease prevention and control, and mortality reduction require an interprofessional, multidisciplinary response for multidimensional problems. Whether from the point...
of view of humanitarian interest, research competitiveness, full utilization of our educational resources, or the need for global expertise for modern America, the global health agenda has emerged as an increasingly important component of higher education in the U.S. In this on-the-ground experience, students are placed at Vanderbilt partner sites in various locations around the world and are introduced to key topics and concepts in global health including diseases, root causes, and both clinical and public health interventions common in low-resource settings. Foundational science topics include Biostatistics, Epidemiology, Immunology, Microbiology, Neuroscience, Nutrition Science, Pathology and Pathophysiology, Pharmacology, Physiology, Social Sciences, Behavioral Science, and Health Systems. Health and developmental issues across nations and cultures that require collective (partnership-based) action are highlighted. The course is taught through digital modules, on-site exposures to patients, health systems, and communities, and distance mentoring sessions. All students complete a core of digital modules and assessments, plus modules that are site-specific.

IDIS 5620. ISC: Precision Cancer Medicine. Precision medicine is the tailoring of patient therapy based on pharmacogenetic biomarkers that predict the likelihood of drug response or risk of adverse events, and highlights the importance of foundational science translation in improving patient outcomes. Although precision medicine can be applied to a number of diseases, oncology, arguably, sits at the forefront. Over the last decade there has been an increase in the understanding of cancer molecular drivers and based on this information, gene mutation-specific inhibitors have been successfully used in the clinic that target only sub-populations of patients with particular tumor genotypes. As a result, there is a need for oncologists to have an appreciation of the fundamental molecular biology underlying the patient’s tumor to effectively translate tumor genotype to precision patient care. This course will provide a unique experience in oncology where medical and graduate students work together to explore the molecular drivers of cancer and how that information is translated into targeted cancer therapies. Foundational science topics will include anatomy, physiology, histology, biochemistry, cell biology, genetics, molecular biology, immunology, pathology, radiobiology, and toxicology. Students will explore the concepts of oncogenic addiction, acquired resistance to targeted therapy, immunotherapy, tumor heterogeneity, and drug discovery through seminars, team-based learning, and case-based learning activities. The information learned will be used as a platform to describe how molecular changes are detected in the laboratory and leveraged in the clinic for personalized patient care. Students will select 3 of the following clinical settings for their clinical experiences: medical oncology, pediatric oncology, radiation oncology, surgical oncology, genetic counseling, pathology, and interventional oncology. Students will examine the multidisciplinary teams necessary in the care of cancer patients and the benefits of and challenges that precision medicine offers to oncologists through participation in tumor boards. Students will also have the ability to pursue their own interests in oncology through individualized projects.

IDIS 5621. ISC: Cardiovascular Disease. The course will expose the student to a broad range of cardiovascular diseases, focusing on foundational science as well as clinical topics that are applicable to students going into any specialty in which they will care for patients with cardiovascular diseases. Foundational science topics will include cardiovascular physiology and hemodynamics, electrophysiology, anatomy, histology, and pharmacology. All students will participate in a core series of didactics and workshops, but will be allowed to choose clinical experiences in cardiology, cardiothoracic surgery, vascular surgery, and cardiothoracic anesthesia. Clinical care will occur in a variety of settings including the wards, intensive care unit, operating room, outpatient clinics, and diagnostic laboratories. The course will provide flexibility to allow the interested student to have experiences in at least two clinical specialties. In addition, the curriculum is designed to encourage teamwork and knowledge sharing through interactive conferences and work groups.

IDIS 5622. ISC: The Skinny on Obesity—What Every Physician Should Know. Rates of obesity are rising all around the world and, as physicians we confront it daily regardless of our specialty. Whether clinicians or surgeons, general practitioners or specialists, pediatricians or internists, researchers, educators, administrators, public health professionals and even in our own families and circles of friends, the issue of obesity will be a near daily encounter. For most of us, obesity management will not be the primary focus of our job, but we can still play a key role in the prevention and care of unhealthy weight and its comorbidities. This course is designed for 3rd and 4th year medical students in an immersion format, combining mentored clinical experiences with additional organized learning opportunities. It is four weeks in length, offered at 5 points during the academic year, and incorporates up to eight students in each offering. In this course students will have the opportunity to prepare for how they can effectively address obesity in their anticipated area of practice. They will have the opportunity to participate in a variety of interdisciplinary patient care settings, which range from general to subspecialty, from medical to surgical, and from clinical to research to community. Through these clinical experiences and additional learning activities, students reinforce their knowledge of this disease, build skills in its management, and contribute to the prevention and treatment of obesity.

IDIS 5623. ISC: Getting Hooked—Addiction. Addiction is a highly prevalent, chronic brain disease that affects nearly every organ system in the body. A leading cause of morbidity and mortality, addiction is preventable and treatable, but only about 10% of those affected receive appropriate treatment. Patients with problems related to addiction may present for care in any setting across the health care system. It is therefore essential for all physicians to be well versed in the basic principles of addiction medicine. This 4-week course will be an opportunity to synthesize the neuroscience of addiction with clinical skills in assessment and treatment of addictive disorders. The primary goals of the course are to train future physicians: to recognize addiction as a chronic brain disorder; to effectively screen for substance use disorders in varied clinical settings; to treat or refer patients for specialized treatment as indicated; and to consistently approach patients with addiction with compassion and respect. In addition, this course serves as an opportunity to return to the foundational medical knowledge underlying the pathophysiology and treatment of addictive disorders and integrate this knowledge with clinical care. Key concepts of foundational medical knowledge will be reviewed including neuroanatomy, mechanisms of neurotransmission, pharmacology, epidemiology, and cell biology as they relate to addiction medicine. Students will use online modules and independent study for instruction on foundational medical knowledge and in-class time will be focused on discussion and integration of the material with clinical experience.

IDIS 5624. ISC: Diabetes Mellitus. Diabetes mellitus is a worldwide pandemic. One in twelve United States adults now suffers from the disease, and in the near future this number will likely increase to one in ten. Physicians in any specialty/subspecialty can expect to care for patients with diabetes, especially because patients with diabetes have higher rates of hospitalization, surgical complications, cardiovascular disease, infection and other morbidities. Therefore most, if not all, physicians in training should be competent in basic treatment of diabetes in the inpatient and outpatient setting and understand the current and future areas of research and medical practice as related to diabetes. This course is designed to teach our medical students how to care for the patient with diabetes mellitus, regardless of their specialty of choice, as well as to understand the basic science, social effects, bearing on public health, and human impact of this disease. Additionally, biomedical research in diabetes involves many fields of research such as cardiovascular disease, physiology, molecular biology, genetic medicine, cell biology, and neuroendocrinology. As a medical center whose goal is to train future researchers and leaders in medicine, Vanderbilt must offer experiences in diabetes patient care and research to its students. This immersion will include components of clinical training as well as an academic project exploring the limits of current scientific knowledge about diabetes care and treatment.

IDIS 5625. ISC: Immunity and Infections in the Immune-compromised Host. The care of patients with altered host defense is becoming increasingly complicated due to both the variety of immune-compromising therapeutic strategies and the emergence of multi-drug resistant pathogens. To provide excellent patient care and develop novel strategies in the care of immune-compromised patients, future physicians will require a solid background in basic immunology, an understanding of how both broad and targeted immune-based therapies increase infection risk, and knowledge in the diagnosis and treatment of complicated infections in these patients. In this course, immersion-phase medical students
will revisit foundational immunologic concepts from the RMK curriculum in the clinical context of transplant immunology with special attention given to understanding infectious complications of immunosuppression. The course will employ a variety of learning formats—including didactic lectures, case-based learning, team-based learning, journal clubs, and a group project—to fulfill learning objectives focused on understanding mechanistic immunology in clinically-relevant settings. Each student will spend the clinical portion of their month on a transplant (solid organ or hematopoietic) or infectious disease service while participating in focused learning activities described above. Foundational science topics will include microbiology, immunology, molecular biology, pathology, pathophysiology, and pharmacology.

IDIS 5626. ISC: Medical Imaging and Anatomy. Imaging is an essential component of the diagnosis and treatment of disease across all fields of medicine. Every physician interacts with medical imaging both in emergent and non-emergent settings. Therefore, each student requires knowledge of the utility, indications, acquisition, interpretation, limitations, and risks of medical imaging. Furthermore, it is crucial that physicians understand how imaging affects patient care and management and how it fits into the larger health care delivery system. This course will strengthen and expand upon prior learning in anatomy, embryology, pathophysiology, neuroscience, and pathology and introduce students to radiobiology and radiation effects, imaging physics, imaging ethics, radiologic pharmacology, and biostatistics. The course will consist of a two week “general” portion for all students and a two week “selective” portion in one of the following: neurologic imaging, cardiothoracic imaging, body imaging, or musculoskeletal imaging (limited space for each selective). Self-paced didactic podcasts and case series as well as live lectures, small group discussions, and student presentations will accompany clinical exposure to medical imaging in diagnostic, interventional, therapeutic, and operative settings. Additionally, students will participate in anatomy and pathology labs and will learn and be evaluated in basic ultrasound scanning technique. After this course, students will feel confident with key anatomy, be able to make several “do-not-miss” imaging diagnoses, and will be able to use imaging more safely and appropriately.

IDIS 5627. ISC: Injury, Repair, and Rehabilitation. In the U.S., injuries are the leading cause of death among persons ages 1-44 years of age, which results in more deaths than non-communicable diseases and infectious diseases combined. In this course, students will be exposed to the continuum of injury, repair, regeneration, and rehabilitation through the multidisciplinary viewpoints of emergency medicine, trauma surgery and associated surgical subspecialties, such as anesthesia, hematology and transfusion medicine, physical and occupational therapy and speech-language pathology. Students will spend portions of their clinical experience on the trauma service supplemented by rotations through rehabilitative, recovery, and palliation settings. Didactics will focus on shock, hemostasis and thrombosis, wound healing and regeneration of skin, bone and nerves, nutrition, acute and chronic pain management, speech-language pathology, age and co-morbid factors, brain injury, case-based learning across the continuum from acute to long-term recovery, as well as palliative care and death. Integrated foundational sciences are anatomy, epidemiology, ethics, immunology, implementation science, neuroscience, nutrition sciences, pathology, pathophysiology, pharmacology, radiobiology, social sciences, system sciences. Following experiential anatomic learning and practice, successful students will obtain four-year American College of Surgeons Advanced Trauma Life Support (ATLS) certification (except in section 6, when students will audit the ATLS course but not receive certification), as well as audit the Advanced Surgical Skills Exposure for Trauma (ASSET); both courses are coordinated using the facilities of the Program for Advanced Anatomy and Simulated Skills (PASS) and the Center for Experiential Learning and Assessment (CELA). This course will serve as a prerequisite to the Advanced Clinical Experience in Trauma.

IDIS 5628. ISC: Infectious Diseases. A WHO report warns that infectious diseases are spreading more rapidly than ever before and that new infectious diseases are being discovered at a higher rate than at any time in history. This elective is for students with an interest in learning more about how to diagnose and treat patients with infectious disease. Students will also learn how to use antibiotics appropriately and manage the complications of HIV and other chronic infections. The diversity of patient population will afford the student a breadth of experience in evaluating and managing patients with infectious diseases. In this clinic-driven experience, students are placed in a series of 3 week-long clinical experiences in various settings including inpatient, outpatient and laboratory medicine and are introduced to key topics and concepts in infectious diseases including symptoms, diagnosis, treatment, vaccines, and antibiotic stewardship. Methods to establish an etiologic diagnosis and rational use of antibiotics are emphasized. Foundational science topics include Epidemiology, Immunology, Microbiology, Virology, Pathology and Pathophysiology. The course is taught through online modules/lectures, clinic exposures to patients, team-based learning, and case presentations.

IDIS 5629. ISC: Sexual Health and Medicine. This course will vastly deepen students’ knowledge of sexual medicine and reproduction, focusing on the foundational science as well as clinical experiences that will provide students with the knowledge they need to care for patients of all ages. Students will pursue these topics far deeper than what is taught in second year clinical clerkships. Foundational science topics will be addressed in a series of team based learning activities that will integrate foundational science with relevant clinical experience. This course will integrate the anatomy, physiology, pathophysiology and pharmacology of sexual function and reproduction with the clinical skills necessary to interview and assess patients in these areas of medicine. Students will become familiar with a core set foundational published literature and pursue one area more deeply leading to a brief paper. At the completion of this course, students will thoroughly understand the mechanisms of sexual function and reproduction and should be able to assess sexual development, sexual dysfunction, and fertility and to develop an appropriate and sensitive treatment plan. Students should be able to approach patients about the sensitive topics of sexual health, function, identify and reproduction with knowledge, compassion and cultural sensitivity.

IDIS 5630. ISC: Healthy Aging and Quality Dying. Regardless of specialty choice, all physicians will encounter aging and death among their patients, family members, and selves. In the Healthy Aging and Quality Dying ISC, students will take care of both aging and dying patients in a variety of settings ranging from inpatient geriatric wards, outpatient geriatrics primary care clinics, nursing homes and assisted living facilities, and selected subspecialty settings. Didactics will delve into the foundational sciences of the epidemiology of aging, the physiology of aging and its clinical implications (e.g. falls, delirium and cognitive impairment, immune senescence, drug selection/dosing), communication skills, ethics at the end of life, systems-based care, and behavioral sciences in order to answer meaningful clinical questions. By expanding knowledge in these foundational sciences through small group discussions, case studies, and simulation exercises, students will be better equipped to slow down the aging process of their patients, prevent iatrogenic events in older adults, and improve quality of life based on what is most important to their patients.

IDIS 5631. ISC: Emergency Care: Cell to System Science. Regardless of one’s chosen specialty, all physicians interact with the emergency department (ED)—maybe as a specialist on call or as a primary physician referring patients to the ED. The Emergency Care ISC will bring you from the cellular level to the system level. By delving into core pharmacologic principles you will develop an approach to the care of an acutely poisoned patient. Through task trainers and cadaver based procedure labs you will deepen your knowledge of procedural anatomy and perform emergency and resuscitative procedures. Additionally, by learning the physics of ultrasound, you will be able to enhance your musculoskeletal exams and perform ultrasound guided procedures while analyzing the cost and safety benefits of point of care ultrasound. All physicians need to work as part of a team. The ability to lead and function in a team is even more essential in high-stakes situations, such as managing a mass casualty incident. You will explore the core concepts of teamwork and apply them to the evaluation of acutely ill or injured patients. Finally, the ISC will deepen your understanding of systems in emergency care and the role of the ED in the health care system and the hospital. Students will have the opportunity to observe at the Vanderbilt Communications Center, ride on Nashville Fire ambulances, work shifts in the adult and pediatric emergency departments, perform bedside ultrasounds on ED patients during dedicated ultrasound scanning shifts, and participate in multiple simulation experiences. This course meets the acute care requirement.
IDIS 5632. ISC: Health Systems Science in a Working-Learning Health System. In this course interprofessional student teams participating in a working-learning health system (WLHS) will gain experience managing high risk, complex panels of patients while advancing knowledge in health systems science, social and behavioral determinants of health, and continuous quality improvement. In the WLHS student teams provide comprehensive longitudinal care to patient panels through direct care and care navigation across multiple settings, including clinic visits, communicating with inpatient services if the patient is admitted, home visits, work or school visits, and ER visits (during daytime hours). Each patient will have a care plan that will guide the care that the team provides. Depending on the needs of the patient, the team will conduct care navigation by contacting the patient approximately every one to two weeks to check on the status of the patient and determine if the team can help facilitate services to the patient. Teams will conduct ongoing quality improvement measurements to ensure that the care being provided is having a positive impact on patients. Formal course work topics will include health systems science and the health care system, socio-ecologic and structural determinants of health, health policy and health economics, organizational management, public health, quality improvement processes, and interprofessional practice. Students from Medicine, Nursing, Pharmacy and/or Social Work will be members of the student team. With approval from the course director, students can choose to work in one of four health systems, including two adult clinics (Mercury Courts and Familiar Faces) and two pediatric clinics (General Pediatrics and Pediatric Pulmonary Medicine). This course will meet the primary care requirement (except Pediatric Pulmonary Medicine). We believe that this innovative approach to workplace-based learning will enable interprofessional student teams to positively impact the health of their patients while decreasing resource utilization. This course is the first in a series of three courses that students can complete in the working-learning health system. The second rotation in the WLHS series is the ACE in Population Health in a Working-Learning Health System.

IDIS 5633. Learning Communities IMM. The Learning Communities-Immersion course builds on prior efforts addressing student professional development that occurring in earlier Learning Communities courses. Students continue to explore vital issues of their development as professionals with further readings and small group discussions within the nurturing College environment. The sessions are designed in a developmentally appropriate manner to maximize discussions and learning based on the clinical experiences of the students. The Learning Communities-IMM course provides the environment for students to focus on further honing their own skill sets regarding ethics, cognition and leadership prior to graduation and the beginning of residency training.

IDIS 5640. ACE: Population Health in a Working-Learning Health System. This course is the second in a series of courses that students can complete in the three-course working-learning health system (WLHS) series. The primary care requirement (except Pediatric Pulmonary Medicine) is similar to the science of managing high risk, complex panels of patients while advancing knowledge in health systems science, social and behavioral determinants of health, and continuous quality improvement. In the WLHS student teams provide comprehensive longitudinal care to patient panels through direct care and care navigation across multiple settings, including clinic visits, communicating with inpatient services if the patient is admitted, home visits, work or school visits, and ER visits (during daytime hours). Each patient will have a care plan that will guide the care that the team provides. Depending on the needs of the patient, the team will conduct care navigation by contacting the patient approximately every one to two weeks to check on the status of the patient and determine if the team can help facilitate services to the patient. Teams will conduct ongoing quality improvement measurements to ensure that the care being provided is having a positive impact on patients. Formal course work topics include population health, public and community health, epidemiology, community resources for patients and families, socio-ecologic and structural determinants of health, quality improvement processes, and interprofessional practice. Students from Medicine, Nursing, Pharmacy and/or Social Work will be members of the student team. With approval from the course director, students can choose to work in one of four health systems, including two adult clinics (Mercury Courts and Familiar Faces) and two pediatric clinics (General Pediatrics and Pediatric Pulmonary Medicine). We believe that this innovative approach to workplace-based learning will enable interprofessional student teams to positively impact the health of their patients while decreasing resource utilization. The third and final course in this series is the ACE in Panel-based Care in a Working-Learning Health System.

IDIS 5641. ACE: Panel-based Care in a Working-Learning Health System. This course is the third and final that students can complete in the working-learning health system (WLHS) series, and the clinical experience is similar to the clinical experience in the ISC in Health Systems Science so students have the best opportunity for optimal longitudinal patient care. In addition, students who complete this ACE are eligible for QI advanced track credit (FHD requirement). As in the preceding two courses, interprofessional student teams in the WLHS will continue to gain experience managing high risk, complex panels of patients while advancing knowledge in health systems science, social and behavioral determinants of health, and continuous quality improvement. In the WLHS student teams provide comprehensive longitudinal care to patient panels through direct care and care navigation across multiple settings, including clinic visits, communicating with inpatient services if the patient is admitted, home visits, work or school visits, and ER visits (during daytime hours). Each patient will have a care plan that will guide the care that the team provides. Depending on the needs of the patient, the team will conduct care navigation by contacting the patient approximately every one to two weeks to check on the status of the patient and determine if the team can help facilitate services to the patient. Teams will conduct ongoing quality improvement measurements to ensure that the care being provided is having a positive impact on patients. Formal course work topics will include panel-based care, advanced topics in clinical medicine and pathophysiology, leadership skills, socio-ecologic and structural determinants of health, quality improvement processes, and interprofessional practice. Students in this course will also be able to customize the curriculum to meet their individual goals and interest in the field of working-learning health systems. Students from Medicine, Nursing, Pharmacy and/or Social Work will be members of the student team. With approval from the course director, students can choose to work in one of four health systems, including two adult clinics (Mercury Courts and Familiar Faces) and two pediatric clinics (General Pediatrics and Pediatric Pulmonary Medicine). We believe that this innovative approach to workplace-based learning will enable interprofessional student teams to positively impact the health of their patients while decreasing resource utilization.

IDIS 5651. Learning Communities IMM Unit 1: Applied Ethics. Medical errors threaten the moral sense of self of the physician. All physicians commit errors, some of them costly in terms of increased patient morbidity and mortality while others are just nagging reminders of our professional limitations. Learning how to respond to one’s own errors in responsible and healthy ways, and considering how to best provide leadership through our response to others’ errors are important in practicing medicine successfully and maintaining one’s ethical equilibrium. This session will explore the ethical challenges and implications in addressing this developmentally important issue for becoming mature practitioners of medicine.

IDIS 5652. Learning Communities IMM Unit 2: Lifelong Learning. Change is ubiquitous in health care making continuous adaptation necessary for clinicians to provide the best possible care to their patients. Developing the capabilities of a Master Adaptive Learner will provide future physicians with strategies for learning in the health care environment and for managing change more effectively. The concept of a Master Adaptive Learner combines adaptive expertise with an approach to learning based on self-regulation. Learners will explore an evidence-based model for the Master Adaptive Learner that provides a shared language and scaffolding to facilitate exploration and conversation about both successes and struggles during the learning process.

IDIS 5653. Learning Communities IMM Unit 3: Situation Leadership and Diagnosing. All leadership situations are not equal. Trying to lead all followers in every situation in the same manner does not demonstrate effective leadership. Being able to target leadership style to the developmental level of the follower(s) improves the productivity of the follower(s)
while also eliminating frustration for all involved. This session will allow students to explore concepts related to the Situational Leadership II model and its application.

**IDIS 5654. Learning Communities IMM Unit 4: Problem Solving.** Physicians and leaders are both routinely called upon to solve difficult problems. The best physicians and leaders are able to move past the “easy” solutions to the “right” solutions. In this session, students will explore different approaches to problem solving and their importance to physicians and leaders alike.

**IDIS 5655. Learning Communities IMM Unit 5: Priority Setting.** Highly effective leaders are able to focus their energy and efforts on selected projects to allow for the maximum benefit, while avoiding being pulled in multiple different directions. Effective leaders are able to clearly articulate their guiding principles and focus that allows them to say “yes” to projects that align with their goals and mission, while saying “no” and avoiding projects that do not align. This session builds on the Time Management session during the LC-FMK course. Students will explore the impact of clearly set priorities and develop their own professional vision statements.

**IDIS 5656. Learning Communities IMM Unit 6: Change Management.** Most people hate change. People will often work very hard to maintain the status quo even in the face of mounting evidence that change is necessary. The most successful leaders are able to effectively guide their followers through periods of change, both large and small. Too often change efforts fail because all of the focus is on what to change without any explicit consideration and planning regarding how to manage the change. In this session, students will explore change management models from the business literature and consider applications to the medical arena.

**IDIS 5657. Learning Communities IMM Unit 7: Dealing with Ambiguity.** No one likes uncertainty, especially not physicians who often feel like they must have “all of the answers”. Ambiguity and uncertainty often lead to stress and decreased satisfaction among practicing physicians. Developing strategies to manage uncertainty are essential for physicians in their leadership as well as in their practice of medicine.

**IDIS 5658. Learning Communities IMM Unit 8: Leading and Managing Up.** Many individuals early in their journey to becoming leaders are confronted with the question “Is it possible to lead well when I am not the one in charge?” “Ninety-nine percent of all leadership occurs not from the top but from the middle of an organization.” There are well described characteristics and actions involved with being a good follower, as well as for “leading up” from a position lower in a leadership hierarchy. Becoming a good follower and developing the skills to lead from the middle can greatly impact an individual’s leadership success.

**IDIS 5701. FHD: Advanced Communication 1.** Students will build effective communication skills with patients through exploration of topics including health literacy, cross-cultural competence and use of technology in the clinical setting.

**IDIS 5702. FHD: Advanced Communication 2.** Students will learn effective communication skills for having difficult conversations, spanning the spectrum from professionalism conversations with colleagues to end-of-life and goals of care discussions with patients.

**IDIS 5711. FHD: Quality Improvement 1.** Students will analyze their clinical microsystem using systems-level tools such as fishbone diagramming and flowcharting, and identify an area for improvement.

**IDIS 5712. FHD: Quality Improvement 2.** Students will propose a change to their clinic microenvironment and enact that change, collect data and reflect on their results.

**IDIS 5713. FHD: Quality Improvement 3.** Students will understand the basis of sustaining change and will suggest next steps for continued improvement.

**IDIS 5714. FHD: Patient Safety.** Students will create virtual presentations of their projects to improve quality of care/patient safety from their clinical microenvironment. Students will discuss strategies for sustaining change and will suggest next steps for continued improvement.

**IDIS 5715. FHD: Quality Improvement and Patient Safety Advanced-track.** Students will demonstrate knowledge of the ability to analyze their clinical microsystem using systems-level tools, identify an area for improvement, then propose and enact a change, collect data and reflect on results. Students will also understand the basis of sustaining change and will suggest next steps for continued improvement.

**IDIS 5721. FHD: Interprofessional Education 1.** Students will learn about other professionals’ roles in patient care as well as the unique cultures, values, roles/responsibilities, and expertise of other health professions; will learn their scope of practice; and will learn how an interprofessional team works together to provide patient care. They will observe interprofessional teamwork within the medical center.

**IDIS 5722. FHD: Interprofessional Education 2.** Students will integrate knowledge of their own role and roles of other team members to appropriately assess and address health care needs of patients. They will work collaboratively with other team members, seeking out other professionals for consultations in order to formulate an interprofessional care plan for mutual patients.

**IDIS 5723. FHD: Interprofessional Education 3.** Students will recognize components of a functional effective team dynamic, including recognizing how their own uniqueness of experience level, expertise, culture, power, bias and hierarchy within the health care team contributes to effective communication, conflict resolution, and positive interprofessional working relationships.

**IDIS 5731. FHD: Health Policy: Institutions, Politics, and Advocacy.** Students will be introduced to key features of the U.S. health care system as well as how to assess the performance of this system along multiple dimensions of importance. The course will supplement student knowledge about the social determinants of health and previous patient advocacy experience with insights about the key institutions, processes and stakeholders that shape health policy. Students will be exposed to the legislative and political histories of recent health reforms and use skills gained in the course to collaborate with colleagues in advocating for positive change.

**IDIS 5732. FHD: Health Care Economics.** Students will learn and apply core principles of health care economics to understand the state of the U.S. health care system and future policy directions related to market forces, medical spending, and population health. The covered material will first unpack what features make health care markets special and in turn more complex relative to other goods and services. These insights will then be used to understand the incentives, challenges and landscape of contemporary health insurance and payment models for medical care. This discussion will span public and private payers as well as patient and provider behavior under different financing models and incentive structures. The course will finish by integrating these lessons with recent policy activity related to the Affordable Care Act.

**IDIS 5733. FHD: Public Health and Prevention.** Students will learn principles of population health including epidemiology and population-focused chronic disease management. Students will be given an individual or population-level problem and asked to propose an appropriate solution and to disclose evidence (e.g., results from existing randomized clinical trials or community interventions, or data from observational studies or the student’s individual patient panels) used to arrive at a given solution. At the end of the course, students will have learned about many sources of data and key metrics (e.g., hazard ratios or odds ratios) used to interpret results from population studies, and should be able to apply public health principles in the prevention and management of disease conditions at the population level.

**IDIS 5741. Intersession 1: Foundations of Health Care Delivery.** Intersession 1 Course Description: Intersession 1 serves as an introduction to the Immersion Phase and teaches students details about population and community health, chronic disease management and prevention in addition to skills for addressing communication barriers in complex patient care interactions.

**IDIS 5742. Intersession 2: EPA Week.** This intersession is dedicated to providing additional preparation for the advanced patient care responsibilities in which students may engage in the fourth year. The focus is on “Core Entrustable Professional Activities for Entering Residency” as outlined by the Association of American Medical Colleges.
IDIS 5743. Intersession 3: Foundations of Health Care Delivery. Intersession 3 Course Description: Intersession 3 builds on student experience in Immersion Phase by preparing students for working in an interprofessional health care team and practicing advanced communication skills to deal with difficult patient conversations.

IDIS 5744. Intersession 4: Foundations of Health Care Delivery. Intersession 4 introduces students to the concepts of health care economics and policy issues pertinent to caring for patients in a large macrosystem, including details about the Affordable Care Act and payers such as Medicare, Medicaid, and private insurance.

IDIS 5755. Clinical Preceptorship Program—Foundations of Health-care Delivery (CPP-FHD). MAFP students will complete Advanced Communication (AC) 1 and 2, Interprofessional Education (IPE) 1, and Population Health and Prevention (PHP) by completing readings, online didactic modules, clinical assignments within the CPP course, and selected CELA experiences. Topics covered will include health literacy/numeracy, communicating medical errors, facilitating shared decision making, the health care professions, and population health. All requirements must be complete prior to graduation. Completion of the didactic material and project work will total approximately 16-20 curricular hours. Course will be listed on the transcript as part of the CPP and will be graded as pass/fail.

IDIS 5930. AE: Preparation for Internship. This course will provide students with essential knowledge and skills to enter internship (of any discipline) with confidence. Informed by interviews with residents and program directors, the curriculum will cover common clinical problems managed by interns and will review most frequently-used medications. Workplace challenges, advanced communication tasks and teaching skills will also be addressed. The course utilizes a variety of methods, including lecture, small group and panel discussion, as well as skills labs and simulation.

IDIS 6001. Research Immersion: Bench. Laboratory-based Research, addresses the mechanisms of disease and therapeutics. The questions that are addressed often result from the need to better understand the biology of disease or intervention and encompass both basic and applied methods of research. Basic science research is driven by the desire or curiosity for understanding in a scientific or medical realm, while applied research goes beyond understanding to solve problems. Laboratory-based research can include the traditional ‘wet lab’ types of research, involving experimental techniques with cells, tissues, biospecimens, or animal models, as well as devices, instrumentation, drug development, and computational research.

IDIS 6002. Research Immersion: Bedside. Clinical and Translational research is a broad area and includes research in human subjects, populations and communities, as well as laboratory-based research. Clinical research includes studies in human subjects including surveys, cross-sectional studies, case series, case-control studies, cohort studies, first-in-human, proof of principle, and all phases of clinical trials. Translational research can be divided into four categories ranging from "T1" (translation to humans), "T2" (translation to patients), "T3" (translation to practice) and "T4" (translation to populations). Clinical and translational projects often interact closely and/or overlap with other areas of research such as Molecular and Cellular Medical Research, Epidemiology Research, Community and Global Health Research.

IDIS 6003. Research Immersion: Community and Global Health. This approach engages communities locally and globally to hasten the adoption, integration, implementation and evaluation of population health policies and practices. Potential research in community and global health includes clinical practice and investigation, public health and biomedical science, health care delivery, basic and implementation science and community-based participatory research. This research addresses community-identified priorities and embraces health issues that disproportionately affect primarily, but not exclusively, underserved populations, including middle- and low-income countries and neighborhoods and foreign-born populations (immigrants and refugees). Areas of investigation include health risks or diseases, obstacles to achieving optimal health, socio-cultural, historical and clinical aspects of caring for underserved populations, barriers to diagnosis and treatment, and strategies/interventions that motivate patients to practice positive health behaviors.

IDIS 6004. Research Immersion: Epidemiology and Informatics. Epidemiology is the science of identifying and understanding the patterns and determinants or causes of disease in human populations. Epidemiologic methods are used in clinical research and public health studies and assist in study design, collection and statistical analysis of data, and interpretation and dissemination of results. Biomedical Informatics focuses on the storage, retrieval and use of biomedical information for problem solving and decision-making in health care settings. Research is applicable in all areas of health care ranging from developing, evaluating and refining the computer tools available to clinicians caring for patients, and using computer applications and techniques to assemble evidence about specific topics, to managing biologic or genomic information in ways that support discovery and guides basic science research.

IDIS 6005. Research Immersion: Ethics, Education, Policy, and Society. Ethics, Education, Policy, and Society (E2PS) studies include the ethical and social dimensions of medicine and provide understanding about how medicine both shapes and is shaped by the larger cultural and policy environments. Encompassing a broad range of disciplines in relation to medicine, including philosophy, economics, religion, anthropology, sociology and law, related studies can help foster professional competence and responsibility, while offering guidance to practitioners and policymakers working to improve the efficiency and quality of the health care system. Research projects might include historical inquiry in medicine, patients’ or physicians’ accounts of illness, along with ethical and legal aspects of health policies, technology, and genomics. Similarly, health policy studies can offer empirical insights regarding the potential impact of decisions by consumers, providers, and society by assessing policy changes or interventions on access, costs, or quality of health care.

IDIS 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

IDIS 6150. Special Research Study—VU. Each student arranges an independent study with a mentor and completes a period of research work. Approval required.

IDIS 6200. Special Study—Non-Clinical. Each student arranges an independent study with a mentor and completes a period of medically relevant work. Approval required.

IDIS 6300. Full-Year Research. Students enrolled in this full-year research course are participating in various research activities including Vanderbilt Medical Scholars, Howard Hughes Medical Institute Research, Sarnoff Cardiovascular Research Program, or Fogarty International Research Scholars Program. Approval required.

IDIS 6305. Full-Year Service Learning. Students enrolled in this year-long course are participating in an activity of medical service to the community. Approval required.

IDIS 7001. Research Immersion: AWAY. This course follows the descriptions for IDIS 6001-6005 except that, for specific circumstances, the student has been approved to complete their research project with a mentor at another institution. This is allowed only with approval of all of the following: Associate Dean for Medical Student Affairs, Assistant Dean for Physician-Scientist Training, the student’s Research Director, and agreement of non-Vanderbilt mentor.

IDIS 7100. AWAY ACE: Interdisciplinary. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

IDIS 7150. Special Research Study—Non VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

IDIS 7222. AE: Ethics in Health Care: Theological and Philosophical Perspectives. [MEDD cross-listing for DIV 7222] This course examines a broad range of theological and philosophical methods for dealing with ethical questions as they arise in contemporary American health care. We will read influential texts from Protestant and Catholic Christianity, Jewish thought, contemporary Anglo-American philosophy, as well as classic
texts from the virtue traditions. Our aim is to apply the teachings of these texts to a range of practical issues, including issues at the beginning and end of life, questions that arise in routine patient care, and major policy issues in health and health care. We will probe the dialectic between practice and theory, being attentive to their reciprocal influences. A major aim of the seminar is to gain critical purchase on the tools that various theological and philosophical traditions provide as guides to thinking and action, and to assess their uses and limits. A second major agenda is to become more critically aware of our own moral intuitions and assumptions.

Global Health

IGHM 5240. Foundations of Global Health. This course introduces students to key concepts, methods and implementation techniques, and ethical principles used in the field. Identifying and resolving ethical conflicts in patients, obtaining histories, and doing physicals and laboratory studies, and that it is amplified by reading and intensive contact with the students. This course is a requirement for the Global Health Certificate. First and second year. Spring.

IGHM 5241. Essential Skills in Global Health. This course introduces students to core research, field tools, assessment and implementation techniques, and ethical principles used commonly in the field of global health. Various theories and practices that are commonly used to analyze issues and intervene in global health are explored. A key objective of the course is to examine determinants of global health and development from an interdisciplinary vantage point. Health and developmental issues across nations and cultures that require collective (partnership-based) action are highlighted. The course is taught by an interdisciplinary faculty and external resource persons using didactic, interactive and practical elements of instruction. First and second year. Spring.

IGHM 5242. Informatics for Global Health Professionals. This course serves as an introduction to medical informatics with an emphasis on global health care settings. As global health bridges both patient care and public health, so informatics in this context covers both patient-based information systems and public health information systems. International cooperation on health information systems has resulted in both extensive knowledge repositories and a powerful set of tools and techniques that can be used by practitioners and researchers. The module consists of lectures with discussion and analysis as well as hands-on instruction with some software applications and electronic resources. This course may be taken as credit toward the Global Health Certificate. First and second year. Fall.

IGHM 5244. Ethics in Global Health. This course provides an overview of ethical issues and standards in global health, particularly with respect to ethics in international research. Its aim is to provide students in the health professions and others interested in global health with a framework in which to recognize, examine, resolve, and prevent ethical conflicts in their international work. Through readings, lectures and discussion, students will explore diverse historical and contemporary international perspectives on the concepts of ethics and health as well as formulating recommendations for prevention and resolution of ethical conflicts related to global health. This course may be taken as credit toward the Global Health Certificate. First and second year. Spring.

IGHM 5249. Case Studies in Tropical Diseases. This course will introduce tropical diseases and parasitology in a clinical case study format with student group leadership that is facilitated by faculty with substantial front-line tropical medicine training and experience. Written case protocols will be presented by faculty members and Infectious Disease fellows/ Internal Medicine residents who will lead an interactive discussion involving pathophysiology, clinical presentation, differential diagnosis, diagnosis and treatment. This course may be taken as credit toward the Global Health Certificate. First and second year. Spring.

IGHM 5250. Global Health Politics and Policy. Global Health Politics and Policy introduces core global health problems facing the world’s populations today and examines the efforts taken to improve health at a global level. It focuses on the social and political movements of global health issues and how these forces created and shaped global health policy both in the U.S. and among the G8 nations from 2000–2011. First and second year. Spring.

Medical Education and Administration

MADM 5750. AE: Students as Teachers. The goal of this course is to prepare immersion phase medical students to become effective teachers as residents. The course offers a longitudinal didactic program, bringing the cohort together throughout the year to discuss general teaching strategies, educational theory and to review educational literature (the need for flexibility in scheduling is recognized). This is combined with an opportunity to enhance proficiency in one specific teaching environment by participating in the delivery of a particular course or program in the general curriculum. Students will practice teaching skills, gain an appreciation for evidence-based teaching techniques, and receive mentoring and feedback from established educators.

Medicine

MED 5012. Physical Diagnosis. The introduction to clinical medicine course for second year students. Emphasizes interviewing skills, acquiring a medical database, and performing a comprehensive physical examination. Utilizes a mentor system with groups of four students assigned to two faculty tutors who will guide them through history taking, patient examinations, and write-ups. Includes lectures, practical sessions, and patient encounters. Second year.

MED 5012B. Physical Diagnosis B. Physical Diagnosis B

MED 5016. Diagnostics and Therapeutics. This required course is offered during the clerkship year of the curriculum. The goals of the course are to teach techniques in clinical decision making, with an emphasis on many factors that may impact the clinician’s approach to the presenting complaint, e.g., pretest probability, risks, and costs of studies; to give the students an understanding of the laboratory and radiographic tools used to work through a differential and arrive at a diagnosis; and to impart a basic understanding of treatments rendered for common disease processes that they will encounter. The full-time introductory segment at the beginning of the clerkship year will be followed by weekly exposure through the year to online modules and small group activities that delve into specific presenting complaints with explicit discussion of how the clinician works through each of these clinical problems and treats the final diagnosis. Foundations of Clinical Care phase.

MED 5020. Medicine Core Clerkship. Second-year medical students participate in an eight-week, inpatient clinical clerkship under the aegis of the Department of Medicine, utilizing the clinical services of the Vanderbilt and VA hospitals. It is believed that learning is most vivid through direct experience with patients, obtaining histories, and doing physicals and laboratory studies, and that it is amplified by reading and intensive contact with members of the teaching staff and house staff. Students are given considerable responsibility under close supervision of the teaching staff. Six weeks of the clerkship is devoted to inpatient experience. This is further divided into three rotations; one general medicine, one subspecialty medicine, and a third that may be either general or subspecialty. Each student is assigned to a faculty/resident team and functions as an apprentice physician with graded responsibility for the evaluation and management of patients admitted to the medicine service. Students participate in clinical and teaching activities of the service, including daily attending rounds, morning report, noon conferences, Grand Rounds. Students receive student directed curricular content in the form of weekly core lectures, weekly “chalk talks” and clinical case conferences. In addition, students meet on a regular basis with an assigned Master Clinical Teacher to undergo supervised histories, physi- cals, and presentation with directed feedback and coaching.
MED 5302. Cardiovascular Physiology. Students will review cardiovascular physiologic principles in the setting of a high volume clinical cardiac MRI lab. Students will have the opportunity to interview patients, auscultate cardiac murmurs, review relevant records such as ECG/blood pressure measurements/heart rhythm strips; and then correlate physical exam findings and patient history with high resolution MRI imaging in a wide variety of cardiovascular pathologies. The cardiac MRI lab reviews an average of 6-8 cases a day, with cardiac conditions ranging from normal findings; atrial fibrillation; ischemic, non-ischemic, and hypertrophic cardiomyopathies; congenital cases (both pre- and post-surgical); pulmonary hypertension; cardiac transplant; stress testing; and cardiac valvular diseases. A relevant cardiovascular physiologic principle will be reviewed at the beginning of each day. The physiology concepts to be reviewed will be selected depending on significance to the cases on the MRI schedule. At the conclusion of this fun and engaging two-week elective rotation, students will have reinforced their knowledge of cardiovascular physiology by combining a review of the pertinent concepts with clinically relevant and patient-oriented cardiovascular imaging cases. The combination of concept review applied to real time clinical cardiovascular imaging will strengthen the knowledge of cardiovascular physiology in a unique and unforgettable way. This elective course will provide a unique and compelling preparation for the cardiology intern year.

MED 5304. Integrative Medicine. Students in this two-week elective will participate in helping patients develop and implement treatment plans for lifestyle and behavior change through the Vanderbilt Center for Integrative Health (VCIH). The VCIH cares for the whole person—mind, body, and spirit. Using the resources of the clinic, including health coaching, the students will develop their own personal plan for wellness. They will also learn the management of chronic pain and complex chronic disease working with a multi-disciplinary team. This will include exposure to clinical consultations (medical and acupuncture), therapeutic movement classes, chronic pain skills groups, and group nutrition coaching. Students will also participate in a weekly multi-disciplinary case conference. At the conclusion of the elective, students will be able to take an integrative medicine patient history with emphasis on the patient’s perspective and experience of disease/illness and relevant psychosocial history; identify and describe the patient’s capacity for behavioral change including barriers and readiness to change; assist patients in developing a personalized plan of care; explain integrative medicine treatment plans by citing appropriate medical literature; participate in inter-professional care to develop skills in interacting with other health professionals to develop integrative health plans for patients; demonstrate understanding of relevant neuroscience research including neuroplasticity, biomechanics, adaptive behavior patterning, biopsychosocial model, and treatment plans for patients with chronic pain (e.g. rheumatologic conditions, cancer, physical trauma, neurological disease) and frequent co-morbid psychological conditions (e.g. depression, anxiety, post-traumatic stress disorder); and explain the role of central sensitization in chronic pain.

MED 5306. Prevention of Ischemic Events. This two-week elective will cover the outpatient management of cardiovascular risk, ranging from diagnosis and appropriate control of co-morbidities such as dyslipidemia, hypertension, and diabetes, to the appropriate risk assessment strategy including non-invasive vascular evaluations, to tailored interventions addressing lifestyle and medications. At the conclusion of the two weeks, students will be able to appropriately identify and diagnose cardiovascular risk factors and co-morbidities and determine the strategy for full cardiovascular risk assessment, including performing non-invasive imaging tests, positioning the patient in a definite ten-year and lifetime cardiovascular risk category, and developing a management plan including proper lifestyle and pharmacologic interventions based on guidelines, evidence, and standard of care approaches.

MED 5308. Critical Care Medicine Basics. This course is an introduction to the field of critical care medicine. Students in this rotation are expected to become familiar with the physiology and pathophysiology of critical illness and the care of the critically ill patient. Additionally, they will be expected to integrate basic knowledge of pharmacology and physiology with clinical care and decision-making across two or more ICUs. An early exposure to the breadth of critical care is imperative for every physician in training, as throughout their career they will be expected to recognize life-threatening illness and injury and know the indications for providing care. Additionally, it is important to know the long term sequelae associated with critical illness and the socioeconomic of critical care. The students will be expected to attend ICU rounds and to follow the care of 1-2 patients assigned to them who are admitted to the ICU. In addition, they will be assigned to select faculty daily to present their patient. This will require them to understand the physiology and pathophysiology of the disease process to present a working differential diagnosis. They will also be expected to attend daily teaching sessions with the select faculty based on a pre-determined schedule. This includes synthesizing information from the electronic medical record, the bedside nurses, the consulting physicians, and the primary team.

MED 5312. Clinical Rheumatology. This is an outpatient service rotation designed to immerse the student extern in the evaluation and care of patients with a wide variety of rheumatic diseases. Special emphasis is placed on the patients with rheumatoid arthritis and lupus; however, all of the inflammatory and degenerative connective tissue disorders will be seen and reviewed. There is daily contact with several rheumatologists as well as the entire staff of the Arthritis Center at Vanderbilt Hospital (physical therapy, occupational therapy, patient educator, etc.) The student will observe patient evaluations and treatment methods and will be expected to perform some new patient assessments. At the conclusion of the elective, students will know the most practical and cost effective means of efficiently planning evaluations and treatments. This rotation is especially valuable to students considering primary care and orthopaedics.

MED 5314. Introduction to Palliative Care. Students will rotate through Vanderbilt Medical Center under the supervision of palliative care specialists. Students will work with the entire multidisciplinary team during this rotation with the goals of learning to apply the fundamentals in pain and symptom management, communication at the end of life, care of the dying patient, and basics of hospice care. Students will rotate on the consultative services and the palliative care unit during the two-week block. Students will gain exposure to patients throughout the hospital from all disciplines of medicine assisting in symptom management, advanced care planning, and hospice. The medical director for palliative care at Vanderbilt University will supervise and evaluate the students on the basis of the six clinical core competencies as delineated by the ACGME. Creative restructuring will allow students to make modifications to the rotation to meet individual needs. At the conclusion of the elective, students will be able to gather data as it relates to palliative care; demonstrate use of an interdisciplinary team to optimize patient care; evaluate and manage common symptoms in palliative care; identify goals of care through communication with families and patients in order to develop a plan of care that includes the patient’s wishes, medical situation, and code status; recognize signs and symptoms of impending death; and identify different aspects of suffering in palliative care patients.

MED 5322. HIV Medicine. Students will get a comprehensive look at the care of HIV patients by experiencing in-depth the complexities of HIV in both the inpatient and outpatient world. The elective involves spending one week at the Vanderbilt Comprehensive Care Clinic (VCCC- Vanderbilt’s outpatient HIV clinic), followed by one week on the inpatient Rogers Infectious Diseases service (the inpatient service which serves the majority of HIV-infected individuals). Students will have the opportunity to take histories and perform physical exams, presenting their findings to the attending provider or nurse practitioner. Content will include lectures, readings, and small group discussions on ‘hot topics’ in HIV. Concepts such as AIDS in the global context, treatment-as-prevention, and pre-exposure prophylaxis will be addressed in these formats, with a focus on epidemiology, pharmacology, study design, ethical issues, etc. In addition, students will spend time with various members of the HIV care team, including an HIV pharmacist, dietitian, clinical pharmacy RNs, case managers, and the clinical trials team highlighting the multidisciplinary nature of HIV care with a focus on pharmacology, nutrition, adherence, psychosocial care, and clinical trials implementation. Students will attend case conferences and will round with the inpatient Infectious Diseases nurse liaison and case manager. At the conclusion of the two-week elective, students will be able to construct or formulate a history from someone living with HIV infection, with a focus on the important physical exam findings, social information, and laboratory values from each patient; describe basic pathogenesis
and basic virology of HIV infection; discuss fundamentals about HIV treat-
ment; demonstrate a familiarity with the evidence-based, multidisciplinary
approach to HIV care; and explain some of the recent breakthroughs in
HIV care and some of the challenges facing the epidemic from a global
perspective.

MED 5324. Team-Based Geriatric Care. In this two-week elective,
students will join a team of attending, resident, and interdisciplinary team
members on the Vanderbilt Acute Care for Elderly (ACE) Unit in the morn-
ings. Experiences will include diagnosis and management of geriatric syn-
dromes including falls, delirium, dementia, and transitions of care. Stu-
dents will become acquainted with several patients and present them on
rounds. Afternoons will consist of geriatric primary care and consult clinics
with exposure to geriatric medication management, chronic illness, and
home and community-based services. In the second week students will
round mornings with the VA Geriatric Evaluation and Management Unit
Team, following and presenting selected patients and contrasting VA
with Medicare resources. Afternoons will consist of VA Geriatric Consult
and Primary Care Clinics, including a new Patient-Centered Aligned Care
Team with a patient-centered medical home model. Relevant handouts
and orientation materials will be provided, and students will participate in
the ongoing Geriatrics and Palliative Care didactic series with rotating
residents. At the conclusion of the course, students will be able to perform
a functional assessment, contribute to an interdisciplinary team meeting,
appreciate the clinical decision tree concept while managing patients with
multi-morbidity states, and have an awareness of the array of community
and institutional resources required to successfully manage transitions of
care for frail elderly.

MED 5326. Health Promotion—Dayani Center. This two-week elec-
tive is for students interested in health education and health promotion in
primarily outpatient rehabilitation programs. Students will observe and
participate in the Cardiac and Pulmonary Rehabilitation Programs at the
Dayani Center. Additionally, they may elect to spend a portion of this elec-
tive in the areas of Physical Therapy, Lymphedema, Nutrition, and Medical
Fitness. The format of the elective is direct patient observation. Students
may observe graded exercise testing and discuss with staff. At the conclu-
sion of the elective, students will know the fundamental principles of health
promotion and understand lifestyle management of common cardiovascu-
lar diseases.

MED 5328. Clinical Medicine Sub-Specialties. In this two-week elec-
tive, students will work with sub-specialists in clinics of their choosing in
the Department of Medicine. Students will have the responsibility of evalu-
ating patients, presenting patients to the attending, and then devising a
management plan with the attending. Students are responsible for arrang-
ing the clinic half days (minimum 10 half days per 2 week period) with
attendings to be approved by the Course Director. At the conclusion of the
elective, students have an understanding of the outpatient presenta-
tion and management of sub-specialty patient problems, will provide an
efficient patient work-up, and will have familiarity with the care provided to
patients in the outpatient clinical setting.

MED 5332. Problems in Hematology. This 2 week elective will offer
students an introduction to some unique problems that are often encoun-
tered in hematology and the principles of how they are managed. The list
includes bone marrow failure states, thrombotic and hemorrhagic condi-
tions, transfusion medicine, and hematologic neoplasms including lymp-
phoma, leukemia, and myeloma. Students will spend one week on the
malignant hematology inpatient service during which they will be given
patients to follow and present during rounds. They will participate in for-
mulating a plan of care emphasizing hematologic issues including transfu-
sion needs, antibiotics, therapeutic options, prognosis survivorship, end of
life care and the role of palliation and hospice. Didactics will focus on the
diagnosis and management of patients with hematologic cancers. Stu-
dents will also have the opportunity to spend time in Hematopathology,
blood bank, and hematology subspecialty clinics of their choice ranging
from benign to malignant hematology and stem cell transplant. At the con-
clusion of the two-week elective, students will have a basic understanding of
some of the unique questions often asked in hematology. They will also
have a better understanding of what is involved in devising and recom-
mending a therapeutic plan from the hematology perspective.

MED 5336. Young Women's Health. This elective will offer students a
two-week rotation in the Adolescent and Young Adult Health Outpatient
Clinic at 100 Oaks with an Adolescent Medicine attending and residents.
This clinic has a patient population that is about 70% female and sees a
large number of visits for menstrual and gynecologic issues. Patients are
evaluated for primary and secondary amenorrhea, menorrhagia, dysfunc-
tional uterine bleeding, and dysmenorrhea. Patients are routinely coun-
selled on initiation of contraception and are screened for sexually trans-
mitted infections. Students will have the opportunity to observe patient
encounters with the resident and/or attending and then as they feel more
comfortable see the patient first and present them to the attending in order
to jointly form a plan of care for that patient. At the conclusion of the two-
week elective rotation, the student will be able to take a thorough men-
strual history and formulate and present a brief assessment and plan based on
presenting complaints/concerns. The student will also feel comfortable taking
a sexual history and become more comfortable with various contraceptive
options. In addition, the student will review the adolescent specific laws on
confidentiality as they pertain to young women’s health issues.

MED 5610. ACE: Clinical Nephrology. This experience is designed to
give the immersion phase student significant experience in practical clini-
cal nephrology and prepare him or her for future house staff training. Stu-
dents will participate in daily rounds with the nephrology attending, the
nephrology fellow, and the medical resident assigned to the Vanderbilt
Hospital nephrology service or the VA nephrology service. Patients with
various clinical disorders including fluid and electrolyte abnormalities, acid-
base disturbances, glomerular diseases, and disturbances of renal func-
tion, including acute and chronic renal failure, will be seen and discussed.
Students will have the opportunity to perform renal consultations and present
patients to the rest of the rounding team. Frequently, the nephrology ser-
vice is requested to perform emergency consultation which requires acute
hemodialysis or acute plasmapheresis. Students may participate in these
acute consultations, assist with acute dialysis catheter placement, and
develop an understanding of renal emergencies and their treatment.

MED 5611. AI: Medicine, VU. A student may serve as an acting intern on
the Vanderbilt or Nashville VA General medicine services, with direct super-
vision by an attending and upper level resident. Acting interns may carry
up to 6 patients and may perform up to 3 admissions and 2 ICU transfers
daily. Patients assigned will be selected for their teaching value, and the
student will be expected to function as a member of the team at a super-
vised intern level for patient management and communication with other
health care providers. This will include preparing the admission history and
physical examination, entering orders, writing daily progress notes, pre-
senting patients on daily work rounds, caring for a near intern-level patient
census and coordinating discharge planning. This format provides an
excellent opportunity to evaluate and manage patients with a wide variety
of interesting disease processes and allows the acting intern to take more
responsibility in the care of his/her patients in preparation for intern year.

MED 5613. ACE: Critical Care, VU. This course is a four-week expe-
rience in multidisciplinary critical care medicine from the perspective of
internal medicine. The student will be expected to fulfill much of the role of
a junior level house officer, but will be closely supervised by interns, resi-
dents, and a senior critical care fellow, as well as a critical care attending.
The unit is a very active critical care facility which manages a wide variety
of medical emergencies using extensive monitoring and support equip-
ment. The emphasis is on pulmonary disease, infection, and renal dys-
function, but covers all aspects of critical illness, including endocrinology,
nutritional support, cost containment, and ethical issues. Teaching rounds
are given daily, and these are supplemented with didactic lecture-discus-
sions several days each week. Fulfills the acute care course requirement.

MED 5616. AI: Medicine, VAH. This Acting Internship on the Veterans
Administration Hospital medical wards allows students to work in con-
cert with the house staff team (assistant resident, intern, and one or
two third-year medical students). The acting intern will be assigned new
patients each admitting day and will be responsible for their care under the
direction of the assistant resident. The acting intern’s patients will not be
worked up by the regular intern. The student will be expected to attend all
of the functions and keep the same hours as the house staff. This should
provide an intensive experience in ward medicine.
MED 5619. AI: Critical Care, VAH. This acting internship in the MICU/CCU at the Department of Veterans Affairs Hospital is intended to expose medical students to a variety of important diagnostic and management issues in critical care medicine. The student should have prior general ward experience in medicine and surgery. The student will function in the combined MICU/CCU as an acting intern under the supervision of a medical resident, a pulmonary/cardiology fellow, and both a pulmonary/critical care and a cardiology attending. The student will actively participate in both general medical intensive care and cardiac intensive care rounds. The student will have an every-third-night in-house call schedule and will work directly with residents and interns. Students will take primary responsibility for patient assessment, documentation and order entry. Students may have a higher patient census than in prior ICU rotations and will assume increasing responsibility for patient care as the month progresses. During the rotation, the student will learn how to evaluate complex critically ill patients and formulate diagnostic and therapeutic plans. The student will become familiar with the principles and techniques of invasive and non-invasive monitoring. Major areas which are stressed include cardiopulmonary pathophysiology, crisis management, ICU and CCU pharmacology, airway management and mechanical ventilation, fluid/electrolytes management, nutritional intervention, and ICU ethics. By the end of the rotation, the student should be comfortable in the initial assessment and treatment and ongoing care of the most common ICU/CCU admitting problems and will be prepared for residency ICU rotations. Fulfills the acute care course requirement.

MED 5620. ACE: Gastroenterology, VU. The adult gastroenterology rotation offers a broad experience in the evaluation and management of adult patients with gastrointestinal disorders such as inflammatory bowel disease, gastrointestinal bleeding, pancreatitis, jaundice, abdominal pain, the use of enteral feeding, and swallowing abnormalities. The rotation would include evaluation of hospitalized adult patients and rounds with the inpatient gastroenterology consultation service at Vanderbilt Medical Center. Students would function as a gastrointestinal consultant, participate actively in inpatient rounds, and participate in teaching conferences sponsored by the division. There would also be exposure to gastrointestinal endoscopic techniques throughout this rotation.

MED 5625. ACE: Endocrinology. This course is designed to give our medical students exposure to the myriad of endocrine disorders seen by the faculty in the Vanderbilt Division of Endocrinology, Diabetes and Metabolism. It is intended to give medical students the opportunity to evaluate patients with different endocrine disorders, with a focus on physical exam findings, laboratory data, and radiological data. In addition, medical and surgical management of these disorders will be taught. Didactics will supplement the clinical experience and include pathophysiology of these disorders. Both diabetes mellitus and non-diabetes endocrinopathies, including thyroid, pituitary, bone, calcium metabolism and adrenal disorders, will be incorporated into this course.

MED 5655. ACE: Geriatric Medicine. The intent of this course is to provide students with an advanced educational experience in geriatric medicine. Students will gain familiarity with multiple geriatric syndromes: polypharmacy, gait instability, dementia, frailty, pain management, pressure sores, incontinence, osteoporosis; appreciation for continuity of care across different levels of care; and the ability to differentiate between normal aging and disease processes. Students’ knowledge of ethical issues will also be enhanced including patient autonomy, driving, and elder abuse. Students will also be able to identify and use community resources effectively, assess and treat multiple geriatric syndromes, organize management of multiple acute and chronic diseases simultaneously, and communicate sensitively and effectively with older persons and caregivers.

MED 5680. ACE: Infectious Diseases. Students will participate as part of the inpatient infectious diseases consultation service for at least two weeks of their rotation. They will be active participants in the initial evaluation, management, and follow-up of patients on the consult service. They should gain competence in diagnostic skills and in the management of infected patients, including the choice and use of antibiotic therapy. Special emphasis will be placed on understanding the epidemiology, pathophysiology, and natural history of infectious diseases. Students will also have a comprehensive experience in the care of HIV patients by participating in both the inpatient and outpatient settings. This portion of the experience will involve spending time at the Vanderbilt Comprehensive Care Clinic (Vanderbilt’s outpatient HIV clinic) and/or the inpatient Rogers Infectious Diseases service (the inpatient service that serves the majority of HIV-infected individuals). While in these settings, students will spend time with many members of the HIV care team, including pharmacists, dietitians, clinical pharmacy nurses, case managers, and others to better appreciate the multidisciplinary care needed to address medical comorbidities, medication adherence, psychosocial issues, and other issues pertinent to HIV-infected individuals. Learning opportunities in the course will include live sessions in the form of core content lectures, grand rounds, and/or small groups; online lectures; and recommended readings. Core infectious diseases and HIV/AIDS topics will include antibiotic selection and pharmacology; skin and soft tissue infections; endocarditis; opportunistic infections; HIV antiretroviral therapy; and others.

MED 5691. AI: Critical Care Critical Care. During the acting internship in Critical Care Cardiology, students will actively participate in the management of patients hospitalized in the Cardiovascular Intensive Care Unit. Duties will include the management of patients with (1) cardiogenic shock and acute heart failure, (2) complicated myocardial infarction, (3) complex percutaneous coronary and valvar intervention, (4) pulmonary arterial catheters and continuous hemodynamic monitoring, (5) ventricular support devices, (6) mechanical ventilation, and (7) cardiac arrhythmias. The student will work closely with the on-call medical resident and CVICU fellow and be expected to write admission and daily progress notes and present patients followed on daily work rounds to the entire team. The rotation will provide a significant “hands-on opportunity” for medical students to participate in the management of critically ill patients. Students will be expected to assume the role of the intern, carrying multiple patients and accepting increased responsibility for their care in order to prepare them for residency. This will be a more robust experience than prior critical care rotations.

MED 5700. ACE: Shade Tree Clinical Service Learning. The Shade Tree Clinic Community Health Experience offers a profound and rich exposure to primary and specialty care medicine in a resource-limited setting at a sub-internship level of responsibility. This course is a longitudinal ACE during the Immersion Phase for senior medical students. The Shade Tree Clinic Community Health Experience is an opportunity to develop clinical case management skills in the context of complex social determinants of health. Students are exposed to community resources needed to provide holistic care to vulnerable patients. They also gain creative, critical thinking skills necessary to confront challenges faced in a resource-limited context. Participating students have the opportunity to (1) enhance clinical patient care skills, (2) mentor and teach junior students, and (3) participate in didactic/skill sessions for advancement of clinical, advocacy, and leadership skills. Students will be expected to schedule 20 clinic shifts throughout the course and complete a final project (or equivalent), which may include leadership and/or staff roles. Clinical skills and knowledge will be assessed incrementally throughout the course.

MED 5730. ACE: Cardiovascular Diagnostics. This course will emphasize the development of skills in EKG interpretation and cardiovascular physical diagnosis. In addition, students will become familiar with the full spectrum of cardiovascular imaging modalities. The aim will be to appreciate their relative strengths and weaknesses as well as indications, techniques, and interpretation. The student will see patients in consultation with cardiology faculty at Vanderbilt and the Nashville VA Medical Center. Regular bedside physical diagnosis rounds will be held with senior Vanderbilt faculty. The student will also be instructed in the use of a heart sound simulator which has been demonstrated to improve diagnostic skills. There will be didactic sessions on EKG interpretation and cardiovascular imaging (including stress testing, nuclear cardiology, echocardiography, coronary angiography, and cardiovascular MR). Finally, weekly conferences to attend include: Clinical Cardiology (2), Echocardiography, Nuclear Medicine, and Cardiology Grand Rounds.

MED 5735. ACE: Palliative Care. Students will rotate through VUMC, the VA Hospital, and community hospice agencies under the supervision of palliative care specialists. Students will follow their own patients and work with an interdisciplinary team (IDT). This opportunity will allow students to learn and apply the fundamentals in pain and symptom management, how to communicate at the end of life, care of the dying patient, and hospice criteria. Students will spend roughly two weeks with the VUMC...
consult service, one week at the VUMC Palliative Care Unit, and one week at the VA. They will also work several days with community hospice members, child life specialists, chaplains, case managers, social workers, and nurses. At VUMC and the VA Hospital, students will work with the inpa-
tient consultative team and see patients throughout the hospital from all
disciplines of medicine assisting in symptom management, advanced care
planning, and hospice information. During their time with hospice, they
will accompany members of the IDT on home visits and learn more about
their various roles in end of life care. The palliative care physicians and
nurse practitioners will supervise and evaluate the students on the basis of
the six clinical core competencies as delineated by the ACGME. Cre-
ative structuring will allow students to make modifications to the rotation
to meet individual needs.
MED 5740. ACE: Pulmonary Consult. This course consists of seeing all
pulmonary consultations at VU Hospital, presenting the cases to confer-
cences and rounds, participating in pulmonary laboratory testing, fiberoptic
bronchoscopy, and cardiopulmonary exercise testing, and attending joint
pulmonary conferences. Case mix includes chronic obstructive pulmonary
disease, pulmonary renal syndromes, vasculitis, sleep apnea, pulmonary
nodules, infectious and non-infectious pulmonary infiltrates.
MED 5760. ACE: Rheumatology. Time will be spent primarily in the rheu-
amatology clinic at the Vanderbilt clinic and the VA Hospital (VAH). Students
will have an opportunity to be involved in the consultation from the hospital
with the rheumatology team at VUMC and VAH. Students will have an expo-
sure to several clinics with different rheumatologists each day, and they will
observe patient evaluations and treatments. Materials for study will be given.
There will be an expectation from a student to perform patient assessment
especially in terms of history taking and physical examination focusing on
rheumatology. Students will have an opportunity to attend all rheumatology
conferences, in both clinical and research meetings.
MED 5780. ACE: Medical Oncology. This advanced clinical experience
will provide the student with a broad overview of clinical oncology. Inpa-
tient exposure will be centered at Vanderbilt Hospital, where the student
will assist in the evaluation of new oncology service admissions and new con-
sultations. The student will make morning rounds and present new cases
to the oncology attending. In addition to inpatient exposure, the student
can attend two to three outpatient clinics per week. During the rotation,
the student will also attend the Division of Oncology conferences at Vanderbilt.
MED 5785. ACE: Hematology-Oncology. The goal of this course is to
introduce students to the core concepts of hematology, how they are
applied to patient care in the inpatient and outpatient care setting, and
how various components including clinical hematology, hemopathology,
blood banking, and coagulation medicine interplay to provide comprehen-
sive hematologic care. Students will have 2 weeks of hands on experience
in the management of hematologic disorders in the inpatient setting. The
remaining 2 weeks will be spent in the ambulatory clinic setting, inpatient
consults and laboratory exposure.
MED 5790. ACE: Clinical Dermatology. This clinical experience will be
in the outpatient clinic setting and the inpatient consultation setting with
direct faculty interaction. The location of clinic assignments will be in the
VU Dermatology Clinic at Vanderbilt One Hundred Oaks and the Dermatol-
ogy Clinic at the Nashville VA Hospital. There will be participation in weekly
conferences specifically for the rotators on the clerkship. The didactic
lectures during the month will focus on the identification, treatment, and
management of common dermatologic diseases. The clinical experience
will reinforce the lectures plus give insight into the role of the dermatologist
as a consultant for less common and difficult to treat conditions.
MED 5825. ACE: Medical Ethics. This course is designed as a capstone
experience in ethics, building upon the ethics components in FMK and FCC.
The core activity will be participation in the activities of the clinical ethics con-
sultation service provided to Vanderbilt Medical Center by the faculty of the
Center for Biomedical Ethics and Society. Activities during this 4-week ACE
will include directed readings in areas related to the consult work, attend-
ance at conferences, lectures, case reviews and additional work in eth-
ics of special interest to the student’s future residency training. The course
will fulfill the immersion course requirement for the Certificate in Bioethics,
although being a candidate in the Certificate Program is not a requirement
for taking this course. Discussion with Dr. Joe Fanning, the Director of the
Clinical Ethics Consult Service is strongly recommended prior to enrollment.
MED 5970. AE: Fundamentals of Quality Improvement. The Fund-
amentals of Quality Improvement (QI) in Healthcare half-year elective
provides Immersion Phase students with an opportunity to gain founda-
tional knowledge of QI and patient safety principles in health care. Medi-
cal students will participate in an elective course offered to students from
the schools of Medicine, Management, Nursing, and Education that runs
weekly from January through April. The course will challenge students
to think in an interdisciplinary manner about models and team-building
strategies for leading QI initiatives in a variety of organizational settings.
Students will form interdisciplinary teams to complete a final group project.
Students will also complete the IHI Open School online certificate.
MED 6100. Special Clinical Study: Medicine, VU. Each student
arranges an independent study with a mentor and completes a period of
clinical work. Approval required.
MED 7100. AWAY ACE: Medicine. Each student arranges an indepen-
dent study with a mentor and completes a period of clinical work away
from Vanderbilt. Approval required.
MED 7150. Special Research Study: Medicine, VU. Each student
arranges an independent study with a mentor and completes a period of
research work away from Vanderbilt. Approval required.
MED 7200. AE: Global Health. This four-week AE is an extension of
the Global Health ISC and aims to provide clinical experience in the care
of patients in low- and middle-income countries (LMICs), most often in
resource-constrained environments. Students will assess the most com-
mon health problems encountered at the site, the usual treatment proto-
cols, and how management differs from that in the U.S. or other devel-
oped countries. Students will learn how treatment and treatment decisions
are influenced by local contexts, policies, and cultural components. In this
AE, students will mindfully and ethically draw on their ‘resourcefulness’ to
navigate the various constraints of working in resource-constrained set-
tings. The hospital or clinic site is arranged by the student and approved
by course director. Approval can be facilitated by Vanderbilt faculty
involvement at the site. Students may elect to combine clinical work with
language immersion studies (particularly Spanish). If the intended loca-
tion is on the State Department Travel Alert List, additional approval
will be required. Students are responsible for covering all of their personal
expenses associated with the course and travel, but small amounts of
funding may be available.

Neurology
NEUR 5020. Neurology Core Clerkship. The rotating students of the
third-year class are alternately assigned to two 2-week ([total=4 weeks) rotat-
bing blocks of clinical neurology inpatient and outpatient experience.
Stu-
dents are given direct responsibility for the evaluation and care of patients
under the supervision of house staff and faculty. This exposure is intended
to provide the students with an approach to patients with diseases of the
central, peripheral, and autonomic nervous systems and skeletal muscles.
At the end of the rotation, students will take the NBME exam. Departmental
recognition is given to the highest NBME score. Exposures to other areas of
neurology can be arranged; talk to the clerkship director. Third year.
NEUR 5315. Movement Disorders and Deep Brain Stimulation. The overall goal of this elective is to immerse students in the evaluation and
treatment of patients with movement disorders. Students will spend time
with these unique patients from diagnosis to advanced stages. The elec-
tive will include brief didactics on the most commonly followed disorders
including Parkinson’s disease and Essential Tremor. Clinical time will be
spent in the Neurology clinic diagnosing and medically treating patients.
Students will be involved in the selection of patients for surgical interven-
tion. In the operating room, student will participate in all stages of deep
brain stimulation (DBS) surgery from the Neurology, Neurosurgery, and
Neurophysiology perspectives. Students will assist with post-operative
DBS programming. Additional time will be spent working closely with
Neurosurgery in planning surgeries. Students may also attend the multi-
disciplinary DBS conference which occurs once a month. At the end of
the two-week rotation, the student will feel confident in the presentation, examination, diagnosis, and treatment options for patients with movement disorders. Students will be expected to demonstrate a focused history and neurologically focused physical exam and will be able to articulate the indication for DBS, expected benefit, and potential risks.

NEUR 5612. ACE: General Neurology. Students will participate in a four-week general neurology advanced clinical experience that will have a flexible schedule to allow students to pursue specific interests. The schedule will be individually tailored through discussion/planning with the ACE director and involve participation in the following venues: outpatient clinic, general inpatient neurology service and adult neurology consult service. Students may choose to spend all four weeks in one venue or put together a combination of two or three venues.

NEUR 5620. ACE: Stroke. Students will participate in a four-week stroke advanced clinical experience that will involve inpatient, outpatient and procedural activities. The main venue of participation will be the inpatient stroke service where students will be responsible for caring a census of patients (presenting on rounds), going to and assisting with stroke alerts, and participating in the education of clerkship students on the service. Students will also have the opportunity to go to stroke clinic and the angiogram suite to learn about and observe diagnostic angiograms and intra-arterial procedures. Students will also attend the weekly multidisciplinary cerebrovascular conference, and spend time with the Neuro ICU team. Students will be expected to stay for overnight call at least two times during the four-week rotation.

NEUR 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

NEUR 7100. AWAY ACE: Neurology. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

NEUR 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Obstetrics and Gynecology

OBGN 5020. OB/GYN Core Clerkship. Each member of the third-year class is assigned to the obstetrics and gynecology service for five-and-one-half weeks. Vanderbilt University Hospital. Each student will spend two-and-one-half weeks on the obstetrical rotation. While on the maternal-fetal service this will include daily attending rounds and involvement with the maternal-transport service. Students will also be assigned to the perinatal group practice service. In addition to being involved on labor and delivery, students will help manage obstetric patients who are followed in the Vanderbilt Clinic. Each student will spend two-and-one-half weeks on gynecology. Each student will spend one-half day per week in continuity clinic, one-half day in colposcopy clinic, and one-half day in clinical transaction project. Daily teaching rounds are conducted by the GYN oncologists. The general gynecology service provides exposure to the medical and surgical management of patients seen at the Gynecology Clinic. The two-week rotation at Baptist Hospital provides excellent exposure to operative gynecology and to gynecology in the private practice setting. In addition, students are encouraged to observe surgical cases performed by the reproductive endocrinology service. The five-and-one-half-weeks rotation provides a broad based introduction to the discipline of obstetrics and gynecology. Included in the rotation is a lecture series given by the faculty covering general obstetrics, high-risk obstetrics, gynecologic oncology, reproductive endocrinology, and general gynecology.

OBGN 5620. AI: Maternal Fetal Medicine. During this rotation, the student receives advanced experience in high-risk obstetrics designed to gradually provide the student with a sense of responsibility and ownership for the patients under his/her care similar to that of our first year residents. Students help to direct both the antepartum and postpartum care of patients with preterm labor, PPROM, and pregnancy-induced hypertension. By the end of the rotation, the student is responsible for daily documentation including admission/discharge/daily progress notes, supervised order entry, and patient cross-cover reporting to the resident team. The student is expected to be familiar with the main complications of pregnancy, be confident in delivering directed and concise patient assessments and treatment plans, and have mastered the mechanisms of normal labor and delivery. Specific learning activities include daily morning obstetrical teaching rounds; attendance at resident didactics; participation in resident OB emergency simulation training when available, and overnight call on labor and delivery suite. Learning resources include one-on-one interactions with the obstetrical house staff and attendings, access to current obstetrical texts and journals, and teaching conferences.

OBGN 5630. ACE: Maternal Fetal Medicine. During this rotation, the student receives advanced training in high-risk obstetrics at the student level. Students may help to direct either the outpatient antepartum or inpatient peripartum care of women with common complications of pregnancy, including preterm labor, pre-gestational diabetes, chronic hypertension, PPROM, and preeclampsia. By the end of the rotation, the student should be familiar with common complications of pregnancy and be confident in delivering directed and concise patient assessments and treatment plans. Students have the option of designing an inpatient or outpatient experience which will depend upon learning objectives identified during the intake interview with the course director. Inpatient learning activities include daily morning obstetrical teaching rounds and inpatient service responsibilities with the resident team. Outpatient learning activities include attendance in MFM return OB and consult clinics, with additional time spent in diabetes clinic, obstetrical ultrasound, and genetic counseling. This rotation will require four (4) overnight calls on labor and delivery suite and two (2) independent presentations on a topic of interest with your MFM preceptor who will be identified depending upon your area(s) of interest. Learning resources include one-on-one interactions with the obstetrical house staff, midwives, and MFM attendings, access to current obstetrical texts and journals, and teaching conferences.

OBGN 5635. ACE: Clinical Obstetrics. This course is designed to be a focused experience on labor and delivery to give students more experience in basic management of obstetric patients. This course will familiarize the student with the physiology of labor and delivery. Students will be expected to work with the team learning cervical exams, basic ultrasound assessment, and delivery skills. They will also work with the team in the operating room learning skills for cesarean delivery. The student will also follow postpartum patients with the residents and attendings. An individualized curriculum will be planned which will include experience on days and nights with the team on labor and delivery and in triage. The student will be expected to assist with teaching the FCC students on the rotation as well. The student should finish this experience with confidence to complete tasks required of an intern on their labor and delivery rotation.

OBGN 5645. AI: Operative Gynecology. Operative Gynecology seeks to integrate didactic and interactive teaching, consultative and inpatient management experience, benign gynecologic operative experience, and focused independent study to gain greater appreciation for and confidence in managing the following: 1) clinical presentation, 2) diagnostic evaluation, 3) clinical or surgical management, and 4) short or long term follow-up of common gynecologic problems. It also seeks to prepare the learner to function at the level of a Gyn intern prepared to competently perform core activities listed in the Learning Objectives.

OBGN 5655. ACE: Gynecologic Oncology. During this rotation, the student receives training in the management of gynecologic oncology patients. The student participates in the evaluation and treatment of patients, gaining experience in surgery, colposcopy, pathology, chemotherapy, and radiation techniques. The student will be primarily responsible for 2-3 inpatients at any given time under the direct supervision of the resident on service. By the end of the rotation, the student should be familiar with the staging of different gynecologic malignancies, common treatment modalities, and important prognostic factors affecting survival. In addition, the student will be exposed to the immediate postoperative care of the acutely ill patient. Specific learning activities include pre- and postoperative care of the oncology surgical patient, assistance in the operative cases on the service, and attendance in the private clinics of the oncology attending.
OBGN 5660. ACE: Female Pelvic Medicine and Reconstructive Surgery. During this rotation the student receives training and practical experience in the diagnosis and management of pelvic floor defects and dysfunctions. The student will participate in preoperative evaluation, surgery, and post-operative follow-up of operative cases. In addition, there will be exposure to conservation treatment including pelvic floor rehabilitation and insertion/management of pessaries. History and physical exam of pelvic floor defects are also emphasized.

OBGN 5665. ACE: Operative Gynecology, ACE: Operative Gynecology (description forthcoming)

OBGN 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

OBGN 7100. AWAY ACE: Obstetrics/Gynecology. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

OBGN 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a research project away from Vanderbilt. Approval required.

Orthopaedic Surgery and Rehabilitation

ORTH 5325. Pediatric Sports Medicine. Students will spend time with various attendings in the pediatric orthopaedic, sports medicine, and adolescent clinics at Vanderbilt. They will also attend the sports medicine fellows lecture series and a sports event if available during the rotation. They will be expected to read Hoppenfeld’s text, Physical Exam of the Spine and Extremities. Upon completion of the rotation, the students will be expected to understand the diagnosis and management of pediatric fractures, concussion, and overuse injuries. Students will perform a physical exam of the spine and extremities.

ORTH 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

ORTH 7100. AWAY ACE: Orthopaedics. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

ORTH 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a research project away from Vanderbilt. Approval required.

Ophthalmology and Visual Sciences

OPH 5320. Introduction to Ophthalmology. Students will join a team of attending and resident physicians on the Ophthalmology service at Vanderbilt Hospital. Ophthalmology involves working as a consultant and primary care physician to patients both in the hospital and in the clinics. Reasons for consultation requests vary, but common requests include retinal disease, glaucoma, infectious diseases, trauma, and congenital anomalies. There will be six choices of subspecialty services on which the student may rotate over the two weeks. These include retina, glaucoma, cornea, oculoplastics, neuro-ophthalmology/consults, and pediatrics. At the conclusion of the two-week elective, students will be able to take an ophthalmology history and physical examination, arrive at a diagnosis, and understand treatment plans. Additionally, students will have familiarity with evidence-based approaches to care and the role of an ophthalmology surgeon in a teaching hospital.

OPH 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

OPH 7100. AWAY ACE: Ophthalmology. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

OPH 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Otolaryngology

OTO 5310. Introduction to Otolaryngology. Students will join the attendings, fellows, and residents on the Head and Neck Division of the Department of Otolaryngology. This service provides surgical care for patients with benign and malignant tumors of the head and neck, including tumor resection and reconstruction, as well as airway reconstruction. It is a busy service which carries the largest inpatient census in our department. Students will see patients in the office and hospital setting, intraoperatively and post-operatively. Students will also have the opportunity to work with our speech pathologists and physical therapists as well. Students will participate in our weekly multi-disciplinary tumor board to better understand both surgical and non-surgical management of head and neck tumors. At the conclusion of the two weeks, students will be able to take a directed history, perform a basic head and neck examination, and observe and understand the basic surgical approaches to tumors of the head and neck. They will also understand basic reconstructive options for head and neck defects. Most importantly, they will understand the multi-disciplinary approach to patients with head and neck cancers.

OTO 5315. Introduction to Laryngology. The human larynx is a very complex instrument and one that enables us to communicate with each other through speaking and song, as well as protecting our airway from aspiration during deglutition. We recognize each other through our voices and our unique, individual sound helps to define who we are. Technological advances allow us to study the larynx real time in the office and help us to offer patients highly specialized, individualized treatments based on the results of these studies. In this two-week elective, students will participate in the management of patients with disorders affecting the larynx and upper aerodigestive tract, including dysphonia, breathing difficulties, and dysphagia. Students will work with a team of the attending, fellow, and resident physicians from the Vanderbilt Voice Center in both clinic and operating room settings. In the clinic, students will learn the specialized evaluation of the patient with a vocal, breathing, or swallowing complaint. Diagnosis and treatment of common laryngological disorders will be presented and discussed. The student will also interact with and observe the voice speech and language pathologists and vocal pedagogues that complete the multidisciplinary team of the Voice Center. These practitioners provide both diagnostic support and behavioral treatment for patients. Students will be exposed to diagnostic procedures, specifically indirect laryngoscopy and laryngeal videostroboscopy. In the operating room, students will observe endoscopic treatment of a variety of common laryngeal, upper airway, and esophageal disorders. These disorders may include benign vocal fold lesions, vocal fold paralysis, upper airway stenosis, and cervical esophageal stenosis. At the conclusion of the two-week rotation, students will be able to take a specialized laryngological history; perform a complete head and neck examination; discuss common disorders affecting the larynx, upper airway, and cervical esophagus; and describe the treatment of common disorders affecting the larynx, upper airway, and cervical esophagus.
and sinus disorders. Students will also observe the allergist/immunologist. At the end of the two-week rotation, students will be knowledgeable of the common presenting symptoms of nasal and sinus disorders, and the anatomy and pathophysiology of nasal, sinus, and skull base disease. They will be able to read sinus CT and MR scans, and will be able to present a case concerning the presenting symptoms and diagnostic factors of a case and the available treatment paradigms.

OTO 5335. Introduction to Neurotologic Surgery. Neurotology is a subspecialty of otolaryngology (ENT) that deals with the evaluation and treatment of disorders of the ear, including adult and pediatric hearing loss, intracranial tumors, vertigo, facial nerve disorders, and complex infections of the ear. The specialty is multi-disciplinary and interacts frequently with other otolaryngology specialists and faculty and staff in neurosurgery, neurology, audiology, speech and language pathology, deaf education, physical therapy, and others. Students will participate in all aspects of the diagnosis and management of patients with neurotologic disorders. In the operating room students will be able to participate in and observe complex procedures such as cochlear implants, acoustic neuroma surgery, tympanic membrane reconstruction, stapledectomy, mastoidectomy and eradication of the ear, and vestibular surgery. Students will participate as members of our cochlear implant team, learning basic and advanced audiologic testing, cochlear implant evaluations, team assessment and integration, surgery, and post cochlear implant evaluation. Students will be able to participate in the activation of the cochlear implant, seeing adults and children hear for the first time. At the conclusion of the two-week rotation, students will be able to perform a specialized ear history and complex head, neck, and neurotology exams. They will be familiar with the disorders of the ear, including infections, hearing loss, vertigo, tinnitus, and intracranial tumors of the ear including meningoma, acoustic neuroma, and facial nerve disorders; the systems-based practice involving multi-disciplinary care of neurotologic disorders, including working with the cochlear implant and surgical teams; surgical procedures involved with treating patients with complex otologic disorders; and the appropriate surgical set up, procedure, and equipment.

OTO 5340. Introduction to Facial Plastic and Reconstructive Surgery. Facial plastic and reconstructive surgery is an integral part of the training in Otolaryngology-Head and Neck Surgery. The face is the cornerstone of a person’s identity. Facial expression implies a revelation about the characteristics of a person, a message about something internal to the expressor. The goal of facial plastic and reconstructive surgery is to restore, maintain, or enhance a patient’s facial appearance. Students will participate in the management of patients with disorders affecting the face. Students will work with both attending and resident physicians from the division of Facial Plastic Surgery in both the clinic and the operating room. In the clinic, students will learn the specialized evaluation of the patient with congenital, malignant, traumatic, and medical conditions affecting various components of the face. Diagnosis and treatment of common facial disorders will be presented and discussed. Considerations of facial aesthetics will also be reviewed. In the operating room, students will observe treatment of a variety of common nasal, auricular and cutaneous disorders. These disorders may include facial fractures, nasal deformities, facial defects, and facial paralysis. At the conclusion of the two-week rotation, students should be able to take a specialized history pertinent to facial deformities; perform a complete head and neck examination; discuss common disorders affecting the nose, external ears, eyelids, lips, and facial skin; and describe the treatment options of common disorders amenable to facial plastic surgery.

OTO 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

OTO 7100. AWAY ACE: Otolaryngology. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

OTO 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Pathology

PATH 5310. Pathology as a Career. Physician practice in the field of pathology takes place within a diverse range of sub-disciplines under the general divisions of Anatomic Pathology (AP) and Clinical Pathology/Laboratory Medicine (CP). The goal of this elective is to offer an introductory experience whereby students can participate in and observe the daily activities of multiple practice settings in both AP and CP. Opportunities exist for exposure in the areas of surgical pathology, cytopathology, autopsy pathology, hematopathology, molecular diagnostics, transfusion medicine, clinical microbiology, and clinical chemistry, among others. Attendance at intradepartmental educational conferences and relevant multidisciplinary clinical conferences will be strongly encouraged. At the completion of the rotation students will have a working understanding of the general role the pathologist plays within the greater context of patient care and will have gained insight toward consideration of pathology as a potential career choice.

PATH 5620. ACE: Anatomical Pathology. This four week Advanced Clinical Experience is designed to provide in-depth exposure to the practice of anatomic pathology via a mixture of services and is an ideal way to gain additional insight into the field for both those students considering pathology as a career and those who plan to pursue clinical specialties which frequently make use of pathology services. Depending on specific student interest and service availability, the setting for this clerkship may include the sub-specialty-oriented surgical pathology service at VUMC, the general surgical pathology service at the TVHS VA Hospital, the cytopathology service at VUMC, the pediatric surgical pathology service at Monroe Carell Jr. Children’s Hospital and the autopsy pathology service at VUMC. Emphasis is placed on introducing the student to the methods of specimen processing, evaluation and diagnosis in anatomic pathology with a particular focus on the relationship that anatomic pathologists maintain with clinical colleagues in the context of patient care efforts. Opportunities will exist for students to see a range of specimen types from fine needle aspiration biopsies to multi-organ resections and full autopsies. Students will work closely with pathology residents and fellows and will participate in a variety of tasks including pathologist performed biopsies, intra-operative consultations, gross specimen evaluation and selection of histologic sections for microscopic review. Additionally students will preview microscopic slides and dictate draft reports for selected cases and will subsequently participate in case review, ancillary test ordering/evaluation and final case sign out with the attending pathologist. Students will be expected to attend the various intradepartmental educational conferences in anatomic pathology as they occur.

PATH 5630. ACE: Clinical Pathology. Clinical pathology (also known as Laboratory Medicine) includes diverse laboratory services that provide diagnostic testing for all areas of medical practice. Services include transfusion medicine/blood bank, clinical chemistry, special chemistry (including toxicology), hematology and urinalysis, special hematology (bone marrow and lymph node analysis), coagulation, microbiology, virology, molecular infectious disease, molecular genetics, cytogenetics, and immunopathology (including flow cytometry). The student may rotate in one or multiple labs with training individualized according to their interest and future plans. Training consists of a mixture of observation and both didactic and case-based learning. At the end of the rotation, the student will have an understanding of efficient use and interpretation of diagnostic and monitoring tests in the areas of the lab through which the student has rotated.

PATH 5650. ACE: Clinical Microbiology. Medical microbiology is the subspecialty of pathology concerned primarily with the laboratory diagnosis, treatment, and control of infectious diseases. Medical students with an interest in medical microbiology, pathology, or infectious diseases may elect to do a rotation in medical microbiology. Formal training in medical microbiology at VUMC is administered by the Department of Pathology, Microbiology, and Immunology and consists of an integrated program of experiential and theoretical education in the laboratory diagnosis and management of infectious diseases. The program is designed to provide concurrent training in the technical, mechanistic, consultative, managerial, administrative, and pedagogical aspects of clinical microbiology throughout the pathology residency period. Thus, medical students and pathology residents are placed in a learning environment that synthesizes the
spectrum of clinical microbiology precepts within the daily routines and
reinforces fundamental interconnections between clinical infectious dis-
eases, microbial pathogenesis, and laboratory diagnostic approaches.
Further harmonization of concepts in medical microbiology is achieved
via consistent, direct mentoring of trainees by program faculty, medical
student and resident participation in conferences covering relevant top-
ics in infectious diseases and diagnostic microbiology, and progressive
increases in trainee responsibility commensurate with experience. The
goal of individual rotations is to foster a detailed understanding by train-
ees of the biochemical, molecular, genetic, analytical, and engineering
principles of contemporary testing methodologies and link these insights
to the pathophysiology, clinical presentation, therapy, and prevention of
microbial diseases.

PATH 5860. AE: Forensic Pathology. Join the Nashville Medical Exam-
iner’s Office for a month-long elective in one of the most fascinating areas
of medicine, forensic pathology. Observe and participate in death-scene
investigations, autopsies, and courtroom testimony. Learn about the
important function a medical examiner’s office plays in the protection of
the public health of our community. This elective is not just for those who
are interested in pathology, but also for all medical students who want to
see how disease and trauma affect the human body. Prerequisite: Third
year core clerkships. Fourth year students only.

PATH 6100. Special Clinical Study—Vanderbilt. Each student arranges
an independent study with a mentor and completes a period of clinical
work. Approval required.

PATH 7100. AWAY ACE: Pathology. Each student arranges an indepen-
dent study with a mentor and completes a period of clinical work away
from Vanderbilt. Approval required.

PATH 7150. Special Research Study—Non-VU. Each student arranges
an independent study with a mentor and completes a period of research
work away from Vanderbilt. Approval required.

Pediatric Medicine

PED 5020. Pediatrics Core Clerkship. Each member of the third-year
class is assigned to Pediatrics for five and one-half weeks. Three and one-
half weeks are spent on the Vanderbilt Children’s Hospital inpatient pediat-
ractic wards. Students participate in all phases of diagnosis and treatment of
a wide variety of illnesses of children and infants. Two and one-half weeks
of the clerkship includes work in pediatric clinics or Meharry Hospital or
community sites. Besides teaching rounds on the wards and nursery, stu-
dent lectures are held three times a week. Grand rounds are held weekly
and chief resident rounds are held each Thursday.

PED 5310. Adolescent Medicine. Students will participate in an outpa-
tient Adolescent and Young Adult Health Clinic with residents and faculty.
The Adolescent clinic serves patients with a variety of health care needs
including primary care, acute care, sports medicine, gynecological and
contraceptive care, behavioral health, and eating disorders. Students will
have the opportunity to see patients first and then work closely with fac-
ulty members to develop a care plan. Students can anticipate working in
multidisciplinary teams and spending time with a variety of providers. Stu-
dents can also expect to participate in didactic and case based learning sessions throughout the
course. The goal of this elective is to familiarize students with the scope of adolescent health care. At the conclusion of
the two-week elective, students will be able to take a complete and con-
fidential psychosocial and gynecological history on adolescent patients.
Additionally, students should be able to perform a focused physical exam
and develop a patient plan of care in conjunction with the attending.

PED 5315. Pediatric Diabetes in the Clinical and Research Setting.
Students will join a team of attending and fellow physicians and scientists as
they learn about management and discovery in pediatric diabetes. The
management of diabetes in children occurs at the intersection of medical and
support services. The care is managed by physicians, nurses, social
workers, child life specialists, and psychologists. Within this intersection
of care, the team is also dedicated to improving the management of diabetes
through research. The goal of this short course is to introduce the stu-
dents to this intersection. Students will participate in the initial evaluation
and teaching of a patient with new onset diabetes, will be precepted in
diabetes continuity clinic, and will attend clinical visits with dietitians, social
workers, and psychologists. As an extension of this clinical exposure, stu-
dents will learn about clinical research by attending our clinical research
team meeting, receiving training in patient consent, and observing clinical
trial visits. Students will also learn about the basic science of diabetes
by participating in design, execution, and interpretation of research in the
lab setting. At the conclusion of the elective, students will understand
the presentation and management of diabetes through the contributions of a
diverse provider team, the impact of diabetes on children and their fami-
lies, and the opportunities for changing the course of diabetes through
research from bench to bedside and back.

PED 5325. Physiology and Pathophysiology of the Newborn. This
two-week elective will be scheduled for students who will be welcomed
to the Neonatal Intensive Care Unit on the fourth floor of the Children’s
Hospital. The course will be a mix of didactic talks and readings as well as
patient evaluations focused on the physiology and pathophysiology of
oxygen delivery and gas exchange. The student will learn the principles of
evaluation and treatment of a variety of cardiorespiratory disorders includ-
ing respiratory failure, hyleamine membrane disease, pneumonia, sepsis, vari-
ous congenital heart diseases, and congenital malformations. The student will
also be learning ventilation management and blood gas analysis and the
basics of fluid, electrolyte, and nutrition management. These physi-
ologic principles are universally applicable and not limited to neonatology.
At the conclusion of the elective, students will be able to list five patho-
physiologic mechanisms for hypoxic respiratory failure; interpret blood
gases determining alveolar minute ventilation, acidosis status, and ventila-
tory means to correct abnormalities; write fluid electrolyte and parenteral
nutrition orders demonstrating understanding of the reason behind includ-
ing each component; and will understand the basics of physical examina-
tion and evaluation of the newborn infant and correlate the observations
with the pathophysiology.

PED 5330. Pediatric Hematology-Oncology. Students will have a broad
exposure to pediatric hematology-oncology on this rotation. The rotation
is divided into two one-week blocks. Students will do one week each on the
inpatient pediatric hematology-oncology service and the outpatient
clinics. During the inpatient week, students will join a team of residents,
fellows, and attending physicians on the pediatric hematology-oncology
service at Vanderbilt Children’s Hospital. Students will attend rounds and
will see a broad range of both pediatric oncology and hematology diagno-
ses. Common reasons for oncology admissions are workups for possible
oncology diagnoses, new diagnoses initiating treatment, chemotherapy
administration, complications from treatment, and palliative care/death
and dying. Common reasons for hematology admissions are diagnosis and
management of bleeding disorders, workup for anemia and/or throm-
bocytopenia, and management of the complications of sickle cell disease.
During the outpatient week, students will attend all hematology and oncol-
ogy clinics in the outpatient setting. Clinic opportunities are vast and will
include exposure to general oncology for routine chemotherapy and sick
visits and benign hematology. New referrals will also be seen. Students
may also attend subspecialty clinics to gain a general overview of specific
diseases (e.g., brain tumors, sarcomas, hemophilia, and stem cell trans-
plant). At the conclusion of the two week elective, students will be able to
do a history and physical examination on an oncology patient in both the
inpatient and outpatient setting. Students will also be able to formulate a
differential diagnosis for a new patient referral, both in hematology and
oncology. Students will have an overall appreciation for the varied patient
populations seen in pediatric hematology-oncology from both the family and
the physician/medical team perspectives. Students will also have a
broad exposure to the field of academic pediatric hematology-oncology.

PED 5331. Pediatric Stem Cell Transplantation. Students will have a
broad exposure to pediatric stem cell transplant on this rotation. Students
will meet two-week rotation here includes both the inpatient and outpa-
tient settings. During the inpatient time, students will join a team of fellows
and attending physicians on the pediatric stem cell transplant service at
Vanderbilt Children’s Hospital. Students will attend rounds and will see a
patient at all stages of stem cell transplant (pre-, peri- and post) for broad
range of both pediatric oncology and nonsignificant diagnoses. Com-
mon reasons for admissions on this service are stem cell transplantation,
complications from treatment, and palliative care/death and dying. During the outpatient time, students will attend all pediatric stem cell transplant clinics. Clinic opportunities are vast and will include exposure to patients who are being considered for stem cell transplant, post-transplant sick visits, and hospital follow-up. New referrals will also be seen. At the conclusion of the two-week elective, students will be able to do a history and physical examination on a stem cell transplant patient in both the inpatient and outpatient settings. Students will also be able to formulate a differential diagnosis for presenting signs and symptoms and to understand which patients are considered stem cell transplant candidates. Students will have an overall appreciation for the varied patient populations seen in pediatric stem cell transplantation from both the family and the physician/medical team perspectives. Students will also have a broad exposure to the field of academic pediatric stem cell transplantation.

PED 5335. Obesity Across the Life Stages: Before Breast Feeding to Bariatrics. Obesity is a condition of high prevalence worldwide. Most medical providers encounter it or one of its many co-morbidities on a daily basis. Its etiology is complex, with risk and disease development beginning before birth and progressing across the lifespan. In this elective students will be exposed to the evolution of this disease across these life stages, highlighting clear opportunities for prevention and treatment. Students will participate in a variety of clinical settings, which range from general to subspecialty, and from medical to surgical. Through these clinical experiences and a core of didactics, students will learn key points of intervention such as maternal nutrition (obstetrics), breastfeeding (newborn nursery lactation consultation), obesity treatment (multidisciplinary pediatric and adult weight management clinics, bariatric surgery), and management of its co-morbidities (lipid and endocrinology clinics). At the conclusion of the two-week elective, students will understand how obesity evolves across the lifespan, identifying opportunities for prevention and treatment; how to perform an obesity-specific assessment of patients of all ages through history taking, physical exams, and data interpretation; and how the multidisciplinary nature of treatment options can be approached through interpersonal interactions with patients, families, and members of the clinical teams.

PED 5340. Electronically-Engaged Pediatric Family Consult. This elective involves working as a consultant to engage pediatric patients and their families in managing their health through information technologies. Students will work with a variety of pediatric providers in the inpatient, outpatient, and acute care settings. Consultations will focus on educating and supporting families with new diagnoses and chronic illnesses using mobile devices, the MyHealthAtVanderbilt patient portal, or other technologies to assist with disease monitoring or behavior change. With each new consultation, students will independently evaluate the patient and family, present the case to a multi-disciplinary team, explore technologies to address the information and disease-management problems, and work with the family to implement the proposed solutions. Students may also have opportunities to provide follow up from prior consultations and to participate in ongoing research studies of patient engagement through information technologies. At the end of this rotation, the student will have a familiarity with the roles of information technology in health and disease management, as well as the importance of literacy, numeracy, and computer skills in facilitating patient engagement.

PED 5345. Pediatric Cardiology. Students participating in this two-week elective will be exposed to the breadth of services offered by the medical and surgical teams caring for children with congenital and acquired heart conditions. Selected faculty members and at times senior cardiology fellows will provide didactic and clinical insight relative to their area of expertise. Such areas include but are not limited to noninvasive imaging (echo-cardiography, MRI), cardiac catheterization, and electrocardiography-the primary areas whereby cardiac structure, hemodynamics and rhythm are assessed. The goal is to provide consistent core didactics and readings, supplemented with an introduction to basic cardiac assessment in the outpatient and inpatient settings. Students will be afforded an opportunity to observe the interaction of multiple team members working toward the optimal patient care plan using a variety of diagnostic and imaging modalities. At the conclusion of the elective, students will have acquired a basic understanding of how abnormalities of cardiac structure and function impact the well-being of the pediatric patient through the care continuum. Though many principles are pediatric-specific, common concepts are shared with adult medicine as well. Students will also understand basic cardiac assessment in the infant, child and adolescent, primarily in the outpatient setting including history, physical exam, and appropriate use of diagnostic studies.

PED 5611. AI: Pediatric Medicine. The Pediatric Acting Internship is a course designed to give students a more robust experience of serving as an active member of the inpatient pediatric ward teams. Students will assume intern responsibilities with the supervision and countersignature of notes and orders by upper level residents, as well as participate in daily teaching conferences. Students will be assigned a number of long day shifts and a series of night shifts, with a maximum of four days off during the four week period. Patient assignments will be at the level of a census closer to that of an intern to provide increased responsibility and ensure readiness for residency. In order to ensure the strong clinical experience which characterizes this course, each position is built into the pediatrics house staff rotational schedule. Therefore, the pediatric service relies heavily on each student who is accepted into this course. We ask that each student consider his/her enrollment as a strong commitment to serve; add/drops will not be permitted.

PED 5612. ACE: Adolescent Medicine. Adolescent Medicine is a unique subspecialty in pediatrics in that it combines both primary care with consultative care for adolescents and young adults ages 12 to 22 years of age. During this ACE students will have the opportunity to learn comprehensive care of the adolescent using both a primary care and a multidisciplinary team approach. Students will have the ability to function within the Adolescent/Young Adult Clinic and will be exposed to a multidisciplinary team which includes a social worker, nutritionist and psychiatrist in conjunction with an adolescent medicine physician. At the end of the course, students will feel comfortable performing a complete psychosocial assessment of an adolescent using the HEADSSS assessment tool. They will have the opportunity to provide primary and basic gynecologic care for adolescents to include (1) how to perform a sports clearance exam; (2) how to take an appropriate menstrual history and screen for menstrual disorders; (3) how to take an appropriate sexual history; (4) how to counsel an adolescent on contraception. Students will also gain experience in the care of adolescents/young adults with eating disorders and major depression. Evaluations will be based on the student’s ability to take a complete and appropriate history/physical and develop a cohesive and appropriate treatment plan. This course will fulfill the primary care requirement.

PED 5615. ACE: General Pediatric Neurology. Students will participate in a four-week pediatric neurology advanced clinical experience with a flexible schedule that will allow students to pursue specific interests. Given student interests, the schedule will be individually tailored through discussion/planning with the ACE director and involve participation in the following venues: outpatient pediatric neurology clinic and the inpatient teams encompassing pediatric neurology, pediatric epilepsy, and critical care.

PED 5620. ACE: Pediatric Epilepsy. Pediatric Epilepsy Advanced Clinical Experience (PEACE) is an exciting multi-disciplinary specialty that encompasses pediatric neurology, neurosurgery, neuroradiology and neuropathology. Patients present with seizure onset ranging from birth into young adulthood. While due to many etiologies, most patients do well with standard medications achieving excellent seizure control. However, a substantial subset requires additional evaluations as well as dietary or surgical approaches. PEACE students will function within inpatient and outpatient clinical teams, as well as participate in divisional teaching conferences and also learn basic EEG reading skills. PEACE students will (1) deepen their understanding mechanisms causing epilepsy in children, (2) learn the basic principles of EEG reading and medical management of epilepsy in children, and (3) participate in multi-disciplinary evaluations of patients with epilepsy and participate in neurosurgical assessments and procedures.

PED 5625. ACE: Technology-based Engagement Consultation. Students in this course will participate in patient and family engagement consultations for children and adults admitted to the Monroe Carell Jr. Children’s Hospital at Vanderbilt (VCH) and Vanderbilt University Hospital. The purpose of this ACE is to provide the student with an understanding of the importance of patient and caregiver engagement for optimal health and health care, knowledge about the developmental process of patient and caregiver activation, and experience with recommending educational
and technological interventions to promote engagement and meet health-related needs. Participation in inpatient consultations will facilitate training in promoting engagement in pediatric and adult patients with a wide variety of clinical diagnoses. Didactic experiences that will reinforce the patient care experiences include our weekly multidisciplinary Patient and Family Engagement Consultation Team Meeting, weekly Biomedical Informatics Seminar, and clinical conferences relevant to the patients being seen in consultation.

**PED 5535. ACE: Pediatric Hematology/Oncology.** Once students have finished this ACE, they will have a better understanding of the pathology, treatment, and survival of common childhood cancers. They will also gain experience in working up and treating anemias and bleeding disorders. These objectives are accomplished through a combination of inpatient time and outpatient time. Half of the course will be on the inpatient service where the students will be expected to follow their own patients, present on rounds, write daily progress notes, and prepare a short 10-15 minute discussion of a patient of interest. The student should also participate in walk rounds with the fellow and faculty for more informal discussion. The other half of the course will be in the outpatient clinic. While there, the student will see both new patients and patients returning for therapy. The student will take a history from the family, perform a physical exam, interpret lab tests, present these patients to the faculty, and write notes. The student will also have the opportunity to attend “specialty” clinics to see a group of patients with a focused set of problems (for example sickle cell clinic).

**PED 5580. ACE: Pediatric Cardiology.** The advanced clinical experience in pediatric cardiology is a four-week course that aims to expose medical students to the broad spectrum of cardiac disease in children. The students will spend two weeks on the inpatient service getting exposure to acute cardiac disease and their care during perioperative period. Students will be responsible examining patients, presenting in rounds, and participating in the team care of the patients. An additional two weeks will be spent focusing on the outpatient side of cardiology. The student will participate in a variety of different cardiology outpatient clinics. Throughout the experience, the student will have the opportunity to accompany the inpatient cardiology fellow on inpatient consults. There will also be opportunity to watch cardiac catheterizations, watch a cardiac surgery, and spend time in the echocardiography laboratory.

**PED 5590. ACE: Pediatric Endocrinology.** Pediatric Endocrinology is a wonderful sub specialty of Pediatrics which involves studying about and caring for patients who have abnormalities involving hormonal regulation of basic body systems. Students will study physiology, pathology, molecular biology, genetics and pharmacology during the time they care for these patients. Some examples of endocrine disorders they will be expected to learn about will include: growth and pubertal disorders, disturbances in calcium homeostasis, hypo and hyperthyroidism, adrenal disorders, some disorders of sexual development and common disorders of glucose regulation. Students will also learn how to manage acutely ill pediatric diabetes patients in the hospital setting and they will learn the fundamentals of chronic, out-patient diabetes management. Under the supervision of the endocrine attending physician, students will see patients in the outpatient endocrine and diabetes clinics, and they will be an integral part of our ward team on the inpatient Endocrinology service.

**PED 5710. ACE: Pediatric Gastroenterology.** The Pediatric Gastroenterology Advanced Clinical Experience (ACE) provides exposure to a broad range of gastrointestinal, nutritional, and liver diseases in both the inpatient and ambulatory settings. Students will have the opportunity to observe and participate in outpatient evaluations of infants and children referred to the pediatric gastroenterology clinic under the direct supervision of faculty attending pediatric gastroenterologist, attend endoscopic procedures, participate in inpatient pediatric gastroenterology inpatient care and consults, and attend scheduled divisional didactic conferences. The rotation provides students with experience in the workup of common pediatric symptom complexes such as abdominal pain, vomiting, diarrhea, jaundice, and many other common complaints, as well as the opportunity to participate in multidisciplinary care of complex gastrointestinal disorders such as inflammatory bowel disease and chronic liver disease. Attendance in the endoscopy suite allows familiarity with esophagogastroduodenoscopy, colonoscopy, polypectomy, and rectal suction biopsy. The rotation will include core reading on the pathophysiology and management of important gastrointestinal diseases such as inflammatory bowel disease, biliary atresia, and short bowel syndrome. The student will prepare one in-depth talk on a gastrointestinal topic of their choice and receive feedback from the attending on the content and delivery.

**PED 5720. ACE: Pediatric Nephrology.** Pediatric Nephrology is an exciting specialty that functions at the intersection of renal physiology, pathology, anatomy, genetics, pharmacology, and immunology. Students who participate in this Advanced Clinical Experience will actively participate in the evaluation and management of patients who demonstrate the consequences of alterations in renal development and the genes that direct development. Students will have the opportunity to see in inpatients and outpatients with acute and chronic alterations in renal physiology including those with acute kidney injury, hypertension, glomerulonephritis, and chronic kidney disease in addition to those with congenital abnormalities of the kidney and urinary tract. Advanced understanding of renal physiology and pathophysiology will be an asset in any career path, because the kidney controls homeostasis for the entire body.

**PED 5730. AE: Child Abuse Pediatric Medicine.** Child Abuse Pediatrics is a pediatric subspecialty dealing with abused and/or neglected children and the forensic issues that raise. Students will have the opportunity to be a part of the Child Abuse Evaluation and Response Team based at Monroe Carell Jr. Children’s Hospital at Vanderbilt. In addition to participating in medical evaluations of children referred due to concerns of possible abuse and/or neglect, students will be able to observe court testimony, attend forensic interviews, and participate in multidisciplinary meetings with DCS and law enforcement. Students will be expected to 1) learn how to perform a basic child abuse evaluation, including taking a thorough history and performing a full physical exam with photography; 2) learn the importance of injury biomechanics, and 3) have a better understanding of the biopsychosocial aspects of child abuse.

**PED 5740. ACE: Pediatric Pulmonary Medicine.** Students in this course will participate in consultations on children referred for evaluation of lung disease in the hospital and in the outpatient clinic. The purpose of this ACE is to provide the student with expertise in the clinical evaluation of pulmonary disease in infants, children, and adolescents, and students will gain expertise in the relevant history, physical exam findings, and diagnostic testing used in a pulmonary evaluation. Participation in multi-disciplinary clinics in cystic fibrosis, bronchopulmonary dysplasia, and asthma will facilitate training in caring for children with chronic lung diseases. Didactic experiences that will reinforce the patient care experiences include our weekly Pediatric Pulmonary Imaging Conference, our weekly Pediatric Pulmonary Core Curriculum Conference, and other monthly conferences that constitute our fellowship training program. Students will have the opportunity to participate in bronchoscopies.

**PED 5750. ACE: Pediatric Rheumatology.** Students will participate in the evaluation and care of children referred to the pediatric rheumatology program at Vanderbilt Children’s Hospital. The experience will involve direct interactions with patients and their families in both the inpatient and outpatient settings. Students will also have the opportunity to participate in divisional conferences in which patient cases and radiographic studies are discussed, and recent journal articles are reviewed. Over the course of the month, the student will gain an understanding of the presenting symptoms, exam findings, and laboratory studies of autoimmune diseases in children, as well as current treatment strategies. Through these clinical experiences, the student will gain insight into the impact of chronic disease on children and their families. The clerkship will also afford the student a unique opportunity to gain experience with the fundamentals of the musculoskeletal exam, which has broad application outside of rheumatology. Prerequisite: Pediatrics 5020. Fourth year.

**PED 5760. ACE: Spanish Language Pediatric Clinic.** Demographics in the U.S. are changing and Latinos are now the fastest and largest growing minority group in the United States. Students need to be prepared to provide effective care to Spanish speaking population. This ACE offers student the opportunity to function within the Primary care pediatric clinic as they participate in well-child visits and acute visits for Spanish speaking families, as well as exposes students to community resources that are targeted to this population. The course will focus on 1) enhancing students’ fluency in Spanish, 2) learning appropriate medical terminology for
developmental screening, anticipatory guidance, and explaining disease processes. (3) learn about immigrant experience (immigration process, Barriers to access to care, Education and Culture), and (4) explore various views of disease within this population, including alternative health beliefs, use of alternative medicines and therapies, and traditional interactions with medical professionals. In addition, students will be expected to participate in a small project.

PED 5800. ACE: Developmental Pediatrics and Genetics. The combined Developmental Pediatrics and Genetics ACE will blend two specialties that are important in all facets of Pediatric Medicine. This course is primarily an out-patient experience that allows students to assess and diagnosis children who have developmental and genetic conditions. Students will work within multidisciplinary teams and have the opportunity to learn the roles of other medical providers that their patients might work with including therapists, psychologists, genetic counselors, nurse practitioners, and dieticians. During the genetics portion of the course, students will assist in diagnosis and managing children with complex genetic diseases. Students will have the opportunity to (1) deepen their knowledge of genetic conditions including dysmorphology, biochemical genetics, single-gene disorders, and chromosomal disorders, (2) assess family histories, (3) participate in the medical intake that can help lead to a diagnosis, and (4) learn resources they can use throughout their career when working with patients with genetic conditions. During the developmental pediatrics portion of the course, students will start to become familiar with typical and atypical courses of childhood development. The goal of this rotation is to teach medical students how to (1) take a developmental history, (2) assess how a child is functioning currently, (3) understand what interventions that are likely to help the child make developmental progress and (4) be familiar with certain developmental disabilities that are common in our society, including Autism Spectrum Disorders and Down Syndrome.

PED 5815. AI: Neonatology. Neonatologists care for newborns with a wide variety of conditions, ranging from prematurity to surgical conditions, infections to congenital cardiac disease, and respiratory distress to genetic disorders. Students in this rotation will work in the Children’s Hospital Neonatal Intensive Care Unit on the Red Team. The Red Team cares for patients primarily with congenital heart disease, surgical, and genetic disorders. This team does not attend deliveries. The AI will provide care for 3-5 patients with a wide range of conditions. The AI will be expected to pre-round on all patients, write orders and assist with TPN orders, review X-rays and lab results and contact and interact with consultants. He or she will be required to write History and Physicals, Daily Progress Notes, and Discharge Summaries. This is a high intensity AI with very complex patients with genetic conditions. During the rotation, students will work within multidisciplinary teams and have the opportunity to (1) function within a family-centered care model, (2) develop and manage treatment plans, and (3) participate in the evaluation and management of children on the Pediatric Intensive Care Unit (PICU). The rotation will include core reading on the pathophysiology and management of infectious diseases such as meningitis, osteomyelitis, and pneumonia. Students will actively participate in the evaluation and management of children on the PICU service in both the ambulatory and inpatient settings.

PED 5910. ACE: Pediatric Infectious Diseases. The Pediatric Infectious Diseases (PID) Advanced Clinical Experience (ACE) provides students the opportunity to evaluate and participate in the management of children with a wide range of suspected or proven infectious diseases. The PID rotation offers the learner to gain experience in the workup of common symptom complexes such as prolonged fever, joint pain / limp, respiratory illnesses, rash, and many other common pediatric presentations. The rotation also provides valuable experience in the pharmacology and pharmacodynamics of antimicrobial agents, as well as the proper use and potential adverse effects of these commonly prescribed drugs. The rotation will include core reading on the pathophysics and management of infectious diseases. Students will be expected to stay for overnight call at least four times during the four-week rotation. This course will fulfill the acute care rotation requirement.

PED 5990. ACE: Pediatric Critical Care. Pediatric Critical Care is an exciting specialty that cares for the sickest patients from birth into young adulthood. The Pediatric Intensive Care Unit (PICU) and the Pediatric Cardiac Intensive Care Unit (PCICU) both offer unique blends of physiology, pharmacology and pathology in disease processes ranging from to sepsis, respiratory failure, and traumatic brain injury to congenital heart disease and repair. Students will have the opportunity to function within the PICU and/or PCICU clinical teams, as well as participate in divisional teaching conferences. The course will focus on enhancing student clinical practice-based learning skills. Students will have the opportunity to (1) develop understanding of the complex pathophysiology of critically ill children, (2) learn the basic principles of multidisciplinary management and resuscitation of critically ill children, and (3) review common diseases seen in a busy pediatric critical care unit. Additionally, students will be expected to stay for overnight call at least four times during the four-week rotation. This course will fulfill the core curriculum requirement.
PED 6002. Vanderbilt Consortium LEND (VCL) Core Curriculum Modules 2. The primary formal education portion of the VCL is the core curriculum: weekly modules and in-person core curriculum seminars at the end of each unit. Each weekly module on the LEND Moodle contains objectives, required readings or other activities, and several questions. Students, including the medical student(s) in this certificate program, are assigned to interprofessional groups of six to seven trainees, and each group submits group answers to the questions at the end of each week. On a rotating basis, each week one of the trainees serves as a group leader to maintain group accountability and productivity. For each question in the module, one trainee writes a draft response, then a second trainee reviews and edits the response. The leader compiles and formats all edited responses, provides an opportunity for the group to edit the entire answer set, and then uploads the answer set to the LEND Moodle by the deadline. The following week the faculty facilitators for the module provide feedback to the group within the documents submitted and uploads the document with the feedback into the module forum. All groups can review the feedback provided to every group. At the end of every given unit of study, there is an in-person seminar facilitated by LEND faculty. These seminars provide an opportunity for the interprofessional groups to work together to apply what they learned from the weekly modules to clinical cases. Anonymous peer assessments are completed at the end of each semester to maintain individual accountability and to provide feedback on leadership skills, communication skills, and professionalism. This blended educational experience combines online, asynchronous, and team-based assignments with in-person, case-based interprofessional teamwork to provide a rigorous comprehensive curriculum in neurodevelopmental disabilities.

PED 6003. Vanderbilt Consortium LEND (VCL) Leadership Seminars 1. The leadership series fosters development of effective leadership competencies by providing opportunities for students to read research-based leadership, business administration and management, and organizational psychology literature that they would not be exposed to in their primary professional training. They glean leadership skills by teaching each other the material in the required readings; discussing case scenarios in their interprofessional groups; practicing communication skills, advocacy, negotiation skills, and conflict resolution through role playing and group discussions; and applying the knowledge and skills taught in the leadership seminar to a personal or professional situation. LEND faculty members in each group also provide training in leadership by modeling leadership skills as well as sharing their personal leadership experiences during the evening seminars and in their responses to the trainees’ critical reflections. Content for each monthly Leadership Seminar on the LEND Moodle contains learning objectives and required readings or other activities that are completed before each two-hour evening seminar. Readings are chosen from the seminal leadership, business and management, organizational psychology, and neuroscience literature. Students, including the medical student(s) in this certificate program, are assigned to interprofessional groups of six to seven for the Leadership Seminars; the groups are different than the Core Curriculum groups so the trainees have experience working in different interprofessional teams. Each team is facilitated by two LEND faculty from diverse professions, and each session is led by the LEND director. The formats for the evening seminars include small group case-based discussions, role-playing, and large group debriefs and discussions. After each session, each trainee applies the concepts or principles taught in the session to a scenario in her or his personal or professional life and writes a one-page critical reflection paper on which a faculty member provides feedback.

PED 6004. Vanderbilt Consortium LEND (VCL) Leadership Seminars 2. The leadership series fosters development of effective leadership competencies by providing opportunities for students to read research-based leadership, business administration and management, and organizational psychology literature that would not be exposed to in their primary professional training. They glean leadership skills by teaching each other the material in the required readings; discussing case scenarios in their interprofessional groups; practicing communication skills, advocacy, negotiation skills, and conflict resolution through role playing and group discussions; and applying the knowledge and skills taught in the leadership seminar to a personal or professional situation. LEND faculty members in each group also provide training in leadership by modeling leadership skills as well as sharing their personal leadership experiences during the evening seminars and in their responses to the trainees’ critical reflections. Content for each monthly Leadership Seminar on the LEND Moodle contains learning objectives and required readings or other activities that are completed before each two-hour evening seminar. Readings are chosen from the seminal leadership, business and management, organizational psychology, and neuroscience literature. Students, including the medical student(s) in this certificate program, are assigned to interprofessional groups of six to seven for the Leadership Seminars; the groups are different than the Core Curriculum groups so the trainees have experience working in different interprofessional teams. Each team is facilitated by two LEND faculty from diverse professions, and each session is led by the LEND director. The formats for the evening seminars include small group case-based discussions, role-playing, and large group debriefs and discussions. After each session, each trainee applies the concepts or principles taught in the session to a scenario in her or his personal or professional life and writes a one-page critical reflection paper on which a faculty member provides feedback.

PED 6005. Vanderbilt Consortium LEND (VCL) Care Navigation 1. In this course learners in the VCL learn about the health care system, community services, and the social determinants of health in individuals with NDD by providing care navigation throughout the academic year to a small panel of patients seen in a local clinic. The experience will include conducting navigation interviews with the families, home visits, clinic visit, and identification of local resources that can help patients with neurodevelopmental disabilities and their families.

PED 6006. Vanderbilt Consortium LEND (VCL) Care Navigation 2. In this course learners in the VCL learn about the health care system, community services, and the social determinants of health in individuals with NDD by providing care navigation throughout the academic year to a small panel of patients seen in a local clinic. The experience will include conducting navigation interviews with the families, home visits, clinic visit, and identification of local resources that can help patients with neurodevelopmental disabilities and their families.

PED 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor and completes a period of clinical work. Approval required.

PED 7100. AWAY ACE: Pediatrics. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

PED 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Preventive Medicine

PM 7100. AWAY ACE: Preventative Medicine. Each student arranges an independent study with a mentor and completes a period of clinical or research work. Approval required.

Physical Medicine and Rehabilitation

PMR 5310. Principles of Physical Medicine and Rehabilitation. This course is designed to provide exposure to the practice of physical medicine and rehabilitation (PM&R) with an emphasis on musculoskeletal and neurologic rehabilitation. Many of these patients have had acute illness, trauma, surgical procedures, and prolonged hospitalization and require inpatient and/or outpatient rehabilitation. The student will be asked to participate in a series of introductory lectures as well as rounds, clinics, and case discussions. The attending physician on the PM&R service will define participation in patient care. The student will be expected to participate in the evaluation of individuals with significant impairment and disability such as spinal cord injury, traumatic brain injury, stroke, amputations/complex fractures, multiple trauma and general debility. Outpatient clinics are available to expose students to the long-term problems which these patients encounter. At the conclusion of the two weeks, students will be able to
take a PM&R oriented history; perform a physical examination with an emphasis on functional status and disability; formulate rehabilitation goals; and understand the importance of rehabilitation as part of the post-acute care continuum.

PMR 5611. ACE: Introduction to PM&R. Hands-on exposure to the practice of physical medicine and rehabilitation (PM&R) with an emphasis on musculoskeletal and neurological rehabilitation is offered in this course. Many of our patients have had acute illness, trauma, surgical procedures, and hospitalization and the student will have an opportunity to follow the patients post-acute. The primary responsibility is the care of those patients with spinal cord injury, stroke, amputations/complex fractures, multiple trauma, traumatic brain injury, and general debilitation. The attending physician on the PM&R Service will define participation in patient care. The student will be expected to [1] participate in the evaluation, functional diagnosis, and treatment of individuals with significant impairment and disability who require long-term hospitalization to achieve maximal independence and [2] Integrate medical and surgical knowledge in the care of patients in the hospital for rehabilitation and in the outpatient clinic. Additionally, adult and pediatric outpatient clinics are available to expose students to the long-term problems which these patients encounter.

PMR 7100. AWAY ACE: Physical Medicine and Rehabilitation. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

Psychiatry

PSYCH 5020. Psychiatry Core Clerkship. Basic goals of this clerkship which includes psychiatry clinical rotations are to learn the fundamental techniques of psychiatric assessment, differential diagnosis, and treatment intervention. Activities include direct patient care and clinical rounds in the company of assigned faculty. The five 1/2-week placements include Vanderbilt University Hospital, Vanderbilt Psychiatric Hospital at Vanderbilt (Adult/Adolescent/Child). Third year.

PSYCH 5310. Introduction to Addiction Psychiatry. This two-week elective will offer students an opportunity to join a team of physicians on the Addiction Psychiatry service at Vanderbilt Psychiatric Hospital (VPH). The clinical team will be caring for patients admitted to the hospital for detoxification, diagnosis, and psychiatric stabilization and treatment planning. As substance use disorders often co-occur with depression, bipolar illness, organic brain disorders, and anxiety disorders (especially post-traumatic stress disorders, sometimes with sexual and eating disorders), the addiction psychiatry experience will expose students to a variety of common psychiatric problems. Students will be interacting with inpatients, learning about detoxification protocols, as well as seeing patients in follow up outpatient addiction clinics. Students may sit in on treatment groups for opiate dependent patients and attend a nearby Narcotics Anonymous support meeting. At the conclusion of the elective, students will be able to take a psychiatric history, perform a mental status examination, and know the basics of case formulation. Additionally, students will have familiarity with evidence-based approaches to care, understanding the role of an addiction psychiatrist as well as how addiction may present to physicians practicing in many specialties of medicine and surgery.

PSYCH 5620. ACE: Neuropsychiatry. This advanced clerkship (elected after completing rotations in both neurology and psychiatry) is an introduction to clinical practice and research at the interface of psychiatry and neurology. Under supervision, the student will examine patients with psychiatric and neurologic diseases affecting emotions, such as temporolimbic epilepsy, frontal lobe lesions, strokes in the non-dominant hemisphere, or degenerative conditions such as Alzheimer’s Disease, Parkinson’s Disease, vascular dementia, and Huntington’s Disease. Readings will focus on the neurology of emotion, including functional neuroanatomy, experimental neuropsychology, and electrophysiology. The student may participate in research protocols involving quantitative behavioral assessment, autonomic measures, and structural and metabolic imaging of the brain. Each experience in this clerkship is unique and will be tailored to the specific interests of the student. Consequently, we can only accept one student per rotation.

PSYCH 5625. ACE: Child and Adolescent Psychiatry Consult-Liaison. This advanced clerkship is an introduction to clinical practice as a consultation liaison psychiatrist working with children and adolescents. Under supervision, the student will examine patients with psychiatric diseases complicating pediatric management including delirium, catatonia, anxiety and mood disorders both complicating pediatric illness and mimicking pediatric illnesses (somatoform disorders), management of chronic pain in collaboration with the pediatric pain team, acute stress and post-traumatic stress disorder on the trauma service and in the intensive care unit, and psychiatric consultation regarding eating disorders. Readings will focus on the neurobiology of trauma and the neurobiology of the interface between emotions and physical disorders. The student may participate in research studies if available at that time.

PSYCH 5629. ACE: Inpatient Child and Adolescent Psychiatry. Students will provide inpatient psychiatric care for children and adolescents aged 4 to 18. Students can expect to see a varied range of ages, diagnoses, and presenting complaints including depression, anxiety, psychotic disorders and autism. Students will join a multidisciplinary team working with nursing, social work, and mental health specialists to treat acute mental illness. The primary goals of treatment include comprehensive diagnosis, pharmacologic management, development of treatment plans, and implementation of behavior management protocols. Family meetings occur twice weekly to support safe transition to outpatient care.

PSYCH 5635. ACE: Emergency Psychiatry. In the Psychiatric Treatment Unit the student will see a broad range of acute psychiatric and neuropsychiatric disorders. Commonly encountered conditions include delirium, dementia, depression, suicide attempts, capacity evaluations, agitation management, altered mental status, conversion disorder, addictions, and somatoform disorders. This is similar to the population on the Consultation-Liaison service, but with greater acuity and a focus on disposition. The student will work closely with the primary resident providing coverage with supervision to the team by the attending. Students will also see psychiatric consults in the VUMC Emergency Department and OB/GYN triage. Patients will be above the age of 18.

PSYCH 5638. ACE: Outpatient Psychiatric Clinics. Students will become primarily active contributors to evaluation and treatment clinics in adult outpatient psychiatry under the direct supervision of Dr. Bill Petrie. Students will have the opportunity to work closely with Dr. Petrie in both inpatient and outpatient settings, treating a wide variety of psychiatric illness. Students sitting in on psychotherapy with Dr. Linda Manning at VCH are also available. Students will work individually and in teams, observing and learning the basics of outpatient psychiatric evaluation, psycho-pharmacology and psychotherapy (particularly psycho-dynamic formulation and the principles of insight-oriented therapy and CBT). The course will also include didactic teaching, case presentations, treatment planning, chart review and group supervision.

PSYCH 5639. AI: Inpatient Child and Adolescent Psychiatry. Students will provide inpatient psychiatric care for children and adolescents aged 4 to 18 in a multidisciplinary setting. This course offers the opportunity to take full ownership for patient care in direct collaboration with the attending physician. Students will carry a case-load of patients intended to prepare them for their future role as residents. Duties will include completion of daily documentation including admission/discharge/daily notes, order entry, and patient cross-cover. Students can expect to see a varied range of ages, diagnoses, and presenting complaints. Feedback will be provided to ensure readiness for residency.

PSYCH 5641. ACE: Inpatient Treatment of Psychosis. Psychosis (i.e., delusions, hallucinations, disorganized thought and behavior) is a cardinal feature of several psychiatric disorders. This advanced clinical experience gives the student hands-on exposure to inpatient treatment of patients with psychotic disorders. Students will work closely with resident and attending physicians to develop differential diagnosis and treatment plans. Treatment in this inpatient setting centers on stabilization of acute and severe illness. Students will be responsible for following several patients. Assigned readings supplement patient care experiences.

PSYCH 5645. ACE: Adult Psychiatry Consult-Liaison. The Adult Psychiatry Consultation Service at VUMC provides psychiatric services for a
broad range of patients with psychiatric and neuropsychiatric disorders in the context of medical, surgical, and obstetric (and other) inpatient settings at Vanderbilt University Hospital and Stallworth Rehabilitation Hospital. Our service is one of the busiest in the country and offers an opportunity to see the intersection of psychiatric conditions with medical illness. Commonly treated conditions include delirium, dementia, depression, anxiety, suicide attempts, substance withdrawal, conversion disorder, somatic symptom disorder, and factitious disorder. Regardless of the diagnosis, we also help with agitation management and capacity evaluation. The sub-intern will become an integral part of the team, with assigned primary focus on the care of a discrete set of patients, and will be directly supervised by Psychosomatic Medicine fellows and Psychiatry attendings. A practical focus on areas of special interest to the student may be arranged.

PSYCH 5655. AI: Addiction Psychiatry. Alcohol and other substance use disorders are extremely common in primary care and across a broad range of medical specialties. These conditions lead to direct medical and psychiatric co-morbidity, predispose to a host of associated conditions (e.g. cancer, cirrhosis, physical and emotional trauma, infections, and mood disorders), and complicate management of medical and surgical conditions. The mission of this AI in substance use disorders is to help provide future physicians with the fundamental clinical skills necessary to properly diagnose, treat, and refer patients with substance abuse disorders.

PSYCH 6100. Special Clinical Study—Vanderbilt. A variety of opportunities are available for clerkships and electives in the Department of Psychiatry that can be combined, especially where daily continuous patient care is not essential to work flow. In addition to the standard rotation sites, other experiences can be arranged. Two or three experiences can be combined within a single elective month. These may include a mixture of areas within and outside the listed standard electives, such as forensics, geriatric psychiatry, and brain imaging research. Opportunities will be arranged to meet the interests of the individual student, potentially blending topics to provide exposure to two to three of these areas. Faculty approval is recommended at least two months prior to the start of the month’s rotation in order to develop a plan optimal to meeting the student’s interests. Approval required.

PSYCH 7100. AWAY ACE: Psychiatry. Each student arranges an independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

PSYCH 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

Radiology

RAD 5310. Introduction to Interventional Radiology. Students will join a team of attending, fellow and resident physicians on the Interventional Radiology service at Vanderbilt Monroe Carrel Children’s Hospital (VCH). Interventional Radiology involves working as a consultant to the physicians who are caring for patients admitted to the hospital as well as performing a multitude of outpatient procedures. Reasons for consultation requests vary, but some of the more common ones include arteriography, CT-guided biopsy of lesions, implantation of infusion devices, and external drainage of infectious processes. With each new consultation request, students will have the opportunity to research the patient using StarPanel and then present the case to the team during morning rounds. The student will then be able to perform a history and physical on patients as they get prepared for their procedure. The student will then participate in the procedure and provide follow-up care as needed with the supervision of the resident and attending physicians. At the conclusion of the two-week elective rotation, students will be able to understand the role Interventional Radiology plays in the care of both inpatients and outpatients. They will have a basic understanding of the breadth of procedures offered, and the indications, complications, and post-procedural care for the most common procedures. Additionally, the students will have familiarity with evidenced-based approaches to care.

RAD 5315. Radiology Elective. The course will provide students with a broad exposure to the various subspecialties of radiology and will provide focused training on basic chest x-ray interpretation. The students will spend each morning in a different reading room within the department. The students will sit with the faculty, fellows, and residents on the service and observe them interpreting the various studies that are read or performing the various procedures that are done. For each reading room, there will be a series of 5 or so “check-offs” which consists of bits of information that student must learn in that reading room (for example, “What is the appropriate follow-up of an incidentally-discovered pulmonary nodule?”). The afternoons will be spent attending didactic lectures and participating in the focused chest x-ray “boot camp.” Each afternoon there will be a one-hour lecture on one of the different radiology sub-specialties. Students will use the knowledge gained in the didactic session along with content from the boot camp handout to work through the various chest films with the course director. Each day the films will be slightly more difficult than the day before. At the conclusion of the elective, students will know the various imaging modalities and the role they play in the diagnosis of disease and management of patients; the numerous procedures performed by radiologists and their role in patient care; and how radiologists participate as active members of multidisciplinary health care teams in caring for patients. Students will develop skills and confidence in the interpretation of plain chest x-rays, particularly for common and major abnormalities.

RAD 5320. Musculoskeletal and Emergency Radiology. Students will spend two weeks in the musculoskeletal/emergency radiology reading room. It’s a bustling place where MSK-subspecialty trained radiology faculty, MSK fellows, and radiology residents interpret musculoskeletal studies and selected studies performed in the Emergency Department, as well as provide consultation services to a variety of physicians (emergency, trauma team, general surgery, orthopaedic surgery, infectious diseases, internal medicine, rheumatology, etc.). Students will be exposed to a broad spectrum of musculoskeletal pathology including trauma, athletic injuries, arthritis, infection, neoplastic conditions, expected post-operative changes, and post-operative complications. Imaging modalities will include conventional radiographs, Magnetic Resonance Imaging, Computed Tomography and, possibly, ultrasonography. Students will have the opportunity to observe interventional procedures such as fluoroscopically-guided arthrography and CT/US-guided biopsies. In addition to daily teaching at the PACS monitors using live cases, there will be didactic lectures/case presentations written specifically for this course focusing on trauma, sports injuries, arthritis, and the basics of musculoskeletal neoplasms. The advantages and limitations of the various modalities utilized will be emphasized. The didactic component of the elective will be further enhanced by daily noon radiology conferences. The course will be of particular interest to students contemplating careers in radiology, orthopaedic surgery, sports medicine, and emergency medicine; however, any student interested in learning more about the musculoskeletal system or radiology is encouraged to attend. At the conclusion of the two-week elective rotation, students will be able to accurately describe fractures, have an organized approach to diagnosing arthritis, recognize significant athletic injuries on MRI, have a basic understanding of the concept of aggressive ness of musculoskeletal neoplasms, and have an understanding of the strengths and limitations of the modalities used by radiologists in diagnosing a variety of conditions.

RAD 5610. ACE: Diagnostic Radiology. Students will rotate through all diagnostic subspecialties in radiology, getting a broad exposure to various pathologies and imaging modalities. The purpose of this course is to acquaint medical students with the fundamentals of diagnostic imaging and to highlight optimal imaging pathways for various clinical conditions. Other key topics such as ionizing radiation risks, contrast media, the strengths, limitations, and relative costs of the various imaging modalities, management of equivocal findings and negative examinations, the importance of open communication between clinicians and radiologists, and basic use of the PACS workstation will be covered as well. The course is designed to be relevant and suitable for all medical students, regardless of their ultimate career choice or interests; this course is not designed solely for students interested in pursuing a career in radiology. Besides getting daily instruction in the reading rooms by faculty, fellows, and residents, students will be engaged in a number of other educational activities. Students will watch Radiology faculty lecture podcasts on various topics, complete reading assignments, attend live lectures presented by radiology residents, attend daily Radiology noon conferences, solve weekly
unknown case challenges, and prepare a final "unknown case" presenta-
tion. The course has a pre-test and a final exam.

**RAD 5630. ACE: Pediatric Radiology.** This course will introduce the
medical student to the principles of diagnostic imaging in a children’s
hospital setting. The medical student experience consists of interactive
reading room sessions covering all diagnostic imaging modalities, such as
radiography, fluoroscopy, computed tomography (CT), MRI, nuclear medi-
cine, and subspecialties in pediatric radiology such as neuroradiology and
interventional radiology. The students have the opportunity to attend radi-
ology teaching conferences and many interdisciplinary conferences which
highlight imaging. In addition, we offer a host of self- directed activities
outside the reading room, such as recommended reading assignments,
learning modules, and teaching files. The successful student will learn the
radiologist role in the care of the patient and how to interact with radiolo-
gists, as well as the appropriate work up of common pediatric conditions.
The importance of the clinical question in the role of choosing the best and
most appropriate diagnostic imaging studies is emphasized.

**RAD 5640. ACE: Neuroradiology.** The month will allow a broad exposure
to the field of neuroradiology with a strong focus on review of clinically rel-
vanent neuroanatomy. The primary role of the student will be as an observer,
working alongside residents, fellows and faculty as imaging studies are
interpreted and procedures are performed. Students will be responsible for
delivering a single informal presentation during the month. Prerequisite: ISC:
Medical Imaging and Anatomy or ACE: Diagnostic Radiology

**RAD 5650. ACE: Adult Interventional Radiology.** Interventional Radiol-
ysis is an exciting, fast paced, advanced specialty performing minimally
invasive procedures on virtually every organ in the body. This course
provides an immediate immersion into the daily life of an IR. You will be
involved in every aspect of treating patients, including outpatient clinic vis-
its, researching and working up the patient the day of the procedure, pre-
senting the patient in morning rounds, consenting and performing physi-
cal exams, scrubbing in on the procedure, admitting and post procedural
care, inpatient rounds, and long term follow-up. You will also have the
option to visit other specialty areas of IR, including Pediatric IR, the One
Hundred Oaks Vein Center, and read CTA/MRA with our noninvasive vas-
cular specialists. You will be required to research and present one case
report while on the service. The typical day lasts from 7 am to 6 pm and
there are no call responsibilities. Typical procedures include angioplasty
and stent placement in the arteries and veins, embolization of bleeding,
embolization of tumors, uterine fibroid embolization, bronchial artery
embolization, gonadal vein embolization, chemo-embolization, percuta-
aneous treatment of tumors (ablation), placement of nephrostomy, biliary,
gastroscopy, venous catheters, and TIPS.

**RAD 5710. ACE: Visiting Diagnostic Radiology.** The Visiting Diagnostic
Radiology Elective in diagnostic radiology is designed for medical students
interested in pursuing a career in radiology. The goals of the course are
to acquaint medical students with the fundamentals of diagnostic imaging
and to highlight optimal imaging pathways for various clinical conditions.
Students will rotate through several diagnostic subspecialties in radiology
and get a broad exposure to various pathologies and imaging modalities.
Daily instruction will be provided by faculty, fellows, and residents.

**RAD 6100. Special Clinical Study—Vanderbilt.** Each student arranges
an independent study with a mentor and completes a period of clinical
work at Vanderbilt. Approval required.

**RAD 7100. AWAY ACE: Radiology.** Each student arranges an indepen-
dent study with a mentor and completes a period of clinical work away
from Vanderbilt. Approval required.

**RAD 7150. Special Research Study—Non-VU.** Each student arranges an
independent study with a mentor and completes a period of research
work away from Vanderbilt. Approval required.

**Radiation Oncology**

**RADO 5315. Introduction to Radiation Oncology.** This elective is
designed to introduce students to the field of radiation oncology. This will
require approximately 40 hours per week. No nights or weekends. Students
will be paired with attending/resident pairs which will be assigned on a
daily basis by the chief resident. With each new patient, the student will
be expected to go in to see the patient first and obtain a basic history and
physical. This will be presented to the resident who will then review these
findings directly with the attending. The team (resident/attending/student)
will then discuss treatment options with the patient and formulate a treat-
ment plan. At the conclusion of this course students will be able to take a
focused oncologic history, perform a pertinent exam, and understand the
basics of diagnosis, staging, and treatment options for cancer patients.
They will learn about the multidisciplinary nature of oncologic care.

**RADO 5620. ACE: Radiation Oncology.** This 4 week clinical rotation in
radiation oncology is designed for students who are interested in pursu-
ing a career in radiation oncology. Students are integrated into the clinical
workflow. They are assigned to work one on one with individual attend-
ings covering all aspects of radiation oncology including malignancies of
the head and neck, lung, breast, gastrointestinal, gynecological, prostate
and brain. Students work with radiation oncology residents in the initial
evaluation of patients, formulation of treatment, supervision of treatment,
and follow-up evaluations. Students will learn indications and techniques
for radiation therapy. With each new patient, the student will be expected
to go in to see the patient first and obtain a basic history and physical.
This will be presented to the resident who will then review these findings
directly with the attending. The clinical team (resident/attending/student)
will then discuss treatment options with the patient and formulate a treat-
ment plan. At the conclusion of this course students will be able to take a
focused oncologic history, perform a pertinent exam, and understand the
basics of diagnosis, staging, and treatment options for cancer patients.
They will learn about the multidisciplinary nature of oncologic care. At
the end of the rotation students are required to give an oral presentation at
the departmental teaching seminar.

**RADO 6100. Special Clinical Study—Vanderbilt.** Each student arranges
an independent study with a mentor and completes a period of clinical
work at Vanderbilt. Approval required.

**RADO 7100. AWAY ACE: Radiation Oncology.** Each student arranges an
independent study with a mentor and completes a period of clinical work away from Vanderbilt. Approval required.

**RADO 7150. Special Research Study—Non-VU.** Each student arranges an independent study with a mentor and completes a period of research work away from Vanderbilt. Approval required.

**Surgery**

**CHAIR OF THE SECTION R. Daniel Beauchamp**

**General Surgery**
- General Surgery, VAH
- Colon and Rectal Surgery
- Emergency General Surgery
- Gastrointestinal and Laparoscopic Surgery
- Hepatobiliary/Liver and Renal Transplant
- Surgical Oncology
- Trauma

**Surgical Specialties**
- Cardiac Surgery
- Neurological Surgery
- Oral and Maxillofacial Surgery
- Pediatric Surgery
- Plastic Surgery
- Thoracic Surgery
- Urologic Surgery

**SURG 5020. Surgery Core Clerkship.** This is the third year clinical core
rotation. For ten weeks each student in the third-year class is assigned to
the surgical divisions of Vanderbilt University Hospital or Nashville Veterans
Administration Medical Center. Under the direction and supervision of the
staff, the student takes histories, does physical examinations and assists
the staff in the diagnostic evaluation and clinical management of assigned patients. Half of each student’s period of clinical work is in general surgery. The other five weeks of the clinical assignment provide two (2) rotations to the specialty services in Anesthesiology (VUH), Cardiothoracic (VUH/VAH), Interventional Radiology (VUH), Neurosurgery (VUH), Ophthalmology (VUH), Orthopaedic Surgery (VUH), Otolaryngology (VUH), Pediatric Surgery (VUH), Plastic Surgery (VUH), Renal Transplant (VUH), Urology (VUH), Vascular Surgery (VUH), and Trauma (VUH). These rotations provide exposure to a variety of patients with problems in general surgery and in the specialty fields of surgery. Members of the staff hold teaching sessions daily. Students go with their patients to the operating rooms where they are observers and assistants. An integral part of this clerkship is the core lecture series in surgery. Students will be assigned faculty preceptors for small group discussions. Third year.

SURG 5310. Reconstructive Urology. Students will join a team of attendings, fellows, and residents on the Reconstructive Urology service at Vanderbilt Hospital and Cool Springs Surgery Center. Students will participate in the operating room, clinics, outpatient procedures, didactics, and inpatient management for the Reconstructive Urology service. Common issues encountered and treated on this service include incontinence, urethral stricture disease, erectile dysfunction, Peyronie’s disease, voiding dysfunction, pelvic organ prolapse, and neurogenic bladder. At the conclusion of the two-week elective rotation, students will be able to take a focused urologic history and physical, understand the basics of evaluation and management of Reconstructive Urology issues, and appreciate the medical and surgical modalities utilized to diagnose and treat these patients. Additionally, the students will gain a familiarity with the use of evidence-based medicine as it applies to Reconstructive Urology.

SURG 5315. Introduction to Plastic Surgery. In this two-week elective, students will be exposed to the broad spectrum of plastic surgery including pediatric plastic surgery (cleft lip and palate, major craniofacial surgery, and other congenital and acquired anomalies), hand surgery, microvascular surgery, burn surgery, reconstructive surgery of the extremities, and breast, head, and neck reconstruction. They will also have the opportunity to be exposed to cosmetic plastic surgery including facial rejuvenation, breast enhancement and reduction, and other body contouring procedures. At the end of the rotation, students will have a much greater knowledge and appreciation of the role that plastic surgery plays in patient care.

SURG 5320. Cardiac Surgery Mechanical Support. This will be a two-week elective in the CVCU focusing on advanced mechanical support in cardiac surgery. The students will be given patients who are undergoing mechanical support which may include a left ventricular assist device, Impella, ECMO, etc. Students will round with the team and present these patients. After rounds they will receive hands-on simulator training and review echocardiography images on cardiac surgery patients. Lectures will discuss the types of mechanical devices and hemodynamic assessment with pulmonary artery catheters and echocardiography. If for some reason there are no mechanical devices, students will care for the most complex patients in the ICU. At the conclusion of the elective, students will understand the different types of mechanical support, know advanced cardiac physiology, understand basic transesophageal and transthoracic echocardiography, have experience using echocardiography on a simulator, and will be able to present on extremely complex cardiac surgery patients.

SURG 5325. Fundamentals of Spine Surgery. Students participating in this elective will have an in-depth exposure to the diagnosis and surgical management of spine disorders. Students will spend several days each week in the neurosurgical operating room, observing and participating in cases ranging from the treatment of degenerative disorders to spinal tumors and spine trauma. Emphasis will be placed on learning key anatomic and surgical concepts that optimize patient outcomes. Students will also spend time with neurosurgery faculty in the outpatient clinic; participating in cases including resection of brain tumors, epilepsy surgery, and treatment of hydrocephalus, spine disorders, and trauma. Students will also spend time seeing patients in the clinic; participating in inpatient rounds and consults; sitting in on discussions between faculty, patients, and families; and attending conferences such as pediatric brain tumor board and journal club. In addition to case-based learning, students will read several key readings and discuss these with faculty. At the conclusion of the two-week elective, students will understand the basic paradigms used in the treatment of common brain tumors. They will be familiar with surgical techniques used to treat brain tumors, and they will gain insight into the multidisciplinary aspect of oncology and techniques for communicating difficult news to patients.

SURG 5335. Pediatric Neurosurgery. Students participating in this elective will have an introductory exposure to the surgical treatment of neurologic disorders in children from infancy through adolescence. Each day will begin with attendance at morning report, where overnight consults and upcoming cases are discussed. Students will spend several days each week in the neurosurgical operating room, observing and participating in cases including resection of brain tumors, epilepsy surgery, and treatment of hydrocephalus, spine disorders, and trauma. Students will also spend time seeing patients in the clinic; participating in inpatient rounds and consults; sitting in on discussions between faculty, patients, and families; and attending conferences such as pediatric brain tumor board and journal club. In addition to case-based learning, students will read several key readings and discuss these with faculty. At the conclusion of the two-week elective, students will understand the basic paradigms used in the treatment of common neurologic disorders in children. They will be familiar with surgical techniques used to treat these disorders, and they will become familiar with non-operative strategies employed in both the outpatient and critical care settings and techniques for communicating difficult news to patients.

SURG 5610. ACE: Ophthalmology. Ophthalmology is a wonderful specialty, combining both medical and surgical care of the eye and the periocular structures. The ACE will allow medical students to participate in care delivered at the Vanderbilt Eye Institute, the Nashville Veterans’ Affairs Hospital and the Vanderbilt University Hospital’s inpatient and emergency room. Through shadowing attendings and performing ophthalmic exams, it is expected at the conclusion of the ACE a medical student will be able to (1) perform a basic slit-lamp examination and a dilated fundus examination with a direct ophthalmoscope, (2) have a working understanding of the major etiologies of vision loss in the United States, including cataracts, glaucoma, age-related macular degeneration, diabetic retinopathy and amblyopia, and (3) accurately diagnose common ophthalmic issues, including corneal abrasions, conjunctivitis and acute-angle closure glaucoma. Additionally, the societal impact of loss of vision on a person’s activities of daily living, the reestablishment of independence following restoration of sight and the evolving role of the ophthalmologist providing this care should be appreciated by the medical student.

SURG 5611. ACE: General Orthopedics. This course provides hands-on exposure to all aspects of orthopaedic surgery. The student will be able to integrate medical and surgical knowledge in the care of patients with musculoskeletal diseases in both inpatient and outpatient settings. Emphasis will be placed on initial evaluation, preoperative and postoperative management as well as intraoperative surgical procedures. Students will act as part of a multi-disciplinary team during this course. Students are also allowed to share the call experience where they are independently
providing casting and splinting care and patient evaluations. Exposure to musculoskeletal oncology and adult orthopaedics is incorporated. Didactic sessions are held for one hour each morning prior to surgical cases or clinic during which the student will be able to integrate medical and surgical knowledge in the care of patients.

**SURG 5612. AI: Surgery, VAH.** Students in the Acting Internship in surgery at the Veterans Affairs Hospital can elect to spend time on general surgery, vascular surgery, cardiothoracic surgery, or a combination thereof. Students will function in a supervised environment and be expected to fulfill the role of a surgical intern, including caring for their own patients, writing orders, and having a role in the conduct of operations. Students will be exposed to the full range of clinical activities of each of these services, and they will also have the opportunity to participate in preoperative evaluation, intraoperative management, and postoperative care. The student will actively participate in a weekly clinic. Each service has a full complement of conference activities, which the student will attend. There will be close observation of the student’s activities by the house staff and the attendings. Weekly feedback will be provided for reflection. Students will have in-house overnight call at least four times during the four-week rotation and participate on morning ward rounds Saturday and Sunday twice during the four weeks. Workups, progress notes, and clinic notes will be read and feedback provided for the student’s reflection and improvement. The strengths of this ACE on VA Surgery include the residents and attendings, the active role of the student, the breadth of clinical exposure, and the personal coaching provided.

**SURG 5613. ACE: Surgery, VAH.** Students rotating on surgery at the Veterans Affairs Hospital can elect to spend time on general surgery, vascular surgery, cardiothoracic surgery, or a combination thereof. Students will be exposed to the full range of clinical activities of each of these services, and they will also have the opportunity to participate in preoperative evaluation, intraoperative management, and postoperative care. The student will actively participate in a weekly clinic. Each service has a full complement of conference activities, which the student will attend. There will be close observation of the student’s activities by the house staff and the attendings. Weekly feedback will be provided for reflection. Students will have in-house overnight call at least four times during the four-week rotation and participate on morning ward rounds Saturday and Sunday twice during the four weeks. Workups, progress notes, and clinic notes will be read and feedback provided for the student’s reflection and improvement. The strengths of this ACE on VA Surgery include the residents and attendings, the active role of the student, the breadth of clinical exposure, and the personal coaching provided.

**SURG 5614. ACE: Surgery Critical Care.** The Surgical Critical Care Advanced Clinical Elective provides students with a multidisciplinary approach to care of the critically ill surgical patient. The units are very active critical care facilities with state-of-the-art monitoring and support technology. The course content emphasizes a physiologic approach to the care of critically ill general, vascular, transplant, geriatric, oncology, and emergency surgical patients. Students will gain experience with invasive hemodynamic monitoring, mechanical ventilation, enteral/parenteral nutrition, surgical infectious disease, and management of vasoactive medications. Topics such as cost containment, resource utilization, and medical ethics are an integral part of daily intensive care management. The patient care service consists of a surgical or anesthesia attending physician, a surgical critical care fellow, mid-level surgical/anesthesia residents, and surgical interns. Other staff available in the unit includes clinical pharmacists, respiratory therapists, and nurse practitioners. Teaching rounds are made each morning with didactic lectures and case-discussions Monday-Thursday. Friday morning attendance of surgical grand rounds and resident teaching conference is mandatory. A course syllabus containing management protocols and educational objectives is provided to all registrants. Evaluation of the student’s performance is based on clinical knowledge, basic science application, integration of core concepts in learning throughout rotation. Mid-year and final evaluations of each student will be conducted by the critical care attendings, critical care fellow assigned to the unit, and the course director. This course fulfills the acute care requirement.

**SURG 5615. ACE: Vascular Surgery.** The field of Vascular Surgery has been markedly transformed over the last two decades, fueled by an explosion of technological advancement, research-supported clinical science development, and cross-disciplinary collaboration. Students enrolled in this ACE will experience a hands-on introduction to this rapidly evolving field by immersing themselves into the Vascular Surgery team at Vanderbilt Hospital. The engaged student can look forward to the prospect of caring for patients in the inpatient and outpatient settings, where he or she will learn about the various surgical manifestations and functional burdens imposed by atherosclerotic disease, aneurysmal disease, diabetes mellitus, and inherited disorders of the vascular and hematologic systems. As part of the care team, students may be asked to field consult requests from our affiliated services, and will have the opportunity to join the surgical staff in the operating theater to experience both open and endovascular surgery. By the end of this course, it is our sincere hope that the students develop an interest in pursuing a career in vascular surgery, or at least have a sound knowledge base that will help in the care of all aspects of adult medicine.

**SURG 5617. ACE: Colon and Rectal Surgery.** The Colorectal Surgery ACE focuses on the care of patients suffering from diseases and disorders of the colon, rectum and anus. This includes such diseases as colorectal cancer, anal cancer, inflammatory bowel disease, diverticulitis, colon polyps, and benign anorectal conditions. The goal of the rotation is to broaden the student’s understanding about the pathophysiology, clinical presentation, work-up and treatment of common colorectal diseases. The students will be exposed to all aspects of the care of the patient including evaluation in the clinic, pre-op teaching, operative management, post op care and discharge. Students will see a variety of surgical techniques including laparoscopic, open, and robotic cases as well as advanced endoscopic procedures and anorectal cases. Students will function as part of the colorectal team and will be assigned patients that they will follow throughout the duration of their hospital stay. They will be expected to participate on rounds as well as attend/present at the weekly colorectal surgery conference.

**SURG 5618. ACE: Hepatobiliary.** The hepatobiliary and liver transplant surgery rotation includes the full spectrum of benign and malignant disease of the liver, pancreas and bile ducts. This service allows exposure for rotating students to complex hepatobiliary anatomy and pathophysiology, including liver failure. Unique to this rotation is the opportunity to participate in organ procurements, a very popular operation amongst surgical students. Abdominal organ procurement offers unparalleled anatomic exposure to the abdomen and pelvis. Rotating students will participate directly in these operations and they have the right of first refusal on each procurement. As there is ample opportunity to see these operations, a waiting list is compiled for other students to travel for these operations, which are often off site. Students will have the opportunity to function as an integral member within the surgical resident clinical teams, as well as attend weekly clinics and teaching conferences, including Hepatobiliary Conference, Liver Transplant Selection Committee and Liver Team Walk Rounds. The course will focus on enhancing student clinical practice-based learning skills. Students will have the opportunity to broaden their understanding of the complex anatomy and pathophysiology of the liver, (2) learn the basic principles of multidisciplinary management of liver failure, (3) review the differential diagnoses and therapeutic strategies for the liver mass and (4) understand the numerous complications seen after hepatobiliary and liver transplant procedures. Additionally, students will not be expected to stay for overnight call on a rotating schedule. However, given the emergency nature of procurements and transplants, after hour effort is common, as dictated by the on-call attending and resident staff.

**SURG 5619. AI: GI/Lap Surgery.** The AI rotation of the GI/Lap service will expose the student to a broad variety of general surgical and advanced laparoscopic procedures. The student will be integrated into the four resident teams and will be expected to fully participate in activities-patient rounds, duties in the operating room, and all educational conferences. If desired, the student can choose to focus their clinic or OR time on a subset of the practice such as bariatric surgery, laparoscopic foregut surgery, or advanced endoscopic procedures and the faculty who perform them.

**SURG 5620. ACE: Neurological Surgery.** Neurosurgery is a fast-paced, challenging field dedicated to the comprehensive treatment of critically ill patients with neurologic diseases. It is an incredibly diverse specialty, incorporating treatment of children and adults suffering from CNS tumors, cerebrovascular disease, movement disorders, spine disorders, peripheral
nerve diseases, and trauma. Each student will spend their 4 weeks rotat-
ing through the 4 different neurosurgical services to gain a broad exposure to
the field. Students will take part in the care of inpatients, the workup of
consults, and the technical aspects of a variety of bedside and opera-
tive procedures. They will also attend several outpatient clinics and take
overnight call with the junior resident on a Q4 schedule. Students will par-
ticipate in career development sessions designed to prepare them for the
residency application process and will give several short presentations to
the clinical teams and the department throughout the rotation.

SURG 5621. ACE: Post-Surgical Critical Care. This ACE will expose
medical students to care of a broad range of postoperative surgical critical
care patients, including cardiothoracic, neurosurgical, oto-lyngological, ortho-
pedic, vascular, and general surgical patients. This course fulfills the acute
care requirement.

SURG 5623. ACE: General Surgery, STH. General and Vascular Surg-
ery require broad diagnostic and patient care skills, in addition to tech-
nical expertise. The student pursuing any surgical specialty should have
advanced experience in managing the wide spectrum of surgical pathology
and comorbid conditions seen on a tertiary surgical service. This course
offers additional exposure to pathology in disease processes ranging from
to sepsis, respiratory failure, renal failure, wound issues, as well as end of
life and palliative care. Students will have the opportunity to work with mul-
tiple attending preceptors and be a part of surgical resident teams, as well as
participate in general surgery and multidisciplinary vascular and surgical
oncology conferences. The course will focus on enhancing student clinical
practice-based learning skills. Students will have the opportunity scrub on
a wide variety of operations and take overnight call with experienced surgi-
cal residents, exposing them to the intricacies of patient care on a one on
one basis. Students will be expected to stay for overnight call at least four
times during the four-week rotation.

SURG 5625. ACE: Otolaryngology. The Otolaryngology ACE is a sur-
gical and medical course that offers immersion into the oldest medical
specialty in the United States. This course deals with disorders of the ear,
nose, and throat and involves the Head and Neck/Laryngology, Pediatric
Otolaryngology, Rhinology/Plastic Surgery, and Otology services. Re-
tations provide the clinical complexity of various head and neck pathologies
and explores medical and surgical treatment plans. The course will focus
on the diagnosis, treatment, and management of many specialty spe-
cific disorders as well as primary care problems associated with pediatric
and adult patients in the ambulatory, inpatient, and operating room setting.
Rotations will encounter disorders including ear disease and hearing loss,
head and neck cancer, voice and communication disorders, obstructive
sleep apnea, and airway abnormalities. The outpatient setting will enhance
and reinforce a thorough head and neck examination, including the ear
exam, and foster development of an Otolaryngologic assessment and
plan. Additionally, students will be able to be involved with the inpatient
otolaryngology team and aid in and observe operating room procedures.
Students will have a unique look into the complexities of this specialty and
become involved with the multi-disciplinary approaches to treatment with
other team members including: audiologists, speech pathologists, radiolo-
gists, pulmonary and gastroenterology physicians.

SURG 5628. ACE: Hepatobiliary. The hepatobiliary and liver transplan-
ture rotation includes the full spectrum of benign and malignant disease of
the liver, pancreas and bile ducts. This service allows exposure for rotat-
ing students to complex hepatobiliary anatomy and pathophysiology, includ-
ing liver failure. Unique to this rotation is the opportunity to participate in
organ procurements, a very popular operation amongst surgical students.
Abdominal organ procurement offers unparalleled anatomy exposure to
the abdomen and pelvis. Rotating students will participate directly in these
operations and they have the right of first refusal on each procurement.
As there is ample opportunity to see these operations, a waiting list is com-
plied for other students to travel for these operations, which are often off
site. Students will have the opportunity to function as an integral member
within the surgical resident clinical teams, as well as attend weekly clinics
and teaching conferences, including Hepatobiliary Conference, Liver Trans-
plant Selection Committee and Liver Team Walk Rounds. The course will
focus on enhancing student clinical practice-based learning skills. Students
will have the opportunity to (1) deepen their understanding of the complex
anatomy and pathophysiology of the liver, (2) learn the basic principles of
multidisciplinary management of liver failure, (3) review the differential diag-
noses and therapeutic strategies for the liver mass and (4) understand the
numerous complications seen after hepatobiliary and liver transplant proce-
dures. Additionally, students will not be expected to stay for overnight call on
a rotating schedule. However, given the emergency nature of procurements
and transplants, after hour effort is common, as dictated by the on-call
attending and resident staff. Also, additionally participate in the service much
as PGY1 interns do with the exception that they are closely supervised for
order writing and procedures. They are also given priority for elective cases
and procurements over students in the ACE. However, since interns on this
rotation do not often go to the OR for elective cases and this course as an
acting internship is designed to empower the student to act as an intern on
the service, operative experience is a secondary objective.

SURG 5630. ACE: Cardiac Surgery. The cardiac surgical service deals
with congenital and acquired heart disease, pulmonary vascular disease,
and anomalies of the arterial and venous systems in the chest in both
pediatric and adult patients. Students will have the opportunity to evaluate
patients in the clinic with complex vascular, valvular, and cardiac lesions
and understand their anatomy and physiology. They will be introduced
to cardiac ECHO, cardiac MRI, CT scans of the chest, and cardiac cath-
eterization by the attending surgeon. They will follow the patient to the
operating room where they will participate in the surgical repair and to
the CVICU and step-down unit for postoperative care. In the CVICU the
student will be introduced to the evaluation of hemodynamic parameters;
use of vasoppressors, dilators and antiarrhythmics; postoperative pacing,
ECHO and ventilator management. During the four-week course the stu-
dent may get the opportunity to participate in an aortic dissection repair,
ventricular assist device insertion, cardiac transplant, or organ retrieval.

SURG 5632. ACE: Thoracic Surgery. The Vanderbilt Thoracic Surgery
Advanced Clinical Experience will introduce the student to general thoracic
surgery including preoperative workup, basic thoracic surgery operative
skills, and postoperative care. This rotation will teach basic thoracic surgi-
cal and endoscopic techniques. The student will learn how to recognize
and care for thoracic surgery patients, including placement of chest tubes,
drainage of effusion, endoscopy, and participate in various thoracic sur-
gery operations.

SURG 5640. ACE: Urology. This ACE will encompass the care of the
surgery patients admitted to the Urology service. The student will be
expected to function as a member of the team at a supervised level for
patient management and communication with other health care providers.
This will include preparing the admission history and physical examina-
tion, entering orders, writing daily progress notes, presenting patients on
daily work rounds, participating in surgical procedures, and coordinating
discharge planning. Students will be additionally be given opportunity for
outpatient experiences in the clinics. Students will be expected to partici-
pate in select weekend rounds and assist with triage of consults for the
inpatient service.

SURG 5660. ACE: Pediatric Surgery. The Pediatric Surgery Advanced
Clinical Experience will allow students to hone their clinical skills in accu-
rate history taking, clinical assessment of children, developing an appro-
iate differential diagnosis and potential plan. Students will participate in
the operative management of these same patients and follow their post-
operative progress until discharge. Students will have the opportunity to
(1) improve their knowledge of the common pathologies encountered in a
pediatric surgical practice, (2) broaden their understanding of the surgical
management of these problems, and (3) gain first-hand experience with
the depth and breadth of a clinically busy pediatric surgical service. During
the rotation students will spend time with the team in clinic at least once
per week, in the operating rooms, on the wards with the interns and physi-
cian extenders and seeing new consults with the team. Additionally, ACE
students will be expected to stay for overnight call at least 3 times during
a 4-week rotation with at least 1 day over a weekend.

SURG 5665. ACE: Pediatric Surgery. The Pediatric Surgery Acting Intern-
ship will focus on honing the students clinical skills in accurate history
taking, clinical assessment of both acute and chronically ill neonates and
children, developing an appropriate operative (or non-operative) plan, par-
ticipation in the operative management of these patients and following
their post-operative progress until discharge. The AI student will have the opportunity to (1) improve their knowledge of the common and uncommon pathologies encountered in a pediatric surgical practice, (2) broaden their understanding of the operative and non-operative management of these problems, (3) gain first-hand experience with the depth and breadth of a clinically busy pediatric surgical service and (4) mentor younger students. During the rotation, students will spend time with the team in clinic, in the operating rooms, on the wards and seeing new consults on their own. Additionally, AI students will be expected to stay for overnight call at least 4 times during a 4-week rotation with at least 2 over a weekend.

SURG 5670. ACE: Surgical Oncology. The Advanced Clinical Experience (ACE) in Surgical Oncology offers students a broad and detailed clinical experience in the treatment of malignancies. Emphasis will be on the multidisciplinary management of a variety of malignancies including those of the liver and biliary tract, pancreas, gastrointestinal tract, retroperitoneum, breast, skin and soft tissue and endocrine systems. Students will be active participants both in the inpatient (including the operating room and floor) and outpatient settings and participate in several educational conferences including multidisciplinary tumor board, surgical oncology conferences and others and Vanderbilt University Hospital. Students will be expected to take overnight call four times during the four-week rotation.

SURG 5675. AI: Surgical Oncology. The Acting Internship (AI) in Surgical Oncology provides students with a broad but detailed clinical experience in the diagnosis and treatment of solid organ malignancies. Emphasis will be on the multidisciplinary management of a variety of malignancies including those of the liver and biliary tract, pancreas, gastrointestinal tract, retroperitoneum, breast, skin and soft tissue and endocrine systems. Students will be active participants both in the inpatient (including the operating room and floor) and outpatient settings and participate in several educational conferences including multidisciplinary tumor board, surgical oncology conferences and others and Vanderbilt University Hospital. Students will be expected to take overnight call four times during the four-week rotation. Highlights of the AI experience in Surgical Oncology will include increased responsibility with the goal of preparing the student for surgical internship, including being primarily responsible for their own patients, answering pages, writing orders under the supervision of residents, working up and presenting patients both in the inpatient and outpatient setting, and taking call which will include cross-covering of other services.

SURG 5680. ACE: Plastic Surgery. Plastic surgery is a broad field with subspecialties that include craniofacial, microsurgery, hand, breast reconstruction, burn, and aesthetics. Plastic surgeons treat patients of all ages and work on almost every part of the body from head to toe. During this advance clinical experience, you will have the opportunity to learn about the diagnosis and management of a wide variety of reconstructive and aesthetic problems. Learning opportunities with faculty and residents are abundant and you will get plenty of experience in both the operating room and the clinics.

SURG 5700. ACE: Oral and Maxillofacial Surgery. Oral and maxillofacial surgery is the clinical discipline that focuses on the management of diseases, deformities, injuries, and defects of the oral and facial structures. With elements of dentistry, medicine, anesthesia, and surgery, the ACE provides exposure to a wide array of conditions ranging from lesions and conditions of the oral cavity, odontogenic head and neck infections, cleft palate, oral/facial reconstruction, total temporomandibular joint replacement, complex facial fractures to congenital and acquired deformities of the jaws and facial bones. Students will be active participants in clinical and didactic activities. Practice-based learning and systems-based practice methods will be emphasized. Students will have the opportunity to (1) enhance their fund of knowledge in clinically relevant overlapping areas of dentistry/oral and medicine, (2) improve their working understanding of head and neck anatomy, (3) review common infections of the oral and head and neck region, (4) learn fundamental principles of head and neck reconstruction, and (5) participate in the delivery of clinic-based ambulatory anesthesia. Students will be expected to take facial trauma call.

SURG 5701. AI: Oral and Maxillofacial Surgery. This Acting Internship focuses on the management of diseases, deformities, injuries, and defects of the oral and facial structures. With elements of dentistry, medicine, anesthesia, and surgery, the AI provides exposure to a wide array of clinical conditions ranging from lesions and conditions of the oral cavity, odontogenic head and neck infections, cleft palate, oral/facial reconstruction, total temporomandibular joint replacement, complex facial fractures to congenital and acquired deformities of the jaws and facial bones. Students will be active participants in clinical and didactic activities. Practice-based learning and systems-based practice methods will be emphasized. Students will have the opportunity to (1) enhance their fund of knowledge in clinically relevant areas of dentistry/oral and medicine, (2) improve their working understanding of head and neck anatomy, (3) review common infections of the oral and head and neck region, (4) learn fundamental principles of head and neck reconstruction, and (5) participate in the delivery of clinic-based ambulatory anesthesia. Students will be expected to take facial trauma call.

SURG 5850. AI: Trauma. The trauma AI allows students to focus initially on major events, including central venous access, tube thoracostomies, bronchoscopy, advanced suturing techniques and operative management of the trauma patient. Expectations will focus on the complex management of patients including coordination of care with other subspecialties. Students will have the opportunity to (1) enhance their fund of knowledge in of diseases, injuries, and congenital and acquired deformities of the oral and maxillofacial regions, (2) improve their working understanding of head and neck anatomy, (3) review common infections of the oral and head and neck region and principles of surgical and pharmacologic infection management, (4) learn fundamental principles of head and neck reconstruction, (5) apply principles of facial trauma patient evaluation and facial fracture management, (6) participate in the delivery of comprehensive ambulatory oral surgical services, and (7) participate in the delivery of clinic-based ambulatory anesthesia and in the management of simulated anesthetic emergencies. Students will be expected to take facial trauma call. For students in the Oral Surgery Residency program only.

SURG 5930. AE: Preparation for Surgical Internship. The goal of this course is to arm fourth year medical students entering a surgical specialty with the skills and understanding needed to hit the wards as a resident. The curriculum for the course has been developed by the American College of Surgeons in conjunction with the Association for Surgical Education and Association of Program Directors in Surgery. These activities and sessions include mock pages, bedside procedures, operative anatomy using cadaveric dissections, basic open and laparoscopic skills, airway management and simulation scenarios, and will be led by some of Vanderbilt’s best clinical teachers. At the end of the course, students should feel prepared to enter a surgical internship and understand their own strengths and weaknesses as they prepare for surgical training.

SURG 6100. Special Clinical Study—Vanderbilt. Each student arranges an independent study with a mentor to complete a period of clinical work. Approval required.

SURG 7100. AWAY ACE: Surgery. Each student arranges an independent study with a mentor to complete a period of clinical work away from Vanderbilt. Approval required.

SURG 7150. Special Research Study—Non-VU. Each student arranges an independent study with a mentor to complete a period of research work away from Vanderbilt. Approval required.

Clinical Investigation

Courses leading to the Master of Science in Clinical Investigation

MSCI 5000. Drug and Device Development. This seminar-style course is designed to provide an overview of the drug and device development process. We will cover issues of drug discovery, pre-clinical drug development, Phase I through Phase IV human testing, device development, and the role of the FDA in regulatory affairs. First year. Summer. [3]

MSCI 5001. Grant Writing I. (Also listed as PUBH 5517.) Principles of scientific written and oral communication, with a focus on grant writing will be discussed. The principles of scientific grant writing will include how to write the background and significance, previous work, and methods sections.
Students will review grants submitted to public health service study sec-
tions, participate in a mock study section, and prepare a sample grant
application. Enrollment is limited. First year. Summer. [1]

MSCI 5002. Medical Writing for Clinical Investigators. This course
is designed to teach clinical investigators medical writing skills required
to publish scientific articles in peer-reviewed medical journals. Since can-
didates in the MSCI program are expected to complete their master’s
theses based on their research projects in the spring of year two, this
course is scheduled prior to this deadline to assist students in writing
their theses. Teaching will consist of demonstrations and discussions of how
to improve the writing quality using each student’s thesis-in-progress as
an example. Each student will be expected to write and revise his or her
master’s thesis as course work. No additional written assignments will be
required. Second year. Spring. [2]

MSCI 5003. Molecular Genetic and Genomic Medicine. The goal of this
course is to expose learners to the practical and core concepts of
genetics as well as provide knowledge on the various aspects of designing
a genetic/genomic study. Three thematic points guide the course: 1. Core
practical genetics/genomics concepts (a. The importance of Mendel-
dian inheritance, b. Basic principles of Molecular Genetics, c. Genome
sequencing and genetic research, d. Common variants and human dis-
 ease, e. Rare variants and human disease, f. Gene expression and human
disease, g. Pharmacogenomics, h. Personalized medicine, i. Ethical con-
sideration in genetic study design), 1. How to establish inter and intra institu-
tional genetic research collaborations), 2. Approaches to model common
and rare variants (a. BioVU, b. How to think about gene editing with your
favorite variant, c. How to think about animal modeling with your favor-
 ite variant) and, 3. Putting it all together (a. Success stories in genetic
research from physician scientists). First year. Spring. [4]

MSCI 5005. Case Studies in Clinical Investigation I. First year MSCI
students will present their project plans for class discussions. The format
will be in a studio design. Students will be presenting their MSCI projects
in the presence of three to four experts selected from VU faculty. It is
anticipated that the studio will take place prior to submission of the project
for IRB or CTSA application (if applicable). The students are expected
to initiate the studio process as soon as they are accepted in the program.
This course is graded pass/fail. First year. Fall. [1]

MSCI 5009. Biostatistics I. This course will teach modern biostatistical
skills. Students will use statistical software to learn data analysis meth-
ods using actual clinical research data sets. Students will also learn about
statistical power and sample size calculations using the software nQuery
Advisor. An emphasis will be placed on performing statistical analyses and
interpreting output. Commonly used statistical methods will be explained
as well as the techniques that experienced biostatisticians use to analyze
data. All students will be encouraged to bring a data film from their MSCI
project to class to stress hands-on learning with clinical research data.
First year. Fall. [4]

MSCI 5015. Biostatistics II. The primary focus of Biostatistics II is the
multivariable regression model which is the fundamental tool that research-
ers use for prediction, effect estimation, and hypothesis testing. This course
covers the most commonly used regression models (linear, logistic, ordinal,
time-to-event, and serial) plus general methods applicable to all regression
models such as restricted cubic splines, bootstrapping, multiple imputation
for missing data, model diagnostics, and validation. There is an emphasis on
aspects related to clinical and translational study design.

MSCI 5016. Research Skills. This course offers basic instruction and
practical advice on a variety of issues and skills related to the conduct of
clinical research, often with computer demonstrations. First or second
year. Fall, Spring. [1]

MSCI 5017. Clinical Scientist Career Seminars. Topics of discussion
will include academic “rules of the road,” time management, promotion/
tenure issues, grants management, and overall program evaluation. Can-
didates will hone their scientific communication skills through an annual
presentation at this forum. Fall, Spring. [1]

MSCI 5021. Master’s Research I. Completion of a mentored research
project is a required component of the MSCI program. The research must
be patient-oriented and involve direct measurements on patient-derived
samples or the use of investigational therapeutic or diagnostic techniques.
This course is graded pass/fail. [1]

MSCI 5022. Master’s Research II. Completion of a mentored research
project is a required component of the MSCI program. The research must
be patient-oriented and involve direct measurements on patient-derived
samples or the use of investigational therapeutic or diagnostic techniques.
This course is graded pass/fail. [3]

MSCI 5023. Master’s Research III. Completion of a mentored research
project is a required component of the MSCI program. The research must
be patient-oriented and involve direct measurements on patient-derived
samples or the use of investigational therapeutic or diagnostic techniques.
This course is graded pass/fail. [1-3]

MSCI 5024. Case Studies in Clinical Investigation II. This course is
designed to simulate a thesis defense. Overall, second-year MSCI stu-
dents are expected to give a presentation to the class on the progress of
their selected MSCI project or their project completed during the program.
The extent of the presentation will depend on the accomplishments made.
If requested, a studio format can be utilized. This course is graded pass/ fail.
Second year. Spring. [1]

MSCI 5025. Research Extension. This course allows for an extension on
the research project. [3]

MSCI 5028. Data Management. This course is designed to teach impor-
tant concepts related to research data planning, collection, storage and
dissemination. Instructional material will cover best-practice guidelines for
1) investigator-initiated and sponsored research studies, 2) single- and
multi-center studies, and 3) prospective data collection and secondary-
reuse of clinical data for purposes of research. The curriculum will balance
theoretical guidelines with the use of practical tools designed to assist in
planning and conducting research. Real-world research examples, prob-
lem solving exercises and hands-on training will ensure students are com-
fortable with all concepts. [1]

MSCI 5029. Research Ethics and Scientific Integrity. This course is a
systematic examination of the ethical concepts and standards of biomed-
ical science and research integrity. Its aim is to provide trainees in the bio-
medical sciences and clinical research a framework in which to recognize,
examine, resolve, and prevent ethical conflicts in their professional work.
First year. Summer. [1]

MSCI 5030. Epidemiology I. Introduction to epidemiology with an
emphasis on clinical practice. Includes use of data to study disease etiol-
ogy, prognosis and treatment. concepts of interpreting tests, predicting
outcomes, choosing treatments and reading medical literature empha-
sized. First year. Fall. [4]

MSCI 5033. Big Data in Biomedical Research I. Design and Con-
duct. The theoretical and practical challenges to be considered in design-
ning and conducting a high-dimensional experiment including Next Gen-
eration Sequencing (NGS), Genome-Wide Association Study (GWAS),
microRNA (miRNA), etc., will be presented. Topics to be discussed include
the specification of a primary objective, quality control and pre-process-
ing guidelines, the role of repetitability and reproducibility studies and the
means for their implementation, the type and assessment of sources of
variance, the choice of design strategy and design strengthening features,
and the considerations involved in sample size determination and number of
replications of the same sample.II. Analysis of High-dimensional Experi-
ments—Methods of analysis appropriate to various study objectives, class
discovery, class comparison, and class prediction will be presented. The
statistical and bioinformatic approach will be based on empirical use of
methodologies rather than formal algebraic knowledge, the emphasis on
understanding what the procedures do and applications to big data analy-
sis. Methods of data quality control evaluation and various visualization
tools will be discussed. Summer. [1]

MSCI 5044. Clinical Trials. Design and data analysis for clinical trials
in biomedical research. Primary topics include specification of objectives,
ethical guidelines, randomization, blinding, design options, sample size
determination and data analysis appropriate for non-standard designs
such as crossover, nested, factorial and group allocation designs. Other
topics include role of clinical trials in FDA drug approval process, meta-
analysis and management of clinical trial data. Emphasis is on practical
use of methods rather than formal statistical theory. Fall. [3]

MSCI 5091. BioVu Study Design. This is a practical course designed to
prepare students to conduct research using the de-identified version of
Vanderbilt’s electronic medical record (Synthetic Derivative, SD) and DNA
biorepository (BioVu). After completion of this course students will have
the skills to independently execute SD/BioVu projects and assist others
who wish to utilize the resource. Through lectures, demonstrations, and
hands-on workshops, students will develop competence in all aspects of
the BioVu research process, including project design, data extraction and
cleaning, and analysis. Students will also become familiar with practical
aspects of using BioVu, including administrative/regulatory requirements
and basic use of bioinformatics tools. Topics covered will include: overview
of the clinical data available in the Synthetic Derivative (SD), techniques
for defining phenotypes within the SD, working with the BioVu program-
mers; proper control definition; limitations of BioVu for research, available
geneic data, common problems with BioVu study design and how to
address them, dealing with race in BioVu, IRB approval procedures and
other RCR topics, and the BioVu application process. Students will have
access to a test set of 1000 BioVu participants in order to gain practical
experience in extracting useful research data from the SD. The course will
be M-Tu-F 12-1 in Light Hall. Two hours per week will be lecture/discus-
soon and one hour will be practicum involving hands-on experience with
BioVu. Students are expected to develop their own BioVu proposal during
this course. [Spring] [3]

MSCI 5099. Independent Study. Students may choose a topic for inde-
pendent study. This course is graded pass/fail. [1-5]

Audiology

Courses leading to the Doctor of Audiology

AUD 5216. Introduction to Billing and Coding for Audiology Ser-
ences. This course is an overview of coding and compliance requirements
for billing in an audiology practice. Topics include: managed care terms,
insurance contracting, billing terminology, Medicare, Medicaid, CPT, ICD
9, ICD 10, HCPCS, and modifiers. Spring. [1]

AUD 5227. Anatomy and Physiology of Hearing Mechanisms. A
comprehensive description of the anatomy and physiology of the periph-
eral and central auditory systems in normal and impaired populations.
Includes a clinically oriented review of neuroanatomy focused on the major
sensory and motor pathways. Fall. [3]

AUD 5233. Neuroscience. A comprehensive introduction to the field
of neuroscience from important molecules to cell function, neuronal sys-
tems, and cognition. Topics include the physiology of nerve cells, the
sensory systems of vision, audition and touch, the motor system, sleep,
consciousness, speech, and sexual behavior. Coverage of clinical topics
includes the chemical basis of the psychoses, diseases of the brain, and

loss in infants, children, and adults. Genetic bases of hearing loss, modes
of inheritance, characteristics of syndromic and non-syndromic hearing
losses. Collaboration with geneticists and genetic counselors. Recent
developments and issues in evaluating and managing patients with
genic hearing loss. Summer. [2]

AUD 5310. Measurement of Hearing. The theory and practice of
hearing measurement, with emphasis on routine clinical and screen-
ing audiometric techniques, testing environment, audiometric standards
and calibration, applied impedance measurements, and interpretation of
audiometric tests. Fall. [4]

AUD 5318. Educational Audiology and Aural Habilitation for Chi-
dren. A survey of approaches to aural rehabilitation for children. Specific
focus will be on intervention for children with hearing loss in educational
and other habilitative settings. Spring. [3]

AUD 5325. Pediatric Audiology. A survey of methods and procedures
used in the evaluation of the auditory function and management of neo-
ates, infants, and young children. Includes identification and intervention
procedures. There will be review of special populations of children with
hearing loss. Fall. [3]

AUD 5327. Hearing Loss and Speech Understanding. This course
examines various factors that may affect the speech understanding of per-
sons with hearing loss. The contribution to the unaided and aided speech
understanding of persons with hearing loss of (1) subject factors, such as
degree of hearing loss, and deficits in frequency and temporal resolution,
and (2) environmental factors, such as the level and type of background
noise, reverberation, and talker characteristics, will be examined. Methods
for predicting speech understanding will also be discussed. Spring. [3]

AUD 5328. Psychoacoustics. Psychoacoustic theory and methods. Audi-
tory perception in normal hearing and hearing impaired subjects. Spring. [3]

AUD 5332. Pathology of the Auditory System. A study of pathologies
involving the peripheral auditory system arising from genetic factors, dis-
ease, and trauma, with emphasis applied to presenting signs/symptoms,
and medical/audiological management. Fall. [3]

AUD 5337. Auditory Clinical Electrophysiology. This course will cover
basic concepts in electrophysiological and electromagnetic recordings
(e.g., electrocorticography, electric and magnetic field recordings, local
field potentials). Recording of both near and far field electrical
responses emitted by peripheral and central nervous system will be stud-
ed. Recording techniques and interpretation of conventional clinical evoked
potentials (e.g., electrocochleography, auditory brainstem response,
sonomotor responses, electrotechnology) will be covered. Special topics
will include: audiometric applications of these evoked potentials (e.g., for
infant hearing screening and special needs populations, and intraoperative
neurophysiological monitoring). There will be extensive laboratory practica
conducted within and outside the classroom. Spring. [3]

AUD 5339. Amplification I. Background and development of the design
of hearing aids, ear mold acoustics, electroacoustic characteristics, per-
formance standards and measurement techniques, clinical selection and

AUD 5340. Lab: Amplification I. Laboratory that stresses instruction
and practice in basic hearing aid techniques including Otoscopic exami-
nation, ear impressions, electroacoustic evaluation and probe microphone

AUD 5345. Amplification II. Advanced topics in amplification including
advanced probe microphone techniques, single and multi-channel compre-
sion systems, analog and digital signal processing, and current and
emerging prescriptive and fitting verification methods. Fall. [3]

AUD 5346. Vestibular Sciences I. This course offers an in-depth
approach to the basic assessment of the dizzy patient. Subject matter
will include; where the vestibular system assessment falls in the audiologi-
scope of practice, detailed anatomy and physiology of the peripheral and
central vestibular, ocular motor, and postural control systems; bedside
testing, introduction to both electrical and video techniques for record-
ing the vestibular reflex; case history and bedside assessment of the
dizzy patient, and the technique and interpretation of video and electro-
nystagmography. Students will be expected to conduct practica outside the
classroom. Fall. [3]

AUD 5347. Vestibular Sciences II. This course will focus on the descrip-
tion of advanced assessment techniques including whole body, yaw axis
sinusoidal harmonic acceleration testing and step testing, and techniques
for the assessment of the cottleth system including on and off-axis contribu-
tion, and both cervical and ocular vestibular evoked myogenic potentials.
A module will be taught on the topic of peripheral and central disease and
disorders affecting the vestibular system. Embedded in this module will be a
section describing the multidimensional assessment of falls risk, disequi-
rium of aging and the medical/surgical and non-medical management (i.e.,
vestibular rehabilitation) of vestibular system impairments. A final module will
focus on how results of the vestibular test battery form predictable patterns.
Students will be expected to conduct practica outside the classroom.
Prerequisite: Successful completion of Vestibular Sciences I. Summer. [3]
AUD 5350. Vestibular Sciences III: Sensory and Motor Control of Posture. This course will cover the neural mechanisms of postural control. Multisensory integration and biomechanics that contribute to static and dynamic posture will be explored. Normal and abnormal development, aging, and learning will be presented. The effects of pathology on postural control will be discussed. Technology including computerized dynamic posturography will be used to demonstrate concepts. Prerequisite: Successful completion of Vestibular Sciences I and II, or permission from the instructor. Fall. [2]

AUD 5353. Amplification III. Design and evaluation of auditory prostheses for listeners with hearing loss. Industrial audiology including testing, training, and intervention protocols. A discussion of noise levels, OSHA guidelines, noise-induced hearing loss, and hearing protection in work and leisure activities. Spring. [3]

AUD 5354. Cochlear Implants. This course covers basic principles of electrical stimulation of neural tissue, cochlear implant design, as well as the history of cochlear implants. Further it will cover current issues in the medical, audiological, speech/language, and educational management of adults and children with cochlear implants—emphasis on multidisciplinary team function. Prerequisite: AUD 5318. Spring. [3]

AUD 5355. Clinical Externship. Graded pass/fail. Fall [3], Spring [3], Summer [1, 1-3]

AUD 5359. Audiométric Instrumentation and Calibration. An introduction to fundamental concepts in electronics and computer science and to instrumentation used in the hearing clinic or research laboratory for producing, measuring, and analyzing audio signals. Standards and procedures for calibration measurements, with practical hands-on experience. Fall. [3]

AUD 5361. Family-Centered Counseling and Interviewing. Examines the helping relationship in the clinical process, counseling theory relative to audiology practices, and principles and methods of effective clinical interviewing and counseling. Summer. [2]

AUD 5363. Hearing and Aging. A survey of major concepts in gerontology, including demographics, psychosocial aspects of aging, biology of aging, and clinical conditions of the older adult. Physiological changes within the aging auditory system, and clinical issues in audiological assessment and intervention with older hearing-impaired patients. Fall. [3]

AUD 5365. Business and Financial Management. An overview of accounting practices, marketing, and operations management as they relate to management of an audiology practice. Topics discussed include financial reporting, budgeting, pricing, billing and coding, regulatory issues, and human resource management. Students are required to design an audiology practice and develop a business plan as part of this course. Spring. [3]

AUD 5367. Professional Issues and Ethics for Audiologists. Examines professional issues in audiology including malpractice, quality improvement, marketing, credentialing, diversity, and legislation. Emphasis will be given to issues of ethics and clinical integrity in the practice of the profession of audiology. Fall. [2]


AUD 5374. Overview of Intraoperative Monitoring. A basic introduction to intraoperative neurophysiologic monitoring, including observation time in the operating room. May Session [1]

AUD 5580. Introduction to Clinical Case Conference. This course introduces students to the weekly case conference where clinical case studies will be presented. Fall. [1]

AUD 5581. Capstone I. Capstone projects may take several forms including research-based investigations, evidence-based position papers, business plans, critical literature reviews with applications to clinical problem solving, grant proposals, development of clinical protocols based on published research findings, etc. In Capstone I, students will identify an appropriate capstone committee and define their capstone projects and submit and defend a capstone proposal. Fall, Spring, Summer. [3]

AUD 5582. Capstone II. In Capstone II, students will complete their capstone project. The capstone project culminates in an oral defense of a formal manuscript which has been submitted to the student’s capstone committee. Fall, Spring, Summer. [3]

AUD 5583. Practicum and Clinical Case Conference. This course includes attendance at weekly case conferences where clinical case studies will be presented. The grade for this class will include clinical performance and attendance. Fall, Spring. [3]

AUD 5584. Independent Practicum. This course allows students to continue work toward degree requirements. Fall, Spring, Summer. [6]

AUD 5586. Summer Practicum. This course includes attendance at weekly case conferences where clinical case studies will be presented. The grade for this class will include clinical performance and attendance. Summer. [3]

Education of the Deaf

Courses leading to the Master of Education of the Deaf

MDE 5207. American Sign Language I. This introductory course includes basic communication skills of American Sign Language and “contact” language (e.g., nonmanual markers, fingerspelling, numbers, basic vocabulary, classifiers), the sign system continuum, culture implications, and media resources available. Open to all Hearing and Speech students. Requires faculty approval. Fall only. [3]

MDE 5208. American Sign Language II. This is an intermediate course in American Sign Language that includes an in-depth look at the linguistics of ASL (e.g., morphology, syntax, phonology, and semantics) and current readings and research in the field. Prerequisite: One 3-hour, college level course in ASL. Requires faculty approval. Spring only. [3]

MDE 5308. Language and Literacy in Children with Hearing Loss. This course presents an overview of normal language acquisition and the challenges imposed by a hearing loss. A variety of methods and materials to develop oral and written language and reading will be included. Practical methods of assessment, supportive strategy development, and curricular adaptations for children with hearing loss will be explored. Summer. [3]

MDE 5312. Psychology and Culture of the Deaf. Presentation and discussion of significant historical and current issues relating to the deaf population. Primary focus will be on psychological development, educational/methodological models, and deaf culture. Although the principal focus is on the psycho/social and cognitive/intellectual development of deaf individuals through the lifespan, a general survey of other areas of exceptionality is made with emphasis on the implications for the deaf child with additional disabilities and/or special needs. Spring. [2]

MDE 5320. Introduction to Amplification for Infants and Children. Designed for deaf education and speech-language pathology students. Current issues and trends in conventional amplification for infants and children. Selection, fitting, verification, and validation of traditional amplification options will be addressed including directional vs. omnidirectional microphones, analogue vs. digital instruments, monaural vs. bilateral fittings, and real-ear measures vs. functional aided gain. Hearing aid retention, maintenance, and troubleshooting techniques are addressed. Fall. [1-2]

MDE 5322. Children with Hearing Loss and Additional Disabilities. A survey of methods, procedures, and observational techniques used in the identification and evaluation of children with physical, cognitive, and/or emotional disabilities. An interdisciplinary perspective informs the course with particular attention to identifying characteristics of special populations that are atypical of children with hearing loss. Summer. [3]

MDE 5354. Cochlear Implants. This course covers basic principles of electrical stimulation of neural tissue, cochlear implant design, as well as the history of cochlear implants. Further it will cover current issues in the medical, audiological, speech/language, and educational management of adults and children with cochlear implants—emphasis on multidisciplinary team function. Prerequisite: AUD 5318. Spring. [2]
MDE 5356. Internship/Externship: MDE/Specialty Track. A three-week, intensive, full-time clinical or classroom placement during the month of May in an auditory-oral environment designed specifically to meet the student’s individual interests and needs. Summer, Spring. [2]

MDE 5358. Field Experience in Deaf Education. Students will develop appropriate skills for providing services to children with hearing loss in group settings; will collaborate with professionals in audiology and speech/language pathology; will plan sessions for family-centered intervention emphasizing communication development or plan lessons; will prepare or review individual family service plans (IFSPs) or individual education plans (IEPs); will assess speech, language, listening, cognitive, motor, and social development of children; and will evaluate effectiveness of services. Fall, Spring [3], Summer [2].

MDE 5372. Seminar in Deaf Education. Supports student development of organizational skills that will facilitate the completion of requirements for the master’s degree in education of the deaf and the transition from graduate school to a profession in deaf education. Emphasis is placed on the development of a professional portfolio, a review of certification requirements, and skill development in job searching including resume writing and interviewing skills. Spring, [3].

MDE 5390. Curriculum and Methods for Deaf Children. Presentation and discussion of current issues, methods, and materials involved in providing successful educational programming for children with hearing loss both in special programs and in inclusionary settings. This includes the adaptation of regular curriculum and instructional procedures for students with hearing impairments. Focus is on assessment of academic skills and individualizing instruction. Students gain practical experience in planning, carrying out, and evaluating lessons and are exposed to a variety of educational materials and methods. Spring, [3].

MDE 5392. Teaching Children with Hearing Loss to Listen and Speak: Early Childhood Development. Theories of and methods for developing auditory perception and spoken language skills in deaf and hard-of-hearing children. The purpose of this course is to increase students’ skills in assessing and developing speech, auditory functioning, and phonologic awareness in deaf and hard-of-hearing children in early childhood development. Fall. [2].

MDE 5393. Educational Assessment for Children with Hearing Loss. The purpose of this course is to introduce students to effective assessment tools and strategies specifically for children with hearing loss. Students will become familiar with state testing protocols, and accommodations and modifications necessary for student success. Spring. [2].

MDE 5394. Educational Programming and Service Delivery for Children with Hearing Loss. The course will include planning, execution, and evaluation of Individualized Education Plan (IEP) parent meetings as they relate to young children with hearing loss. The focus of this class will be on two child/family case scenarios. Students will work in multidisciplinary teams to develop and implement IEPs to be conducted in the Center for Experiential Learning and Assessment (CELA). Finally students will review videotaped sessions of each case scenario to reflect upon their role and responsibilities as members of the IEP team. Summer. [1].

MDE 5584. Independent Practicum. This course allows students to continue work toward degree requirements. This course is graded pass/fail. Fall, Spring, Summer. [0].

MDE 5585. Independent Study and Readings in Deaf Education. Independent Study and Readings in Deaf Education. Fall, Spring, Summer. [1-3].

Speech-Language Pathology

Courses leading to the Master of Science (Speech-Language Pathology)

SLP 5235. Physiological Bases of Communication I. Term 1—the bases of speech production and perception relative to neuroanatomy, anatomy, physiology, acoustics, and acoustic correlates and sound features. Neural mechanisms of speech and language will be related to overall structure and function of the nervous system. Neurologic conditions related to speech and language disorders are surveyed. Fall. [3].

SLP 5236. Physiological Bases of Communication II. Term 2—the bases of speech production and perception relative to neuroanatomy, anatomy, physiology, acoustics, and acoustic correlates and sound features. Neural mechanisms of speech and language will be related to overall structure and function of the nervous system. Neurologic conditions related to speech and language disorders are surveyed. Spring. [1].

SLP 5240. Introduction to Clinical Practicum. This course is for first year, first semester MS-SLP graduate students. Topics covered will include professionalism, safety issues, components of therapy session and time management, data collection, behavior management, learning objectives/goal setting, implementing treatment plans, treatment approaches for various diagnoses. This course is graded pass/fail. Fall. [1].

SLP 5290. Child Language Impairments I: Nature. This course is the first in a three-course sequence on child language impairment. The focus of this course is on the characteristics of children with primary as well as secondary language impairment. Students will read the primary research literature (a) to learn skills for comprehending and interpreting the research literature, and (b) to gain knowledge on the linguistic and non-linguistic skills of subgroups of children with language impairment and children at risk for academic failure. In addition, an overview of the Individuals with Disabilities Education Act is provided. The lab component develops basic skills in language sample analysis. Fall. [2].

SLP 5291. Child Language Impairments II: Assessment. This course is the second in a three-course sequence on child language impairment. The primary focus is assessment of developmental and academic oral language skills, birth through high school, with a secondary focus on reading, writing, and intellectual assessment. Assessment measures include developmental scales, commercially published norm-referenced measures, criterion-referenced instruments, research-validated experimental measures, and progress monitoring tools. In addition, students will gain knowledge and skills in collaborating with families and teachers on assessment of children’s linguistic abilities. Students will develop knowledge and skills to select and implement appropriate assessment instruments, to interpret assessment findings for differential diagnosis and IDEA eligibility, for determination of child and family strengths and needs, and to apply assessment findings for describing present level of performance, writing IEP/IFSP goals and objectives, and planning intervention. The lab component of this course will focus on application and practice of assessment measures and interpretation of assessment findings for families and teachers. Fall. [2].

SLP 5292. Child Language Impairments III: Intervention. This course is the third in a three-course sequence on child language impairments. The focus is evidence-based interventions that develop linguistic skills, primarily preschool through high school. The primary focus is on oral language skills, but literacy skills will be addressed as well (emergent literacy, decoding, spelling, reading comprehension, written expression). Intervention methods will include direct interventions with children as well as collaborative interventions delivered in conjuction with teachers and families. Students will learn to comprehend and interpret intervention research, to apply research to practice and explain the evidence base for specific clinical decisions, and to understand IDEA as it relates to school-based intervention. The lab component of the course focuses on the implementation of specific intervention strategies, procedures, and programs. Spring. [2].

SLP 5301. Acoustics and Perception of Speech and Speech Disorders. An examination of the processes of speech production, acoustics, and perception. Emphasis on relevant literature and research techniques in speech science. Fall. [3].

SLP 5304. Child Language Acquisition. The components and processes of normal language development. Relations between language acquisition and social and cognitive aspects of child development as well as literacy development. Survey of developmental psycholinguistic research. This course is appropriate for graduate students with or without previous course work in language development. Fall. [3].

SLP 5305. Clinical Principles and Procedures. Presentation and demonstration of clinical principles and procedures applicable in communication sciences and disorders. Fall. [2].
SLP 5311. Stuttering. Significant research in the field of stuttering, with emphasis on etiology and therapy. The management of fluency disturbances. Spring. [3]

SLP 5314. Articulation Disorders and Clinical Phonetics. The etiology, evaluation, and management of articulatory defects in children and adults. Prerequisite: Consent of instructor. Fall. [3]


SLP 5317. Traumatic Brain Injury. Pathophysiology of traumatic brain injury in children and adults; unique and common sequelae, the evaluation and treatment of cognitive/communicative deficits, and special problems of the population. Prerequisite: 5300 or 5331 or consent of instructor. Summer. [2]

SLP 5319. Dysphagia. The study of the normal and disordered swallow in pediatric and adult populations. Anatomy and physiology, videofluoroscopic and other assessment procedures, as well as various treatment alternatives and techniques are included. Fall. [3]

SLP 5323. Communication in Autism Spectrum Disorders. The course addresses basic theories and principles associated with communication assessment of and intervention for children with Autism Spectrum Disorders. Auditory characteristics, causative factors, classroom structure, behavior management, communication strategies, social and peer interaction, and family-focused practices are also reviewed. This class also will provide an overview of typical social, play, and linguistic development compared to the features and behavioral characteristics of autism spectrum disorders (ASD). Fall. [2]

SLP 5324. Feeding and Swallowing Disorders in Children. This course focuses on the assessment, diagnosis, and management of dysphagia in children including the role of the speech-language pathologist and multidisciplinary and family-centered, family-supported management. Prerequisite: SLP 5319. Spring. [1]

SLP 5326. Speech Disorders in Craniofacial Anomalies. The etiology, diagnosis, and management of speech defects associated with craniofacial anomalies, with major emphasis on cleft palate. Summer. [1]

SLP 5331. Aphasia. The study of aphasia in adults, including the neuroanatomical basis, etiologies, symptomatology, assessment, differential diagnosis, and treatment. Spring. [3]

SLP 5335. Augmentative and Alternative Communication. This course will cover the theory, rationale, and methods for use of augmentative and alternative communication (AAC) systems with patients with physical, intellectual, and/or cognitive disabilities. Students will be exposed to various low- and high-technology AAC systems and learn how and when to apply each in the treatment of patients with complex communication needs. Fall. [2]

SLP 5336. Voice Disorders. Theories of voice production, with emphasis upon underlying mechanisms that cause vocal defects. Procedures for group and individual management. Summer. [2]

SLP 5338. Research Methods in Communicative Disorders. Research techniques and procedures. Analysis of research examples from the literature. Study of design of experiment, data collection, statistical analysis, and presentation of research findings. Fall. [1]

SLP 5355. Clinical Internship/Externship. Sequence of clinical practicum placements over five semesters for speech-language pathology majors in clinical track. Designed to meet supervised practicum requirements for eventual certification by American Speech-Language-Hearing Association. Sequence of initial part-time internship placements in campus and other local facilities, followed by a full-time externship placement at one or two selected sites throughout the country or abroad. Spring, Summer. [6]

SLP 5357. Professional Issues in Communication Disorders. Examines various professional issues within the fields of speech-language pathology and audiology. For example, ethics, malpractice, quality improvement, marketing, reimbursement, multicultural sensitivity, and federal legislation. Spring. [1]

SLP 5360. Voice Specialty Track Acute Care Experience. This course is designed to expose students to clinical practice in an acute care setting as it pertains to voice and upper airway disorders. Students will observe and practice diagnosis and treatment of communication and swallowing disorders in patients with laryngectomy and other head and neck cancers, in patients with tracheostomy and on ventilators, and with other populations as available. Students will have the opportunity to provide some direct patient care. This course is graded pass/fail. Summer. [1]

SLP 5361. Family-Centered Counseling and Interviewing. Examines the helping relationship in the clinical process, counseling theory relative to speech-language pathology practices and principles and methods of effective clinical interviewing and counseling. Spring. [1]

SLP 5378. Advanced Voice Instrumentation and Lab. This advanced seminar will discuss the theoretical foundations and practical applications of instrumentation and technology in the assessment and treatment of voice and voice disorders. The focus will be on the development of advanced skills and training in the use of instrumentation and technology in research and clinical practice. Summer. This course is graded pass/fail. [1]

SLP 5388. Independent Study/Readings in Speech Pathology. Fall, Spring, Summer. [Variable 1-3]

SLP 5391. Advanced Voice Research and Rehabilitation. This advanced seminar will discuss historical and current research in the assessment and treatment of voice disorders. Emphasis will be placed on understanding the theoretical basis of clinical practice in voice and applying standards of evidence-based practice to evaluating therapeutic methods. Prerequisite: Enrolled as master’s degree student in Hearing and Speech Sciences Program. This course is graded pass/fail. Fall. [1]

SLP 5397. Speech-Language-Literacy Seminar. Course limited for enrollment to graduate speech-language pathology master’s students who are enrolled in the School Speech-Language Pathology Specialty Track. Topics vary each semester; a two-year curriculum of topics prepares students for school-based practice of speech-language pathology.

SLP 5583. Practicum and Clinical Case Conference. This course includes attendance at weekly case conferences where clinical case studies will be presented. The grade for this class will include clinical performance and attendance. Fall, Spring, Summer. [1]

SLP 5584. Independent Practicum. This course allows students to continue work toward degree requirements. This course is graded pass/fail. Fall, Spring, Summer. [6]

SLP 5587. Advanced Clinical Practicum/Case Conference. This course includes attendance at weekly case conferences where clinical case studies will be presented. It reflects additional load of clinical training. The grade for this class will include case conference attendance as well as clinical performance and attendance. Prerequisite: 4 hours of SLP 5583. Spring. [3]

SLP 7999. Master's Thesis Research. [Formerly SLP 5369] Master’s Thesis Research. This course is graded pass/fail. Fall, Spring, Summer. [6]

Laboratory Investigation

Courses leading to the Master of Laboratory Investigation

MLI 5010. Lab Theory I. [Formerly MLI 1010] This is a lecture and hands-on course designed for M.L.I. students and covers methods for the production, detection, molecular biological and immunological characterization, purification, and conjugation (e.g., to beads, biotin, dyes, enzymes, etc.) of recombinant proteins and antibodies for research use. Fall, Spring, Summer. [4]

MLI 5011. Lab Theory II. [Formerly MLI 1011] This is a lecture and hands-on course designed for M.L.I. students and covers methods for the production, detection, immunological characterization, purification, conjugation (e.g., to beads, biotin, dyes, enzymes, etc.), and assay development of hybridoma monoclonal antibodies for research use. Fall, Spring, Summer. [4]
MLI 5012. Lab Theory III. Lab Theory III (2 didactic credits) is a semester-long lecture and hands-on, project management course designed to teach students how to select, characterize and/or modify antigen-specific recombinant antibodies for research, diagnostic or therapeutic use. Data stemming from Lab Theory III projects should address basic research or medical needs and be suitable for publication as a peer-reviewed article in a scientific journal.

MLI 5013. Lab Theory IV. Lab Theory IV (2 didactic credits) is a semester-long lecture and hands-on course designed to teach students technical writing skills and the formalities needed to submit manuscripts for publication that describe projects and project outcomes. Students participating in projects in which manuscripts are accepted for publication will be listed as first author or as a co-author, subject to level of participation as determined by the course instructor.

MLI 5040. Responsible Conduct in Research. [Formerly MLI 1040] This required course includes formal lectures and small group discussion on a range of issues encountered in research activities. Included are responsibilities of the investigator and the university to the federal government; scientific misconduct; ethical use of animals in research; ethics of publication, lab management, and grant writing. Summer. [0]

MLI 5020. Research Project. [Formerly MLI 3020] This course is designed for students who choose the modified research track. Students will conduct research and present their research formally, but a thesis will not be a requirement. Research must be conducted outside of one’s job requirements. Fall, Spring, Summer. [0-3]

MLI 6025. Independent Study. [Formerly MLI 3025] This course allows a student to pursue individualized professional research or training goals. Fall, Spring, Summer. [0-4]

MLI 6030. Training and Techniques I. [Formerly MLI 3030] This course is designed for students with a strong academic/research background who are strengthening their laboratory techniques. Students will conduct laboratory research on a project designed by a highly skilled faculty/research scientist preceptor. Includes technical instruction, critical data analysis, experimental design, and literature review. Fall, Spring, Summer. [0-6]

MLI 6031. Training and Technique Modules: Microscopy. [Formerly MLI 3031] Eight-week modules conducting laboratory research on a project designed by a faculty preceptor. Includes technical instruction, critical data analysis, experimental design, and literature review. Summer. [0-3]

MLI 6032. Training and Technique Modules: RT-PCR. [Formerly MLI 3032] Eight-week modules conducting laboratory research on a project designed by a faculty preceptor. Includes technical instruction, critical data analysis, experimental design, and literature review. Spring. [0-3]

MLI 6035. Training and Techniques II. [Formerly MLI 3035] This course is designed for students with a strong academic/research background who are strengthening their laboratory techniques. Students will conduct laboratory research on a project designed by a highly skilled faculty/research scientist preceptor. Includes technical instruction, critical data analysis, experimental design, and literature review. Fall, Spring, Summer. [0-6]

MLI 6040. Training and Technique Modules: Fluorescence Activated Cell Sorting. [Formerly MLI 3040] Students will learn basic to advanced techniques for using the most advanced Flow Cytometers in use today. This course will include some history of the technology as well as the Einsteinian principles that are the foundation of this technology while practically applying the lessons they learn first-hand on instruments in the Flow Cytometry Core lab. There will be two classes per week for eight weeks culminating in the challenge of applying what students have learned to diagnose and repair a non-functional cytometer. Spring. [0-2]

MLI 6041. Training and Technique Modules: Immunohistochemistry and Immunofluorescence. [Formerly MLI 3041] Immunohistochemistry (IHC) and immunofluorescence (IF) is a lecture and hands-on techniques course designed to teach students the principles and procedures needed to conjugate antibodies to biotin, dyes and enzymes and to use conjugated antibodies to detect antigens present in tissue samples at the microscopic level. [2]

MLI 7999. Thesis Research and Defense. [Formerly 3010] This course is designed for students who choose the thesis track and will develop a research project and thesis under the direction of a mentor. Fall, Spring, Summer. [1-12]

Medical Physics
Courses leading to the Doctor of Medical Physics and the Master of Science in Medical Physics

Diagnostic Radiology

RAMD 5301. Medical Physics Seminar I. Topics in medical imaging, techniques and applications. Fall, Spring. [1]

RAMD 5313. Clinical Diagnostic Physics. Instrumentation and applications of physics to clinical diagnostic imaging procedures including radiographic and fluoroscopic x-ray, CT, MRI, nuclear medicine, and ultrasound. Fall. [3]

RAMD 5317. Laboratory In Clinical Diagnostic Physics. Laboratory in the application of principles, techniques, and equipment used in radiographic and fluoroscopic x-ray, CT, MRI, nuclear medicine, and ultrasound. Fall. [2]

RAMD 5331. Physics of Medical Imaging. Physical, mathematical, and signal processing concepts associated with medical image formation and analysis. Introduction to techniques used to generate medical images using ionizing radiation, non-ionizing radiation, and sound waves. Medical imaging modalities to be discussed include general radiography, Computed Tomography, Nuclear Medicine (SPECT and PET), Magnetic Resonance, and Ultrasound. Spring. [3-6]

RAMD 5390. Master’s Independent Study (Diagnostic). Introductory problem solving topic in diagnostic medical physics including data taking, analysis, and write-up. [1-2]

RAMD 5391. Medical Physics Diagnostic Practicum I. Experience and training in a diagnostic physics clinical setting; instrumentation methodology, calibration, and quality assurance. This course also includes diagnostic radiology patient interaction, clinical conference attendance, and review of imaging techniques in radiology. [1-4]

RAMD 5392. Medical Physics Diagnostic Practicum II. Experience and training in a diagnostic physics clinical setting; instrumentation methodology, calibration, and quality assurance. This course also includes diagnostic radiology patient interaction, clinical conference attendance, and review of imaging techniques in radiology. [1-4]

RAMD 5393. Doctoral Independent Study I. Advanced problem solving topic in diagnostic medical physics including literature survey, data taking, analysis, and manuscript submission. [1-3]

RAMD 5394. Doctoral Independent Study II. Advanced problem solving topic in diagnostic medical physics including literature survey, data taking, analysis, and manuscript submission. [1-3]

RAMD 5395. Medical Physics Clinical Rotations I. Advanced experience and clinical training in a diagnostic radiology department setting; instrumentation (methodology and calibration), quality assurance, and problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMD 5396. Medical Physics Clinical Rotations II. Advanced experience and clinical training in a diagnostic radiology department setting; instrumentation (methodology and calibration), quality assurance, and problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMD 5397. Medical Physics Clinical Rotations III. Advanced experience and clinical training in a diagnostic radiology department setting; instrumentation (methodology and calibration), quality assurance, and
problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMD 5401. Medical Physics Seminar II. Topics in medical imaging, techniques and applications. [1]

Therapeutic Radiology

RAMT 5248. Radiation Biophysics. Response of mammalian cells and systems to ionizing radiation, the acute radiation syndromes, carcinogenesis, genetic effects, and radiobiological basis of radiotherapy. Fall. [2]

RAMT 5301. Medical Physics Seminar I. Radiotherapy treatment techniques and current methodologies in clinical therapy physics. Fall. [1]


RAMT 5311. Clinical Therapy Physics I. Instrumentation and application of physics to clinical radiotherapy procedures, equations for absorbed dose calculations, phantoms, methodologies in computerized treatment planning, and introduction to the special techniques of IMRT, RAPID ARC, and stereoradiosurgery. Fall. [3]

RAMT 5312. Clinical Therapy Physics II. Photon and electron beam algorithms for dosimetry calculations. Methodologies in three-dimensional treatment planning with specific applications to radiotherapy. Spring. [3]

RAMT 5314. Clinical Therapy Physics: Lab I. Introductory laboratory applications of physics to clinical radiotherapy procedures, experience with equipment in a modern clinical radiotherapy environment, and methodology and techniques for the verifications of simulated clinical procedures. [2]

RAMT 5315. Clinical Therapy Physics: Lab II. Advanced laboratory applications of physics to clinical radiotherapy procedures, experience with radiotherapy physics equipment including measurement of absorbed dose using multiple dosimetry systems and techniques for the quality assurance verification of special radiotherapy clinical procedures. [2]

RAMT 5316. Brachytherapy Physics. Instrumentation and applications of physics to clinical brachytherapy procedures, equations for absorbed dose calculations including TG-43, methodologies in computerized treatment planning, and introduction to special techniques. [3]

RAMT 5390. Master's Independent Study (Therapeutic). Introductory problem-solving topic in therapy medical physics including data taking, analysis, and write-up. [1-2]

RAMT 5391. Medical Physics Therapeutic Practicum I. Experience and training in a radiotherapy physics clinical setting; treatment planning, instrumentation calibration, and quality assurance. This course also includes radiotherapy patient interaction, clinical conference attendance, and review of treatment techniques in radiation oncology. Fall, Spring, Summer. [1-4]

RAMT 5392. Medical Physics Therapeutic Practicum II. Experience and training in a radiotherapy physics clinical setting; treatment planning, instrumentation calibration, and quality assurance. This course also includes radiotherapy patient interaction, clinical conference attendance, and review of treatment techniques in radiation oncology. Fall, Spring, Summer. [1-4]

RAMT 5393. Doctoral Independent Study I. Advanced problem solving in therapy medical physics including literature survey, data taking, analysis, and manuscript submission. [1-3]

RAMT 5394. Doctoral Independent Study II. Advanced problem solving in therapy medical physics including literature survey, data taking, analysis, and manuscript submission. [1-3]

RAMT 5395. Medical Physics Clinical Rotations I. Advanced experience and clinical training in a radiation oncology department setting; treatment planning, instrumentation calibration, quality assurance, and problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMT 5396. Medical Physics Clinical Rotations II. Advanced experience and clinical training in a radiation oncology department setting; treatment planning, instrumentation calibration, quality assurance, and problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMT 5397. Medical Physics Clinical Rotations III. Advanced experience and clinical training in a radiation oncology department setting; treatment planning, instrumentation calibration, quality assurance, and problem solving. For third- and fourth-year doctoral students. Fall, Spring, Summer. [3-6]

RAMT 5401. Medical Physics Seminar II. Topics in clinical therapy physics, techniques and application. Fall. [1]

Public Health

Courses leading to the Master of Public Health

PUBH 5501. Epidemiology I. This course focuses on measures of disease frequency and association, observational study design, and diagnostic and screening tests. The course reviews the use of these tools and the role of epidemiology in measuring disease in populations, estimating risks, and influencing public policy. Study designs reviewed include cross sectional, cohort, case-control, and cohort studies. This course is required for all students in the M.P.H. Program. Enrollment is limited due to space restrictions, with priority given to global health students in the M.P.H. Program.

PUBH 5502. Biostatistics I. This course addresses basic concepts and methods of biostatistics, including data description and exploratory data analysis, study design and sample size calculations, probability, sampling distributions, estimation, confidence intervals, hypothesis testing, non-parametric tests, analysis of continuous, categorical, and survival data, data analysis for cohort and case-control studies, relative risk and odds ratio estimation, and introduction to linear and logistic regression. This course is required for students in the M.P.H. Program. Enrollment is limited. Fall. [4]

PUBH 5506. Epidemiology II: Non-randomized Study Design. This course addresses the design of non-randomized studies and factors that are important in design selection. This includes the design of cohort studies, prospective and retrospective cohort studies, assembly and follow-up of the cohort, exposure measurement, outcome ascertainment, confounders, effect modification, calculation of measures of occurrence and effect, summary of multivariate statistical analyses for cohort studies; the case-control study, conditions necessary for validity of the case-control study, selection of controls, sources of bias in case-control studies, and multivariate analysis; as well as the ecological study, including when to use and when to avoid. The course includes didactic lectures and critical reading of important epidemiologic studies from the current medical literature. This course is required for students in the Epidemiology track of the M.P.H. Program. Prerequisite: Epidemiology I, Biostatistics II, Clinical Trials, or approval of instructor. Enrollment is limited due to space restrictions, with priority given to students in the M.P.H. and M.S.C.I. programs.

PUBH 5509. Biostatistics II. This course addresses modern multivariate analyses based on the concept of generalized linear models. This includes linear, logistic, and Poisson regression, survival analysis, fixed effects analysis of variance, and repeated measures analysis of variance. The course emphasizes underlying similarity of these methods, how to choose the right method for specific problems, common aspects of model construction, and the testing of model assumptions through influence and residual analyses. This course is required for students in the Epidemiology and Health Policy tracks of the M.P.H. Program. Prerequisite: Biostatistics I or consent of the instructor. Enrollment is limited due to space restrictions, with priority given to students in the M.P.H. Program.

PUBH 5512. Decision Analysis in Medicine and Public Health. This course provides an overview of quantitative decision making with a dominant focus on quantitative techniques, using clinical and economic endpoints and their role in clinical strategies of care and health policy. Topics include: cognitive heuristics, Bayes' theorem, ROC analysis,
the study of diagnostic tests, meta-analysis, health states and utility measurement using expected value decision making, decision tree analysis, Markov processes and network simulation modeling, quantitative management of uncertainty, cost theory and accounting, cost-effectiveness and cost-utility analysis.

PUBH 5516. Public Health Practice. Public Health Practice will introduce students to key topics, concepts and methods in Environmental Health and Public Health Surveillance. Basic environmental epidemiology, use of evidence in policy and practice, along with an overview of the main environmental exposures will be explored. This course also examines an overview of public health surveillance as a lens to public health practice, in terms of how public health programs are organized, financed, and operated and what surveillance data are available to inform specific programs. Public health practitioners and policy-makers who plan, implement, and evaluate infectious disease, chronic disease, injury, and disability prevention and control programs have a need for reliable information about the status of these health problems among the populations they serve. Surveillance systems provide information for action. Analyzing, interpreting and using public health surveillance data inform the design, operation, and delivery of public health programs and target public health action and disease control. Public health surveillance is the ongoing process that public health agencies use to collect, manage, analyze, interpret and disseminate this information. We will review basic approaches to public health surveillance, including disease reporting regulations and notifiable diseases, surveillance for infectious diseases, chronic diseases, and adverse events, uses of surveillance data, and how surveillance data can inform public health program, policy, and practice. The course will be taught by a multidisciplinary group of faculty using didactic and interactive elements of instruction.

PUBH 5517. Grant Writing. This course provides a foundation in grant writing for the early career scientist or public health practitioner. It includes seven core sessions, nine elective sessions (from which students must choose at least four), and a mock grant review experience. Core topics include an overview of funding agencies and award mechanisms, as well as how to identify funding opportunities, plan an application, construct an impactful research plan, develop a budget, and succeed at grantsmanship. Elective sessions discuss applying for specific types of grants including career development, global health, health policy, and programmatic awards; VUMC institutional awards and resources; VA grants; NIH biosketch development; research mentorship; and training in the responsible conduct of research. Students will also learn how grants are reviewed and scored, and participate in a mock grant review, choosing either career development award applications or programmatic grants. Enrollment is limited to students in the M.P.H. and M.S.C.I. programs, or by permission of the instructor.

PUBH 5518. Research Ethics. This course presents issues in the responsible conduct of research, including ethics, data management, research fraud, academic misconduct, and conflict of interest. The course covers federal and institutional guidelines regarding research in human and animal subjects. Topics include vulnerable populations in research, confidentiality, and the Institutional Review Board (IRB). The course is required for students in the Epidemiology and Health Policy tracks of the M.P.H. Program. Enrollment is limited to students in the M.P.H. and M.S.C.I. programs, or by permission of the instructor.

PUBH 5520. Introduction to Health Policy. The aim of this course is to introduce students with an overview of the U.S. health care system and key features of its financing and delivery. We will discuss the strengths and weaknesses of our health care system, historical trends, and how we compare to other countries. Moreover, we will discuss the major components of the Affordable Care Act and implementation challenges going forward. Drawing on materials from different academic disciplines, including economics, political science, and sociology, the course will place particular emphasis on analytic approaches to evaluate policy impact. The course will address a range of topics, including the structure of the delivery system, drivers of spending growth, quality of care, and long-term care. No disciplinary background is assumed, nor is any special familiarity with the field of health care required.

PUBH 5521. Survey Research Seminar. The Survey Research Seminar is a didactic and participatory graduate-level class. It is designed to introduce key concepts and skills in survey methodology and the application of those skills to public health research. The course includes content on survey modes, sampling, questionnaire development, and survey implementation. The student will develop a research question, recruitment materials, and a short questionnaire based on the theory and skills learned in the course. This course is required for students in the M.P.H. Program.

PUBH 5522. Qualitative Health Research Methods I. This course is designed to provide an introduction to qualitative research methods, with a focus on research in health behavior, health care delivery, and sociocultural norms that impact health and well-being, although these methods can be applied easily to other arenas. The primary skills we will develop include techniques of the case study method; including interviews, focus groups, and observation. Introductions to mixed methods will also be included. We will also consider strategies for validity and reliability, and the relevance of standard evaluative criteria such as objectivity, neutrality, and generalizability. This course is required for students in the M.P.H. Program.

PUBH 5523. Qualitative Health Research Methods II. This course is an extension of the one credit hour Qualitative Health Research Methods I course. During this course, students will pilot, refine, and employ their own qualitative interview guide to collect qualitative data. Students will receive qualitative data analysis training and will undertake to analyze the data from their pilot. The final project will include a write-up of the methods, data analysis, and discussion of findings. This course is elective for students in the M.P.H. Program. Prerequisite: Qualitative Health Research Methods I.

PUBH 5524. The Science of Health Behavior. This course will provide an overview of social and behavioral science theories that are currently used to (a) understand health behaviors; and (b) guide the development of interventions to prevent, reduce, or eliminate major public health problems. We will also explore how technologies (i.e., patient portals, mobile devices, and the Internet) are used to promote health behaviors, disparities in the performance of health behaviors, and how behavioral interventions attempt to address and reduce these disparities. This course is required for all students in the M.P.H. Program.

PUBH 5525. Health Economics. This course is intended to survey the major topics in Health Economics. Each class is organized around a topical theme: those themes include health reform, health insurance, health promotion and disease prevention, and the health care workforce. Each theme will be approached from an economic perspective using recent articles from the literature. This course is required for students in the Health Policy track of the M.P.H. Program.

PUBH 5526. Global Health Project Development. This course focuses on development of the individual student’s M.P.H. practicum and thesis including the identification of a key global health question and design of a suitable project to address the question. Each student will complete a relevant skill-process activity, a draft of his/her practicum agreement, and a project development concept paper. Enrollment is limited to students in the M.P.H. Program.

PUBH 5527. Protocol Development I. This course is designed to prepare students to plan and conduct an independent thesis research project. Students will strengthen their ability to assess whether a research strategy appropriately addresses study questions, with an emphasis on evaluating data sources, study population, measurement, and analysis approach. They will also develop management and logical skills necessary for conducting public health research. Enrollment is limited to students in the M.P.H. Program.

PUBH 5528. MPH Project Extension. Fall, Spring, Summer. [0] Staff.

PUBH 5530. Protocol Development II. This course focuses on development of the individual student’s research protocol. Each student will present the background, methods, and limitations of their proposed research design in class, and complete the research protocol for the M.P.H. master’s thesis. Enrollment is limited to students in the M.P.H. Program.

PUBH 5536. Public Health Practicum. Required as part of the M.P.H. Program, the public health practicum is intended to give students the opportunity to develop practical skills and competencies in public health practice settings.
PUBH 5538. Health Services Administration: Program and Policy Evaluation. This course addresses the evaluation of changes in the health care delivery system, either through programs specifically implemented in order to achieve such changes or through changes in health care delivery/financing policies. The primary design--before/after, concurrent/retrospective control, interrupted time-series--and their strengths and limitations. The course includes didactic lectures and small group critical reading/presentation of current program/policy evaluations published in leading medical journals. This course is required for students in the Health Policy track of the M.P.H. Program. Prerequisite: Epidemiology II, Biostatistics II, or approval of instructor.

PUBH 5540. Health Services Administration: Leadership and Management in Global Health. This course introduces students to principles of management and leadership of global health programs and organizations in complex and challenging environments. Students will explore diverse health systems, organizational behavior, health policy, program design, and core management techniques. Required for students in the Global Health track of the M.P.H. Program.

PUBH 5541. Essential Skills in Global Health. This course introduces students to core research, field tools, assessment and implementation techniques, and evaluation methodologies commonly used in the field of global health. Students explore theories and practices used to analyze issues and intervene in global health and they examine determinants of global health and development from an interdisciplinary vantage point. Health and developmental issues across nations and cultures that require collective, partnership-based action are highlighted. The course is taught by an interdisciplinary team of faculty members using didactic, interactive and practical elements of instruction. This course is required for students in the Global Health track of the M.P.H. program and may be taken as credit toward the Global Health Certificate.

PUBH 5542. Foundations of Global Health. This course introduces students to key topics, concepts and methods in global health, examining determinants of complex issues and multi-dimensional approaches and interventions with a particular emphasis on low-resource settings. Taught by an interdisciplinary team of faculty members, this course uses didactic, interactive and practical elements of instruction to address international and cross-cultural health and developmental issues. At the conclusion of the course, students should be able to discuss major topics in global health and design suitable projects that address global health challenges. This course is required for students in the Global Health track of the M.P.H. program and may be taken as credit toward the graduate certificate in global health.

PUBH 5543. Informatics for Global Health Professionals. With an emphasis on global health settings, this course introduces students to medical informatics and the use of innovational technologies for the storage, retrieval, dissemination, and application of biomedical knowledge. As global health bridges both patient care and public health, so informatics in this context covers both patient-based information systems and public health information systems. International cooperation on health information system issues has resulted in both extensive knowledge repositories and a powerful set of tools and techniques that can be used by practitioners and researchers. The course consists of lectures with discussion and analysis as well as hands-on instruction with some software applications and electronic resources. This course is offered as an elective for students in the Global Health track of the M.P.H. Program and may be taken as credit toward the Global Health Certificate. [1]

PUBH 5544. Ethics in Global Health. This course provides an overview of ethical issues and standards in global health, particularly with respect to ethics in international research. Its aim is to provide students in the health professions and others interested in global health with a framework in which to recognize, examine, resolve, and prevent ethical conflicts in their international work. Through readings, lectures and discussion, students will explore diverse historical and contemporary international perspectives on the concepts of ethics and health as well as formulating recommendations for prevention and resolution of ethical conflicts related to global health. This course is required for students in the Global Health track of the M.P.H. Program and may be taken as credit toward the graduate certificate in global health. Spring.

PUBH 5549. Case Studies in Tropical Diseases. This course introduces tropical diseases and parasitology in a clinical case study format with student group leadership that is facilitated by faculty with substantial front-line tropical medicine training and experience. Written case protocols will be presented by faculty members and Infectious Disease fellows/Internal Medicine residents who will lead an interactive discussion involving pathophysiology, clinical presentation, differential diagnosis, diagnosis and treatment. This course may be taken as elective credit toward the M.P.H. degree and the graduate certificate in global health. Summer.

PUBH 5550. Global Health Politics and Policy. Global Health Politics and Policy introduces core global health problems facing the world’s populations today and examines the efforts taken to improve health at a global level. It focuses on the social and political movements of global health issues and how these forces created and shaped global health policy both in the U.S. and among the G8 nations from 2000-2011. This course may be taken as elective credit toward the M.P.H. degree and the graduate certificate in global health. Spring.

PUBH 5556. Laboratory Technologies in Low-Resource Settings. This course addresses core laboratory principles, technologies, and applications used in the delivery of care and the performance of clinical research in resource-limited settings. It covers strengths, limitations, and appropriate use of laboratory technologies in the changing landscape of international research and clinical care. This course is offered as an elective in the Global Health track of the M.P.H. Program and may be taken as credit toward the graduate certificate in global health.

PUBH 5557. Protocol Development for Global Health. This course focuses on development of the individual student’s M.P.H. thesis protocol for the Global Health track. Each student will develop the background, methods, and limitations of their proposed research design in class. In addition, the course will include a one-on-one session with Dr. Yuxuei Zhu to review the statistical analysis plan for the thesis work. Each student’s thesis adviser(s) will be invited to participate. This course is required for and limited to students in the Global Health track of the M.P.H. Program.

PUBH 5599. MPH Thesis Research I. The primary objective is the completion of the M.P.H. Program’s thesis. Each student will work independently to coordinate research activities with his or her thesis committee.

PUBH 7999. MPH Thesis Research II. [Formerly PUBH 5519] In this research seminar required as part of the M.P.H. Program, second-year students present the results of their master’s thesis research. Each 40-minute presentation addresses the background and significance, methods, results, and public health/research implications. Presentations are scheduled through the course director on a first come, first served basis. Before presenting their work, students must obtain the approval of their thesis committee.

Applied Clinical Informatics

Courses leading to the Master of Science in Applied Clinical Informatics

ACI 6110. Introduction to Clinical Informatics. This course provides health care professionals with a basic and practical understanding of fundamental concepts in clinical informatics. Topics covered in the course include a history of biomedical informatics, review health information systems, clinical decision support, quality improvement, consumer health, human-system interactions, and others. Completion of this course will lay the groundwork for subsequent deep study of many of the individual topics covered.

ACI 6111. Foundations of Health Information Technology. This course will provide a strong foundation for understanding the current state and key topics in health information technology. Students will begin with a review of computer programs and systems, and then build on top of this framework detailed information on the structure of health care data and the architecture of supporting systems. Data exchange, interoperability and data networks will be covered, along with key concepts for data security and privacy. Students will utilize multiple modalities of digital learning, and will participate in projects at different points during the course. Health information technology skills and knowledge will be assessed incrementally throughout the course.
ACI 6112. The Health System. This introductory course provides a broad overview of actors and organizations comprising our health care systems as well as the societal and organizational trends facing consumers, clinicians, executives, and policy-makers. It will provide an overview of some of the major characteristics of the American health care system that in turn drive health care delivery and clinical informatics priorities. Topics will include a historical overview of the American Health Care system, health care economics and financing, current regulatory issues, and other factors both influencing current informatics initiatives and suggesting future opportunities for innovative informatics solutions.

ACI 6120. Clinical Decision Support and Evidence-Based Patient Care. This course will focus on the design, implementation, and evaluation of clinical decision support features of clinical information systems. Topics to be addressed include cognitive aspects of human decision making, decision science, knowledge management, workflow, evidence-based patient care, and facilitated information retrieval. Many existing CDS examples will be reviewed and evaluated and students will be expected to design a novel CDS as part of their final project.

ACI 6121. Clinical Information System and Applications. The digitization of health care data and delivery of care functionality has been occurring on the small scale for nearly 50 years in clinical information systems. Clinical information systems are comprised of multiple components that comprise clinical information. Beginning in the 1990s, electronic health record (EHR) systems began to emerge as a foundational tool for clinical information systems that brought together various aspects of health care such as billing, documentation, and order entry. By the mid-2000s the basic underpinnings of a comprehensive EHR were understood, but uptake was still very low. This situation changed fundamentally over the past decade and EHRs and related clinical information systems are now ubiquitous. The goal of this course is to provide a framework to understand the underpinnings of modern clinical information systems and the integration of these systems that enable their basic and extended functionalities. Furthermore, with health care consumers having more opportunities to be involved with their health information, we will explore the evolution of consumer informatics. Finally, we will discuss emerging trends in the digitization of health care data including mobile health and telemedicine.

ACI 6122. Workflow, User-Centered Design, and Implementation. The course will cover three main topic areas: workflow, user-centered design, and implementation. Each topic area will include three course segments: principles, methods, and applications. In the principles section for each topic, the course will clearly define terminology related to the topic area (e.g., what is workflow?), review how key concepts relate to each other (e.g., relationship between human factors engineering and human-computer interaction), and examine the relevance of the topic area in Applied Clinical Informatics. The methodology section for each topic will address qualitative, quantitative, and computational methods used for the design, implementation, and evaluation of health information technology. The applications section for each topic will use case studies based in the topic area to examine the real world application of principles and methods. The course will cover a wide range of contexts, from homes/communities to organizations to a broader regional scale.

ACI 6130. Data to Knowledge (Clinical Data Standards). This course introduces students to fundamental principles about terminologies and data standards and their importance in interoperability and health information exchange. It will focus on clinical data standards with respect to syntactic and semantic interoperability by covering data exchange and messaging standards (e.g., HL7), clinical terminology standards (e.g., SNOMED), document standards (e.g., HL7 CDA).

ACI 6131. Clinical Information System Lifecycle. This course will cover all aspects of designing, implementing and supporting systems. The course will be taught with reference to both the System Development Life Cycle (SDLC) and Information Lifecycle Management (ILM) frameworks. Areas covered will include project conceptualization, methods for requirements gathering, risk analysis and mitigation, total cost of ownership, and implementation and support. Planning and management of disaster recovery and business continuity will also be covered, as well as methods of evaluating effectiveness and return on investment.

ACI 6132. Management and Organizational Change. This course will focus on the management skills needed to direct the informatics activities of large organizations, and to lead changes in technology that may be disruptive. As part of the course curriculum, students will learn leadership models, processes, and practices, effective interdisciplinary communication and team formation, project management, and strategic and financial planning for new clinical information systems.

ACI 7110. Practicum Experience. This course will arrange for students to rotate through health IT operational teams based on their interests and team availability. As part of being embedded in an IT operation, students will be expected to complete limited assignments to advance the team agenda.

ACI 7111. Capstone Project Planning. Students will begin the process of planning for their second year Capstone project beginning with a faculty mentor selection, needs assessment and design phase leading up to a formal project proposal and submission of development specifications at the conclusion of the second semester. Project plans will be formally evaluated and will require approval prior to proceeding to implementation and evaluation.

ACI 7120. Practicum Experience. This course will arrange for students to rotate through health IT operational teams based on their interests and team availability. As part of being embedded in an IT operation, students will be expected to complete limited assignments to advance the team agenda.

ACI 7121. Capstone Project Planning. Students will continue the process of planning for their second year Capstone project. Project plans will be formally evaluated and will require approval prior to proceeding to implementation and evaluation.

ACI 7122. Practicum Experience. This course will arrange for students to rotate through health IT operational teams based on their interests and team availability. As part of being embedded in an IT operation, students will be expected to complete limited assignments to advance the team agenda.

ACI 7211. Capstone Project Implementation and Evaluations. Based on an approved project plan from the first year, students will implement and evaluate a Capstone project in conjunction with a clinical informatics operations team at their home institution. The Capstone Project is designed to provide students with knowledge and skills required to design and conduct applied research studies to evaluate the efficacy of informatics applications in the clinical environment. Based on personal career objectives and informatics challenges that they identify in practicum course, the capstone project will have the flexibility to be completed as a group or individually. Each student will have a faculty mentor and, if applicable, a practice mentor within the student’s home department/organization.

ACI 7220. Practicum Experience. This course will arrange for students to rotate through health IT operational teams based on their interests and team availability. As part of being embedded in an IT operation, students will be expected to complete limited assignments to advance the team agenda.

ACI 7221. Capstone Project Implementation and Evaluations. Based on an approved project plan from the first year, students will implement and evaluate a Capstone project in conjunction with a clinical informatics operations team at their home institution. The Capstone Project is designed to provide students with knowledge and skills required to design and conduct applied research studies to evaluate the efficacy of informatics applications in the clinical environment. Based on personal career objectives and informatics challenges that they identify in practicum course, the capstone project will have the flexibility to be completed as a group or individually. Each student will have a faculty mentor and, if applicable, a practice mentor within the student’s home department/organization.
Faculty

Anesthesiology

CHAIR Warren S. Sandberg
PROFESSORS EMERITI M. Lawrence Berman, John J. Franks, Bradley E. Smith
RESEARCH PROFESSOR Frank Emmanuel Block
ADJUNCT PROFESSORS Dominik Aronsky, David L. Tabb
ASSOCIATE PROFESSORS Jeffrey D. Blume, Steven H. Brown, Qingxia Zhang
ADJUNCT ASSISTANT PROFESSORS Bing Zhang, Zhongming Zhao

Biochemistry

CHAIR John D. York
PROFESSORS EMERITI Graham F. Carpenter, Stanley Cohen, Carl G. Herrerqvist, Tadashi Inagami, Conrad Wagner, Michael R. Waterman
RESEARCH PROFESSOR Edward T. Olejniczak
ADJUNCT PROFESSORS Rafael Radi, Orlando D. Scharfer
ASSOCIATE PROFESSORS Aaron B. Bowman, Tina M. Iverson, Melanie D. Ohl
ASSISTANT PROFESSORS Manuel Ascano, Raymond D. Blind, James Dewar, Emily C. Hodges, Lauren Parker Jackson, Andrew J. Link, Adrian Olivesares, Nicholas J. Reiter, Yi Ren
VISITING ASSISTANT PROFESSORS Alyssa R. Bonine-Summers
RESEARCH INSTRUCTORS Shu Xu, Yaofang Zhang

Biomedical Informatics

CHAIR Kevin B. Johnson
PROFESSOR EMERITUS Edward K. Shultz
ADJUNCT PROFESSORS Bing Zhang, Zhongming Zhao
ASSOCIATE PROFESSORS Jeffrey D. Blume, Steven H. Brown, Qingxia Chen, Jesse M. Ehrnfred, Dario A. Giuse, Gretchen Purcell Jackson, Mia A. Levy, Michael E. Mathery, Jens Meiler, Neal R. Patel, Josh F. Peterson, Antonis Rokas, Samuel Trent Rosenbloom, W. Anderson Spickard, Stuart T. Weinberg, Martin Were
ADJUNCT ASSOCIATE PROFESSORS Dominik Aronsky, David L. Tabb, Hua Xu

RESEARCH ASSISTANT PROFESSORS Shilo Anders, Cosmin Bojan, Aize Cao, Robert J Carroll, Fern Fitz-Henry, Glenn T. Gobbel, Quanhui Sheng

ADJUNCT ASSISTANT PROFESSORS William Scott Bush, Richard J. Holden, Russell B. Leftwich, Laura Katherine Wiley

SENIOR ASSOCIATE Daniel W. Byrne

INSTRUCTORS Jacob Joseph Hughey, Travis John Osterman, Joshua Carl Smith

Biostatistics

CHAIR Frank E. Harrell

PROFESSORS William D. Dupont, Frank E. Harrell, Yu Shyr

RESEARCH PROFESSOR Irene D. Feurer

ADJUNCT PROFESSOR Karel G. Moons


RESEARCH ASSOCIATE PROFESSOR Pingsheng Wu

ADJUNCT ASSOCIATE PROFESSORS Rafe M. Donahue

ASSISTANT PROFESSORS Rameela Chandrasekhar, Guanhua Chen, ADJUNCT ASSISTANT PROFESSOR Rafe M. Donahue

RESEARCH ASSOCIATE PROFESSOR Anna L. Means


INSTRUCTORS Lauren Ruth Samuels, Derek K. Smith

ADJUNCT INSTRUCTOR Mary Baranach

Cancer Biology

INTERIM CHAIR Harold L. Moses


RESEARCH PROFESSOR J. Oliver McIntyre

ADJUNCT PROFESSORS Lynn M. Matrisian, Margaret M. Whalen

ASSOCIATE PROFESSORS Robert H. Carnahan, W. Gray Jerome, Deborah A. Lannigan, Andrea Page-McCaw, Linda J. Sealy, Jeffrey R. Smith, Takamune Takahashi, Christopher S. Williams, Fiona E. Yull, Ming-Zhi Zhang, Sandra S. Zinkel

ADJUNCT ASSOCIATE PROFESSORS Donald J. Alcendor, Xiaofei Wang

ASSISTANT PROFESSORS Justin M. Balko, Rebecca S. Muraoka Cook, Kimberly Brown Dahlman, Anthony B. Daniels, Lourdes Estrada, Joshua P. Fessel, Barbara Mary Fingleton, Rebecca A. Ihrie, Jonathan M. Irish, Rachelle Whitney Johnson, Austin Kirschner, Carlos F. Lopez, Christine M. Lovly, Aron Parekh, Melissa C. Skala, Julie Anne Sterling, Jialiang Wang

RESEARCH ASSISTANT PROFESSORS Philip Owens, Bong Hwan Sung, Darren R. Tyson, Anna Vigelm, Hui Yu

Cardiac Surgery

CHAIR Michael R. Petracek

PROFESSORS EMERITI Harvey W. Bender, William S. Stoney

PROFESSORS David P. Bicheli, Walter H. Merrill, Michael R. Petracek, Ashish Shah

ADJUNCT PROFESSOR William H. Frist

ASSOCIATE PROFESSOR Karla G. Christian

ASSISTANT PROFESSORS Tarek S. Abis, Stephen K. Ball, Ben Barton, Chun W. Choi, Matthew R. Danter, Clayton A. Kaiser, Brett Allen Mettler

Cell and Developmental Biology

CHAIR Ian G. Macara

PROFESSORS EMERITI Alvin M. Burt, Steven K. Hanks, James A. McKanna, Jeanette J. Norden, Gary E. Olson


RESEARCH ASSOCIATE PROFESSOR Anna L. Means


RESEARCH ASSISTANT PROFESSORS Philip Owens, Bong Hwan Sung, Darren R. Tyson, Anna Vigelm, Hui Yu

Emergency Medicine

CHAIR Corey M. Slovis

PROFESSORS Donna L. Seger, Corey M. Slovis, Lawrence B. Stack, Keith D. Wrenn

VISITING PROFESSOR Greg L. Henry

ADJUNCT PROFESSORS John J. Benitez, Seth W. Wright
**Health Policy**

CHAIR Melinda Jean Buntin


ADJUNCT PROFESSORS Michael D. Decker, Bruce Jennings, Wayne Joseph Riley

CLINICAL PROFESSOR Timothy F. Jones

ASSOCIATE PROFESSORS Muktar Hassan Aliyu, Karen B. Bloch, Jesse M. Ehrenfeld, Derek MacGregor Griffith, Carlos G. Grijalva, Walter E. Smalley, David G. Stevenson, Larry Van Horn

ADJUNCT ASSOCIATE PROFESSOR Bruce G. Gellin

ASSOCIATE CLINICAL PROFESSIONAL Al/templates/clinicalprofessors/Allen Scott Craig, Abdelcado C. Moncayo

ASSISTANT PROFESSORS Carolyn Audet, Gilbert Gonzales, John A. Graves, Laura M. Keohane, Tara McKay, Sayeh Sander Nikpay, Stephen W. Patrick, Matthew J. Resnick, Michael R. Richards, Mary I. Yarbrough

RESEARCH ASSOCIATE PROFESSORS Tiffanie Markus, Marie H. Martin, Christine C. Whitmore

ADJUNCT ASSOCIATE PROFESSORS Usman Ibrahim Gebi, Kimberly R. Glenn, Karen M. Megazzini, Mulkhair Y. Muhammad

ASSISTANT CLINICAL PROFESSORS John R. Dunn, Marion A. Kainer, Kelly Lynn Moore, William S. Paul

INSTRUCTOR Justin Matthew Bachmann

RESEARCH INSTRUCTOR Erika T.A. Leslie

CLINICAL INSTRUCTOR Deidra D. Parrish

---

**Medical Education and Administration (VU)**

PROFESSORS G. Roger Chakley, Bonnie M. Miller

ADJUNCT PROFESSORS Glen W. Davidson, John Steven Halle

ASSISTANT PROFESSORS Alan R. Bentley, Elizabeth A. Bowman, Ashley Brady, Heather A. Davidson, Michelle S. Grundy, Kimberly A. Petrie, Ann H. Price

---

**Medical Education and Administration (VUMC)**

PROFESSORS EMERITI Gerald S. Gotterer, George C. Hill, Frederick Kirchner

PROFESSORS Donald W. Brady, Charlene M. Dewey, Gerald B. Hickson, Kimberly D. Lornis, Donald E. Moore, Lillian B. Narney, John S. Penn, James W. Pichert, David S. Raiford, Matthew Bret Weinger

ASSOCIATE PROFESSORS Arna Banerjee, Thomas F. Catron, Quentin Eichbaum, Amy E. Fleming, Julie K. Hudson

ASSISTANT PROFESSORS Craig R. Carmichel, Yvonne A. Joosten, John F. Mannion, Ilene N. Moore, Lynn E. Webb

VISITING ASSOCIATE PROFESSOR Gloria E. Gutierrez


ASSOCIATE CLINICAL PROFESSORS Phillip D. Bertram, James R. Cato, James P. Fields, Richard P. Schneider, Harrison J. Shull, Michael Lee Smith

ADJUNCT INSTRUCTORS Jennifer Cunningham Erves, Anna K. Holpa, Vincent Andrew Morrelli, Francesca Tentori
CLINICAL INSTRUCTORS Jeffrey L. Hymes, Asim Mushtaq, William H. Pettus, Lucien C. Simpson, Vincent E. Villaruz
RESEARCH PROFESSORS Charles E. Cobb, Mary E. Courtney Moore
ADJUNCT PROFESSORS Sharron H. Francis, K. Sam Wells
ASSOCIATE PROFESSORS Milam A. Brantley, Wenbiao Chen, Bruce M. Damon, Rachel Kuchtey, Matthew J Lang, Terunaga Nakagawa, Kevin Dean Nwisdner, Sachin Patel, David C. Samuels, Linda J. Sealy, Masakazu Shiota, James S. Sutcliffe, Jeanne M. Wallace, Jamie D. Young
RESEARCH ASSOCIATE PROFESSORS Dale Scott Edgerton, Eric J. Hustedt, Michael J. McCaughey
RESEARCH ASSOCIATE PROFESSORS Kevin Erreger, Massoud Ghamari-Langroudi, Heinrich J. G. Matthias, Patrick S. Page-McCaw, Richard L. Printz
ADJUNCT ASSISTANT PROFESSORS Douglas P. Mortlock
ADJONT ASSISTANT PROFESSORS Julio E. Ayala, Katie Colbert Coate, Tricia A. Thornton-Wells, Jason J. Winnick
RESEARCH INSTRUCTORS Derek P. Claxton, Arion Kenned, Guillaume Kraft, Smriti Mishra, Anna B. Osipovich, Chiyi Shiota, Richard A. Stein, Shu-Yu Wu
ADJONT INSTRUCTOR Maximilian Michel

**Neurological Surgery**

CHAIR Reid C. Thompson
PROFESSORS EMERITI George S. Allen, J. Michael Fitzpatrick, Robert L. Galloway
ADJUNCT PROFESSORS Stephen M. Oppenheimer, R. Shane Tubbs
CLINICAL PROFESSOR Anthony L. Asher
ASSOCIATE PROFESSORS John Allan Barwise, Clinton J. Devin, Andrew J. M. Gregory, Louise Ann Mawn
RESEARCH ASSOCIATE PROFESSORS C. Chris Kao, Chevis N. Shannon
ADJUNCT ASSOCIATE PROFESSOR J. D. Mocco
ASSISTANT PROFESSORS Albert Attia, Richard A. Berkman, Christopher M. Bonfield, Lola B. Chambless, Rohan V. Chitale, Mark A. Cobb, Michael T. Froehler, Matthew Robert Fusco, Rebecca A. Ihrie, Truc Minh Le, Robert P. Naftel, Mayur B. Patel, Paul T. Russell, Jacob Patrick Schwarz, Jialiang Wang, Kyle Derek Weaver, Robert J. Webster, Hong Yu
RESEARCH ASSISTANT PROFESSORS Aqeela Afzal, Michael S. Remple
ADJUNCT ASSISTANT PROFESSORS Scott Crawford Standard, David J. Vigerust
ASSISTANT CLINICAL PROFESSOR John Spooner
ASSOCIATE Elizabeth Haley Vance
INSTRUCTORS Dario J. Englott, Hamid M. Shah
ADJUNCT INSTRUCTOR Stephanie M. Murphy

**Molecular Physiology and Biophysics**

ACTING CHAIR Roger J. Colborn
PROFESSORS EMERITI Jackie D. Corbin, Daryl K. Granner, David N. Orth, Jane H. Park, Robert L. Post


RESEARCH PROFESSORS Charles E. Cobb, Mary E. Courtney Moore
ADJUNCT PROFESSORS Sharron H. Francis, K. Sam Wells
ASSOCIATE PROFESSORS Milam A. Brantley, Wenbiao Chen, Bruce M. Damon, Rachel Kuchtey, Matthew J Lang, Terunaga Nakagawa, Kevin Dean Nwisdner, Sachin Patel, David C. Samuels, Linda J. Sealy, Masakazu Shiota, James S. Sutcliffe, Jeanne M. Wallace, Jamie D. Young
RESEARCH ASSOCIATE PROFESSORS Dale Scott Edgerton, Eric J. Hustedt, Michael J. McCaughey
RESEARCH ASSOCIATE PROFESSORS Kevin Erreger, Massoud Ghamari-Langroudi, Heinrich J. G. Matthias, Patrick S. Page-McCaw, Richard L. Printz
ADJUNCT ASSISTANT PROFESSORS Douglas P. Mortlock
ADJONT ASSISTANT PROFESSORS Julio E. Ayala, Katie Colbert Coate, Tricia A. Thornton-Wells, Jason J. Winnick
RESEARCH INSTRUCTORS Derek P. Claxton, Arion Kenned, Guillaume Kraft, Smriti Mishra, Anna B. Osipovich, Chiyi Shiota, Richard A. Stein, Shu-Yu Wu
ADJONT INSTRUCTOR Maximilian Michel

**Neurological Surgery**

CHAIR Reid C. Thompson
PROFESSORS EMERITI George S. Allen, J. Michael Fitzpatrick, Robert L. Galloway
ADJUNCT PROFESSORS Stephen M. Oppenheimer, R. Shane Tubbs
CLINICAL PROFESSOR Anthony L. Asher
ASSOCIATE PROFESSORS John Allan Barwise, Clinton J. Devin, Andrew J. M. Gregory, Louise Ann Mawn
RESEARCH ASSOCIATE PROFESSORS C. Chris Kao, Chevis N. Shannon
ADJUNCT ASSOCIATE PROFESSOR J. D. Mocco
ASSISTANT PROFESSORS Albert Attia, Richard A. Berkman, Christopher M. Bonfield, Lola B. Chambless, Rohan V. Chitale, Mark A. Cobb, Michael T. Froehler, Matthew Robert Fusco, Rebecca A. Ihrie, Truc Minh Le, Robert P. Naftel, Mayur B. Patel, Paul T. Russell, Jacob Patrick Schwarz, Jialiang Wang, Kyle Derek Weaver, Robert J. Webster, Hong Yu
RESEARCH ASSISTANT PROFESSORS Aqeela Afzal, Michael S. Remple
ADJUNCT ASSISTANT PROFESSORS Scott Crawford Standard, David J. Vigerust
ASSISTANT CLINICAL PROFESSOR John Spooner
ASSOCIATE Elizabeth Haley Vance
INSTRUCTORS Dario J. Englott, Hamid M. Shah
ADJUNCT INSTRUCTOR Stephanie M. Murphy

**Molecular Physiology and Biophysics**

ACTING CHAIR Roger J. Colborn
PROFESSORS EMERITI Jackie D. Corbin, Daryl K. Granner, David N. Orth, Jane H. Park, Robert L. Post
Neurology

CHAIR Robert L. Macdonald

PROFESSORS EMERITI Gerald M. Fenichel, Frank R. Freemon, John S. Warner


CLINICAL PROFESSOR Karl E. Misulis


ADJUNCT ASSOCIATE PROFESSOR Pradamma Pratap Singh

ADJUNCT CLINICAL PROFESSOR Constance J. Johnson


RESEARCH ASSISTANT PROFESSORS Patricia A. Commiskey, Mallory Hacker, Ciria G. Hernandez, Chandramohan Natarajan, Aurora F. Pimenta, Shimian Qu, Nelleke van Wouwe, Song-Yi Yao, Chengwen Zhou

ADJUNCT ASSOCIATE PROFESSORS Nandakumar Bangalore Vittal, Lana J. Boursoulian

ASSOCIATE CLINICAL PROFESSORS Jan Lewis Brandes, Mary Ellen Clinton, George R. Lee, Barbara J. Olson, Subir Prasad, Martin H. Wagner, Shan-Ren Zhou

INSTRUCTORS Laura B. Coulam, Travis Hassell, Lindsay M Higdon

ADJUNCT INSTRUCTORS Kreig D. Roof, Olivia J. Veatch

Ophthalmology and Visual Sciences

ASSOCIATE CLINICAL PROFESSORS Jill F. Chambers, Harold B. Collins, Barry K. Jamagin, Audrey H. Kang, Bennett M. Spetnagel, Valve Yvette Vogt


RESEARCH ASSISTANT PROFESSOR Andrew J. Wilson


SENIOR ASSOCIATES Susan B. Drummond, Martha Shaw Dudek

ASSOCIATES Caflin M. Grabaritis, Jill R. Miramon

INSTRUCTORS Amy Barker, Belinda Caldwell, James N. Casey, Laura E. Cedo Cintron, All Sevilla de Cocco, Eduardo Coelho Dias, Nan Gentry, Amy Beth Graves, Carol A. Griffin, Meghan Hendrickson, Lydia Kelly, Anna T. Kirk, Lisa D. Milam, Lauren Goodson Moody, Valerie L. Nunley, Angela F. Sims Evans, Emily J Taylor, Stephanie Womble

RESEARCH INSTRUCTORS Steven M. Brunwater, Tianbing Ding


Obstetrics and Gynecology

PROFESSORS EMERITI Benjamin Danzo, Esther Eisenberg, Stephen S. Eintman, Marie-Claire Orgebin-Crist, Daulat R. Tulsiani


ADJUNCT PROFESSOR Damantis M. Olagundoye

CLINICAL PROFESSORS Cornelia R. Graves, William H. Kutteh, Frank Wen-Yung Ling, Salvatore J. Lombardi, Thomas G. Stovall, Robert Layman Summitt

PROFESSORS Rony A. Adam, Rochelle F. Andreotti


Ophthalmology and Visual Sciences

CHAIR Paul Sternberg


CLINICAL PROFESSORS John E. Downing, Ralph E. Wesley

ASSOCIATE PROFESSORS Milam A. Brantley, Edward F. Chemney, Amy S. Chomsky, Robert L. Estes, James W. Welch, Sabine Fuhrmann, Karla J. Johns, Jeffrey A. Kammer, Stephen J. Kim, Rachel Kuchty, David G. Morrison, Tonia S. Rex, Seth A. Smith, Uyen L. Tran, Laura L. Wayman, Daniel S. Weikert

RESEARCH ASSOCIATE PROFESSOR John G. Kuchty

ADJUNCT ASSOCIATE PROFESSOR Chasidy D. Singleton

ASSISTANT PROFESSORS Behin Barahimi, Nancy Mayer Benegas,

RESEARCH ASSISTANT PROFESSOR Jin-Hui Shen
ADJUNCT ASSISTANT PROFESSOR Ashwath Jayagopal

ASSISTANT CLINICAL PROFESSORS Brian Stuart Biesans, Homaira Ayesha Hossain, Gary W. Jenkins, Morgan Grey Parker, Linda Patel, Deborah D. Sherman, Robin bin Sinatra

INSTRUCTORS Alia K Durrani, Gowtham Jonna, Laura L Snyder, Sasha Strul

RESEARCH INSTRUCTORS MD Imam Uddin

CLINICAL INSTRUCTORS George N. Cheij, Kimberly A. Klippenstein

**Oral & Maxillofacial Surgery**

CHAIR Samuel J. McKenna
PROFESSOR Samuel J. McKenna
ASSOCIATE PROFESSOR Luis Vega
ASSOCIATE CLINICAL PROFESSORS James D. Allen, John R. Werther
ASSISTANT PROFESSORS Tyler Ames, A. Joel Gluck, Susie Lin, Julie Wang Rezk


RESEARCH INSTRUCTOR Derek K. Smith

**Orthopaedic Surgery and Rehabilitation**

CHAIR Herbert S. Schwartz
PROFESSOR EMERITUS Dan M. Spengler
PROFESSORS Cory A. Collinge, Heidi E. Harmm, Ginger E. Holt, John E. Kuhn, Donald H. Lee, Gregory A. Mencio, William Todd Obremskey, Herbert S. Schwartz

CLINICAL PROFESSOR J. Thomas W. Byrd
ASSOCIATE PROFESSORS John J. Block, Andrea C. Brackowski, Clinton J. Devin, Robert Wane Fitch, Andrew J. M. Gregory, Amir Alex Jahangiri, Nitin B. Jain, Jeffrey E. Martus, Michael J. McNamara, Jeffrey S. Nyman, Jonathan G. Schoenecker, Manish K. Sethi, Andrew Alan Shinar, Gary S. Solomon, Kristin Archer Swygert, Wesley P. Thayer, Paul A. Thomas, Douglas R. Weikert

ADJUNCT ASSOCIATE PROFESSOR Michael L. Voight
ASSOCIATE CLINICAL PROFESSORS Michael J. Christie, Michael J. McHugh


RESEARCH ASSISTANT PROFESSORS Jacqueline Sue Pennings, Masanori Saito

ADJUNCT ASSISTANT PROFESSOR Robert B. Snyder
ASSISTANT CLINICAL PROFESSORS Muhammad Ajmal, Mark R. Christophersen, Philip Gerlach Coogan, Andrew Brian Thomson

SENIOR ASSOCIATES Carolyn S. Aubrey, Adam Hicks, Laura J. Huston, David B. Trenner

ASSOCIATES Lauren Kelley Braue, Kirby Hudson Deeter, Michael Francis Eagle, Daniel W. Enrooth, Reagan Hall, Greer Mahoney Henry, Melissa K. Lasater, Jonathan S. Riggs, Ashley F. Small, Angelia Michelle Stewart, Jared A. Vaughn, Candace Kirstin West

INSTRUCTORS Cody Ryan Beaver, Seth Alan Cooper, Ryan A. Kelln, Adam Keith Lee

ASSISTANTS Margaret M. Baxter, Lillian Claire Spurling

**Otolaryngology**

CHAIR Roland D. Eavey
PROFESSORS EMERITUS James A. Duncavage, R. Edward Stone

ADJUNCT PROFESSOR Michael E. Glasscoock

ASSOCIATE PROFESSORS Marc L. Bennett, Sivakumari Chinnadurai, Edmond K. Kabagambe, Young Jun Kim, Alexander J. Langerman, James Sheridan Lewis, Jr., Haoxiang Luo, Alejandro Campos Rivas, Bernard Rousseau, Nabil Sinaan, Robert J. Simard, Justin Harris Turner, Robert J. Webster, Christopher T. Wootten

ADJUNCT ASSOCIATE PROFESSORS Steven L. Goudy, Lou Reinisch

RESEARCH ASSISTANT PROFESSOR Shan Huang
ADJUNCT ASSISTANT PROFESSOR Ramya Balachandran

ASSISTANT CLINICAL PROFESSORS Mark A. Clymer, W. Michael Mullins, David Douglass Nolen

INSTRUCTORS Shethal Bearely, Leah J Hauser, Bridget Learn Hopewell, Candace Marie Hrelec, Scott Russell Owen, Alice Tang

RESEARCH INSTRUCTOR Miriam D. Lense

CLINICAL INSTRUCTORS Samuel S. Becker, G. Lee Bryant
**Pathology, Microbiology, and Immunology**

CHAIR Samuel A. Santoro
ADJUNCT PROFESSOR Martin C. Mihm
CLINICAL PROFESSORS Edward P. Fody, Paul B. Googe
RESEARCH ASSOCIATE PROFESSORS Venkataraman Amarnath, Danyvid Oliaves-Vallagoz, Ingrid M. Verhamme, Lan Wu
ASSOCIATE CLINICAL PROFESSORS David L. Black, Thomas L. McCurley, John E. Wright
RESEARCH ASSOCIATE PROFESSORS Maciej S. Buchowski, Joyce Darline Cogan, Richard C. Urbano, Thomas Gregory Voss, Fang Yan

**Pediatrics**

CHAIR Dai H. Chung
PROFESSOR EMERITUS George W. Holcomb
PROFESSORS Dai H. Chung, Wallace W. Neblett, John B. Pletsch
ASSOCIATE PROFESSORS Martin Blakely, Gretchen Purcell Jackson, Harold N. Lovvorn
ASSISTANT PROFESSORS Melissa Ellen Danko, Erik Nels Hansen, Walter M. Morgan, Karen Elizabeth Speck
RESEARCH ASSISTANT PROFESSOR Jingbo Qiao
RESEARCH INSTRUCTOR Kwang Woon Kim

**PEDIATRICS**

CHAIR Steven A. Webber
PROFESSORS EMERITI Ian M. Burr, Thomas P. Graham, John W. Greene, Tukuni Ichikawa, Alexander R. Lawton, Hakan W. Sundell, Jan Van Eys
RESEARCH ASSOCIATE PROFESSORS Maciej S. Buchowski, Joyce Darline Cogan, Richard C. Urbano, Thomas Gregory Voss, Fang Yan

RESEARCH ASSOCIATE PROFESSORS James David Chappell, M. Diana Neely, Xianghu Qu, Lawrence A. Scheving, Cinque Soto

ADJUNCT ASSOCIATE PROFESSORS Robert C. Bone, Anthony W. Klizy, Susan G. McGrew, John V. Williams


RESEARCH ASSISTANT PROFESSORS Margaret A Adgent, Hyehun Choi, Lynnette M. Henderson, Jennifer L. Herington, Natalia Jimenez-Truque, Al-Dong Qi, Jeffrey C. Rohrbough

ADJUNCT ASSISTANT PROFESSORS Kyle B. Brothers, Lazaro Gonzalez-Calvo, Sabina B. Gesell, Lazaro Gonzalez-Calvo, Stephen Letchford, Romina P. Libster, Kajalana Manthiram, Uma Rao, Michele D. Spring, Michael Dale Warren

Pharmacology

CHAIR J. David Swaett

PROFESSORS EMERITI Wolf-Dietrich Dettbam, Joel G. Hardman, Erwin J. Lander, Peter W. Reed, Elaine Sanders-Bush, Jack N. Wells


ASSOCIATES Barbara Duffy, Vickie L. Hannig, Jean P. Pletchauker

INSTRUCTORS Kathryn Price Apple, Neill Broderick, Elizabeth C. Hong, Tina M. Iverson, Ethan Lee, Michael J. McLean, Jens M. Nthumba, John D. Rosdeutscher, Jacob G. Unger, J. Jason Wendel

Physical Medicine and Rehabilitation

INTERIM CHAIR Jeffery Scott Johns

PROFESSOR Michael Goldfarb

ASSOCIATE PROFESSORS Thomas E. Grooms, Ntin B. Jain, Jeffery Scott Johns, Blair E. Morris, Kristin Archer Swaygert, David R. Vago, Ruth Quillian Wollever, Chong-Bin Zhu


RESEARCH ASSOCIATE PROFESSOR Paula Donahue

ASSISTANT CLINICAL PROFESSORS Juan A. Cabrera, William J. L. Newton

INSTRUCTORS Kathryn Hansen, Kathleen L. Wolff

Plastic Surgery

INTERIM CHAIR Reuben A. Bueno

PROFESSOR Lilian B. Nanney

ADJUNCT PROFESSOR R. Bruce Shack

ASSOCIATE PROFESSORS Reuben A. Bueno, Kevin F. Hagan, Kevin J. Kelly, Wesley P. Thayer, Douglas R. Weikert

ASSOCIATE CLINICAL PROFESSOR Jack Fisher

ASSISTANT CLINICAL PROFESSORS Stephane Alain Braun, Brian C. Drotel, Varun Gupta, Kent K. Higdon, J. Blair Summitt

Psychiatry and Behavioral Sciences

CHAIR Stephan Heckers


ADJUNCT PROFESSORS Herbert Y. Meltzer, Steven S. Sharfstain

CLINICAL PROFESSORS David Barton, Robert O. Begtrup, Jeffrey L. Binder, Rudra Prakash, John L. Shuster, S. Steve Snow


RESEARCH ASSOCIATE PROFESSORS James C. Jackson, Alexandra F. Key, Baxter P. Rogers

ADJUNCT ASSOCIATE PROFESSOR Rebecca June Selove

ASSOCIATE CLINICAL PROFESSOR Karen H. Rhea


ADJUNCT ASSISTANT PROFESSOR Szatmar Horvath


SENIOR ASSOCIATES Elisa D. McMillan, Karen L. Starr

Radiation Oncology

CHAIR Lisa A. Khachnic

PROFESSORS EMERITI Charles W. Coffey, Arnold W. Malcolm

PROFESSORS Anuradha Bapsi Chakravarty, Anthony J. Omelak, George X. Ding, Michael L. Freeman, Lisa A. Khachnic

RESEARCH PROFESSOR Sekhar R. Konjeti

ASSOCIATE PROFESSOR Eric Tatsuo Shinohara


ADJUNCT INSTRUCTOR John J. Walsh

Radiation and Radiological Sciences

CHAIR Reed A. Omary

PROFESSORS EMERITI Frank E. Carroll, Thomas S. Dina, J. Michael Fitzpatrick, Richard M. Heller, Sandra Kirchner, E. Paul Nance, C. Leon Partain, W. Faxon Payne


RESEARCH ASSOCIATES Bertrand Brill, J. Oliver McIntyre

ADJUNCT PROFESSORS Aravind Arepally, A. Everette James, Anna Wang Roe, John A. Werrell, Thomas E. Yankelev


RESEARCH ASSOCIATE PROFESSOR Baxter P. Rogers

ADJUNCT ASSOCIATE PROFESSORS E. James Andrews, Jeffrey A. Landman, Thomas A. Powers, C. Chad Quarles

Section of Surgical Sciences

CHAIR OF THE SECTION R. Daniel Beauchamp

General Surgery

CHAIR R. Daniel Beauchamp, Seth J. Karp


RESEARCH PROFESSORS Irene D. Feurer, Phillip E. Williams

ADJUNCT PROFESSORS Douglas W. Hanto, William L. Russell

CLINICAL PROFESSORS Ravi S. Chari, Joseph L. Mulherin


RESEARCH ASSOCIATE PROFESSORS Joyce Cheung-Flynn, Padmini Komalavilas, Anna L. Means, Robyn A. Tamboli, Edward Y. Zavala

ADJUNCT ASSOCIATE PROFESSOR Amyos E. M’Koma

ASSOCIATE CLINICAL PROFESSORS David Alan Baker, Roger A. Bonau, William H. Edwards, Raymond S. Martin, Stanley O. Snyder


RESEARCH ASSOCIATE PROFESSORS Hanbing An, L. Alan Bradshaw, Lynne A. LaPierre, Ryota Masuzaki, Joseph T. E. Roland, Jing Zhu

ADJUNCT ASSISTANT PROFESSORS Claudia D. Andl, Leo K. Cheng, Ki Taek Nam, Sandeep Anantha Sathyaranarayana


SENIOR ASSOCIATE Carolyn S. Watts

INSTRUCTORS Eduardo Coohe Dias, Irma D. Fleming, Herbert Andrew Hopper, Timothy Graham Johnson, Michael J. Krzyzaniak, Shauna M. Levy, Julie Yoo Lee Valenzuela

RESEARCH INSTRUCTORS Joseph Antoun, Eunyoung Choi, Brian Connor Evans, Kyle M. Hocking, Jun Hong, Elena A. Kolobova, Heng Lu, DunFa Peng, Susseela Somarajan, Mohammed Souitto

ADJUNCT INSTRUCTOR Margaret J. Tarpley

CLINICAL INSTRUCTORS Luda Davies, Ray Hargreaves, Deonna Moore, John Kennedy Muma Nyagutela

Thoracic Surgery

INTERIM CHAIR Jonathan C. Nesbitt

PROFESSOR Jonathan C. Nesbitt

ASSOCIATE PROFESSORS Eric L. Grogan, Eric S. K. Lambright, Fabien Maldonado, Otis B. Rickman

Clincal Surgery

CHAIR David F. Penson

PROFESSORS Mark C. Adams, John W. Brock, Sam S. Chang, Peter E. Clark, Roger R. Dimochowski, Omar Hameed, S. Duke Hemll, Robert J. Matusik, Steven G. Meranze, David F. Penson, John C. Pope, Joseph A. Smith

ADJUNCT PROFESSOR Simon William Hayward

ASSOCIATE PROFESSORS Jay H. Fowke, Melissa R. Kaufman, Douglas F. Milam, Nicole L. Miller, William J. Stone, Stacy T. Tanaka, John C. Thomas, Robert J. Webster

ASSOCIATE CLINICAL PROFESSORS Charles W. Eckstein, Robert A. Sewell

ASSISTANT PROFESSORS Douglass B. Clayton, Maria Hadjifrangiskou, Ryan S. Hsi, Kirk A. Keegan, Kelvin A. Moses, Matthew J. Resnick, W. Stuart Reynolds, Kristen R. Scarpato

RESEARCH ASSOCIATE PROFESSOR Ren Jie Jin

ASSISTANT CLINICAL PROFESSORS Raoul S. Concepcion, Mark D. Flora, Whitson Lowe

ASSOCIATE Juliane B. Hutchinson

INSTRUCTORS Smita De, Joseph Kuebler, Daniel J. Lee, Jennifer Ayesha Robles, Mark D. Tyson

ADJUNCT INSTRUCTOR Chad Ryan Ritch
Faculty

MATTIE J. ABBATE, Instructor in Clinical Medicine
B.A. (Brown 1987); M.D. (Tufts 1991) [1995]

KHALED ABDEL-KADER, Assistant Professor of Medicine
B.A. (Saint Louis 1998); M.D. (Robert Wood Johnson Medical, New Brunswick 2002); M.S. (Pittsburgh 2009) [2013]

TY WILLIAM ABEL, Associate Professor of Pathology, Microbiology and Immunology

VIRGINIA D. ABERNETHY, Professor of Psychiatry, Emerita

BASSEL W. ABOU-KHALIL, Professor of Neurology

RIMA N. ABOU-KHALIL, Assistant Professor of Clinical Hearing and Speech Sciences

ROBERT L. ABRAM, Assistant Professor of Medicine
B.A. (Dartmouth 1985); M.D. (Medical College of Georgia 2000) [2008]

RICHARD G. ABRAMSON, Associate Professor of Radiology and Radiological Sciences

VANDANA G. ABRAMSON, Associate Professor of Medicine
B.A. (California, Berkeley 1996); M.D. (Chicago 2000) [2009]

RAFEK S. ABSI, Assistant Professor of Cardiac Surgery

AHMAD ABU-HALIMAH, Assistant Professor of Clinical Medicine

NAJN J. ABUMRAD, John L. Saverys Chair in Surgical Sciences; Professor of Surgery

DANA CLAY ACKERLY II, Assistant Professor of Clinical Physical Medicine and Rehabilitation

LEALANI M.Y. ACOSTA, Assistant Professor of Neurology

SAFI A. AGHARA, Professor of Clinical Pediatrics; Director, Division of Pediatric Gastroenterology

RONY A. ADAM, Professor of Clinical Obstetrics and Gynecology
B.S. (Maryland 1987); M.D. (Maryland, Baltimore 1991) [2013]

ALLISON LOTT ADAMS, Instructor in Clinical Medicine
B.S. (Samford 2008); M.D. (South Alabama 2012) [2016]

DAWN WIENER ADAMS, Assistant Professor of Medicine

GEORGE A. ADAMS, Jr., Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.A. (Southern Methodist 1995); D.M.D. (Kentucky, Lexington 1999) [2004]

MARK C. ADAMS, Professor of Urologic Surgery; Professor of Pediatrics
B.A., M.D. (Vanderbilt 1979, 1983) [1995]

RAEANNA CLAIR ADAMS, Assistant Professor of Surgery
A.A. (Emmanuel [Georgia] 1995); B.S. (Georgia 1998); M.D. (Mercer 2002) [2009]

RODNEY S. ADAMS, Associate in Medicine
A.S.N. (Southern Adventist 1986); B.S.N. (Belmont 2000); M.S.N. (Vanderbilt 2001) [2002]

SUSAN M. ADAMS, Professor of Nursing; Professor of Psychiatry and Behavioral Sciences
B.S. (Valparaiso 1972); M.S.N. (California, San Francisco 1977); Ph.D. (Kentucky, Lexington 2007) [1995]

TAMMY H. ADAMS, Assistant Clinical Professor of Pediatrics
B.S. ( Belmont 1993); M.D. (East Tennessee State 1997) [2007]

WESLEY F. ADAMS, Jr., Clinical Instructor in Obstetrics and Gynecology
B.S. (Georgia 1973); M.D. (Medical College of Georgia 1974) [2012]

MARGARET A. ADGENT, Research Assistant Professor of Pediatrics

KEITH D. ADKINS, Assistant in Medicine
B.A. (Augusta State 2001); M.S.N. (Vanderbilt 2008) [2010]

TERRY ADKINS, Assistant Clinical Professor of Obstetrics and Gynecology
B.A. (Tennessee 1980); M.D. (Baylor 1983) [1989]

AQEELA AFZAL, Research Assistant Professor of Neurological Surgery
M.S. (SUNY, Stony Brook 1998); Ph.D., M.B.A. (Florida, 2003, 2007) [2012]

ANITA AGARWAL, Adjunct Professor of Ophthalmology and Visual Sciences
M.B.B.S. (Mangalore [India] 1985); M.S. (Postgraduate Institute of Medical Education and Research [India] 1990) [1999]

ALEXANDER GUNTER AGTHE, Assistant Professor of Pediatrics
M.D., Ph.D. (Freie Universitat Berlin [Germany] 1993, 1997) [2016]

MAREA DEL PILAR AGUINAGA, Professor of Obstetrics and Gynecology
at Meharry Medical College; Adjunct Associate Professor of Medicine at Vanderbilt University School of Medicine; Adjunct Professor of Medicine

CHETAN AHER, Assistant Professor of Surgery
B.S. (Loyola 2006); M.D. (Rush 2010) [2015]

ASMA AHMAD, Assistant Professor of Clinical Radiology and Radiological Sciences
B.A. (Vanderbilt 1996); M.D. (Louisville 2001) [2009]

NAZNEEN AHMED, Clinical Professor of Pediatrics
M.D. (Bangalore [India] 1986) [2005]

SYED T. AHMED, Assistant Professor of Biomedical Informatics
M.S., Ph.D. (Arizona State); B.E. (Osmania [India] 2002) [2012]

AIMALI AGNES AHONKHAI, Assistant Professor of Medicine
A.B. (Harvard 1998); M.D. (Johns Hopkins 2004) [2016]

CHRISTOPHER R. AIKEN, Cornelius Vanderbilt Chair in Pathology, Microbiology and Immunology; Professor of Pathology, Microbiology and Immunology
B.S. (California, Santa Barbara 1983); Ph.D. (Illinois, Champaign 1991) [1996]

MUHAMMAD AJMAL, Assistant Clinical Professor of Orthopaedic Surgery and Rehabilitation
M.D. (Allama Iqbal Medical College [Pakistan] 1989) [2011]

JOSEPH A. AKAMAH, Adjunct Assistant Professor of Medicine
M.B.B.Ch. (Ghana 1993); M.P.H. (Chicago 2005) [2012]

TERRAH L. AKARD, Associate Professor of Nursing; Associate Professor of Pediatrics
B.S. (Jacksonville State 1999); M.S.N., Ph.D. (Vanderbilt 2001, 2008) [2005]

WENDELL S. AKERS, Adjunct Associate Professor of Pharmacology
Pharm.D. (UT Health Science Center [Tennessee] 1991); Ph.D. (Kentucky, Lexington 1998) [2007]

SYLVIE A. AKHOUE, Assistant Professor of Family and Community Medicine at Meharry Medical College; Adjunct Assistant Professor of Medicine at Vanderbilt University School of Medicine
B.S. (National, San Diego 1986); M.S. (California State, Fresno 1990); Ph.D. (Pennington State 2003) [2008]

RAMI NAYEF AL-ROHIL, Assistant Professor of Pathology, Microbiology and Immunology
M.B.B.S. (Jordan University of Science and Technology - [Jordan] 2008) [2016]

SHARON ELIZABETH ALBERS, Assistant Professor of Clinical Medicine
B.S. (Florida State 1984); M.D. (South Florida 1989) [2017]
REBECCA WYLIE ANDERSON, Assistant Professor of Clinical Medicine
ROBERT N. ANDERSON, Assistant in Pediatrics
A.S. (SUNY, Farmingdale 1988); B.S.N. (Middle Tennessee State 2006); M.S.N. (Vanderbilt 2008); D.N.P. (Frontier School of Midwifery and Family Nursing 2012) [2010]
SEAN A. ANDERSON, Assistant in Physical Medicine and Rehabilitation
B.S.N. (Belmont 2011); M.S.N. (Vanderbilt 2014) [2015]
TED L. ANDERSON, Betty and Lonnie S. Burnett Chair in Obstetrics and Gynecology; Professor of Obstetrics and Gynecology; Adjunct Professor of Nursing
CLAUDIA D. ANDL, Adjunct Assistant Professor of Surgery
BRUNO DE BEZERRIL ANDRADE, Adjunct Assistant Professor of Medicine
M.D. (2006) [2017]
ROCHELLE F. ANDREOTTI, Professor of Clinical Radiology and Radiological Sciences; Professor of Clinical Obstetrics and Gynecology
B.S., M.D. (Florida 1975, 1978) [2005]
E. JAMES ANDREWS, JR., Adjunct Associate Professor of Radiology and Radiological Sciences
B.S. (Colorado 1962); M.D. (Florida 1966) [2002]
WILLIAM A. ANDREWS, Assistant in Anesthesiology
B.A. (Trevcca Nazarene 2006); M.S.N. (Vanderbilt 2011) [2011]
FEDERICA B. ANGEL, Assistant Professor of Clinical Medicine
B.A. (Texas 2001); M.D. (Texas Tech University 2008) [2011]
NARENDER ANNAPUREDDY, Assistant Professor of Medicine
Bachelor in Medicine (Osmania [India] 2007) [2014]
KIM ANNIS, Assistant in Medicine
B.S. (Wisconsin, Stout 1979); M.S. (Transylvania 1986); B.H.S. (Kentucky, Lexington 1996) [2013]
JOSEPH ANTOUN, Research Instructor in Surgery
M.S. (St. Joseph [Lebanon] 2003); Ph.D. (Université de Bretagne Occidentale [France] 2007) [2011]
RACHEL KATHRYN PRICE APPLE, Instructor in Medicine; Instructor in Pediatrics
B.A. (Princeton 2007); M.D. (Vanderbilt 2012) [2016]
TROY M. APPLE, Instructor in Pathology, Microbiology and Immunology
B.S. (Rose-Hulman Institute of Technology 1986); D.V.M. (Tennessee 1998) [2008]
BARBARA A. AQUINO, Associate Clinical Professor of Pediatrics
JENETH AQUINO, Associate in Radiology and Radiological Sciences
B.S. (St. Scholastica College [Philippines] 1990); A.D.N. (Aquinas College [Tennessee] 1997); B.S.N. (Middle Tennessee State 2006); M.S.N. (Belmont 2010) [2016]
AMIR M. ARAIN, Associate Professor of Neurology
ARAVIND AREPALLY, Adjunct Professor of Radiology and Radiological Sciences
B.A. (Mercer 1989); M.D. (Emory 1993) [2015]
MARY ANN THOMPSON ARILDESEN, Associate Professor of Pathology, Microbiology and Immunology
RONALD C. ARILDESEN, Associate Professor of Radiology and Radiological Sciences
COLIN ARMSTRONG, Assistant Professor of Physical Medicine and Rehabilitation; Assistant Professor of Clinical Psychiatry and Behavioral Sciences; Psychologist Kim Dayani Center
B.A. (California State, Bakersfield 1990); Ph.D. (San Diego State 1998) [2001]
S. KRISTAN ARMSTRONG, Assistant in Psychiatry and Behavioral Sciences
B.A. (Maryville 2008); M.M.S.W. (Tennessee, Nashville 2013) [2016]
CAROLINE TUCKER BANES, Assistant in Surgery
B.A. (Lipscomb 2006); M.S.N. (Vanderbilt 2007) [2011]

NANDAKUMAR BANALORE VITTAI, Associate Professor of Neurology at Meharry Medical College; Adjunct Assistant Professor of Neurology at Vanderbilt School of Medicine
M.B.B.S. (Bangalore India 1999) [2008]

FILIP BANOVAC, Associate Professor of Radiology and Radiological Sciences
B.S. (Duke 1993); M.D. (Medical College of Virginia 1998) [2015]

VIKRAM KUMAR BANSAL, Assistant Professor of Clinical Anesthesiology
B.A., M.D. (Buffalo 2006, 2010) [2015]

SHICHUN BAO, Associate Professor of Medicine
M.D. (Shanghai Second Medical [China] 1989); Ph.D. (Indiana, Indianapolis 1997) [2005]

UDAYKAMAL BARAD, Assistant Professor of Clinical Radiology and Radiological Sciences
M.B.B.S. (B. J. Medical [India] 2002) [2016]

BEVIN BARAHI, Assistant Professor of Clinical Ophthalmology and Visual Sciences
B.S., M.D. (Vanderbilt 2002, 2007) [2013]

ADRIAN BARBUL, Professor of Surgery
B.S. (City College of New York 1969); M.D. (University of Medicine and Pharmacy [Romania] 1974) [2015]

NAIRA BARERGIAN, Assistant Professor of Surgery
B.A. (California State, Northridge 1999); M.D. (St. George’s, Grenada 2003); M.S.M. (Texas, Galveston 2007) [2014]

AMY BARKER, Instructor in Clinical Obstetrics and Gynecology
B.A. (Baylor 1992); M.S.N. (Vanderbilt 1995) [2016]

SHARI L. BARKIN, William K. Warren Foundation Chair in Medicine; Professor of Pediatrics; Professor of Health Policy; Director, Division of General Pediatrics
A.B. (Duke 1986); M.D. (Cincinnati 1991); M.S.H.S. (California, Los Angeles 1998) [2006]

KASSANDRA L. BARKLEY, Assistant in Neurology
B.S. (Florida State 1996); M.S.N. (Vanderbilt 2001) [2009]

ALISON B. BARLOW, Assistant Professor of Clinical Obstetrics and Gynecology; Adjunct Associate Professor of Nursing

APRIL LYNN BARNADO, Instructor in Medicine
B.S. (Davidson 2005); M.D. (Emory 2009) [2014]

JULIE B. BARNES, Assistant in Medicine
B.S.N. (Belmont 1995); M.S.N., Post Masters in Nursing (Vanderbilt 1999, 2012); RN,MSN,WHNP [2001]

JOEY V. BARNETT, Professor of Pharmacology; Professor of Pediatrics; Professor of Pathology, Microbiology and Immunology; Professor of Medicine
B.S. (Southern Indiana 1983); Ph.D. (Vanderbilt 1986) [1992]

DANIEL A. BAROCAS, Associate Professor of Surgery; Associate Professor of Medicine

CHRISTOPHER M. BARON, Assistant Professor of Radiology and Radiological Sciences
B.S. (Saint Edward’s 2000); M.D. (Texas 2004) [2012]

MICHAEL J. BARON, Assistant Clinical Professor of Psychiatry and Behavioral Sciences

TYLER W. BARRET, Associate Professor of Emergency Medicine

HEATHER BARROW, Assistant Clinical Professor of Pediatrics

ROBERT L. BARRY, Adjunct Assistant Professor of Radiology and Radiological Sciences

ANNE P. BARTOK, Assistant Professor of Psychiatry and Behavioral Sciences
B.S., M.D. (Michigan 1975, 1979) [1990]
CODY RYAN BEAVER, Instructor in Orthopaedic Surgery and Rehabilitation  
B.S. (Texas Tech University 2006, 2010) [2016]

SONIA CAMPOS BECK, Assistant Professor of Clinical Psychiatry and Behavioral Sciences  

JASON R. BECKER, Assistant Professor of Medicine; Assistant Professor of Molecular Physiology and Biophysics  
B.S. (Pennsylvania State 1998); M.D. (Tulane 2002) [2010]

JONATHAN E. BECKER, Assistant Professor of Clinical Psychiatry and Behavioral Sciences  
M.S., B.A. (Tulane 2003, 2004); D.O. (Des Moines University 2009) [2013]

SUSAN P. BELL, Assistant Professor of Medicine  
B.A. (Boston University 1995); M.D. (California, San Francisco 2002) [2008]

DEANNA SMITH BELL, Associate Clinical Professor of Pediatrics  
B.S., M.D. (Texas Tech University 2006, 2010) [2016]

ABBES BELKHIRI, Assistant Professor of Surgery  
M.D. (Tulane 1996) [1984]

JON E. BETTS, Associate Clinical Professor of Pediatrics  
B.S. (Florida State 1998); M.D. (Tulane 2002) [2010]

AMY R. BEST, Assistant Professor of Clinical Psychiatry and Behavioral Sciences  
B.S. (Emory 2006); M.D. (Johns Hopkins 2003); M.Mgt. (Vanderbilt 2014) [2007]

JONATHAN E. BECKER, Assistant Professor of Medicine; Adjunct Professor of Emergency Medicine; Adjunct Professor of Otolaryngology  
B.S. (Southern Illinois 1978); M.D. (Southern Illinois, Springfield 1981); M.P.H. (Pittsburgh 1995) [2008]

MARIA C. BENITEZ-BRAUER, Associate Clinical Professor of Pediatrics  
B.S. (Philippines 1985); M.D. (University of the East [Philippines] 1989) [2004]

JOHN G. BENITEZ, Adjunct Professor of Emergency Medicine; Adjunct Professor of Medicine  
B.A. (Southern Illinois 1978); M.D. (Southern Illinois, Springfield 1981); M.P.H. (Pittsburgh 1995) [2008]

NANCY GRAVES BEVERIDGE, Clinical Professor of Pediatrics  

JORDAN D. BERLIN, Ingram Professor of Cancer Research; Professor of Medicine  
B.S. (California, Chico 1995); M.D. (Tulane 2002) [2016]

JOHN BENJAMIN, Assistant Professor of Pediatrics  
M.B.B.S. (Lokmanya Tilak Municipal [India] 1998); M.P.H. (Medical University of South Carolina 2001) [2012]

CLAUDIA BENKUNITZ, Assistant Professor of Anesthesiology  
M.D., Ph.D. (Bonn [Germany] 2000, 2007) [2013]

NANCY GRAVES BEVERIDGE, Clinical Professor of Pediatrics  
B.A. (North Carolina 1984); M.D. (Wake Forest 1988) [1991]
JAN LEWIS BRANDES, Assistant Clinical Professor of Neurology
B.S. (*Mississippi Univ for Women 1975); M.S. (Tennessee State 1980); M.D. (Vanderbilt 1989) [1993]
STEPHEN J. BRANDT, Professor of Medicine; Professor of Cancer Biology; Professor of Cell and Developmental Biology
B.S. (Duke 1976); M.D. (Emory 1981) [1990]
MILAM A. BRANTLEY, JR., Associate Professor of Ophthalmology and Visual Sciences; Associate Professor of Molecular Physiology and Biophysics
DANA M. BRANTLEY-SIEGERS, Assistant Professor of Medicine
B.A. (Maryville 1995); Ph.D. (Vanderbilt 2003) [2003]
ALAN R. BRASH, Professor of Pharmacology
LAUREN KELLEY BRAUE, Associate in Orthopaedic Surgery and Rehabilitation
B.S., M.S. (Florida 2009, 2012) [2015]
CHASTITY T. BRAUER, Assistant in Pediatrics
B.S.N. (Baptist College of Health Sciences 1999); M.S.N. (UT Health Science Center [Tennessee] 2002) [2009]
JENNIFER ANN BRAULT, Assistant Professor of Clinical Pediatrics
B.S. (Hillsdale 1997); M.S. (Toledo 2002); M.D. (Indiana, Indianapolis 2005) [2015]
STEPHANE A. BRAUN, Assistant Professor of Plastic Surgery
DEBRA BRAUN-COURVILLE, Assistant Professor of Clinical Pediatrics
B.S. (Spelman 1992); M.D. (Meharry Medical 1996) [2003]
KATHRYN A. BRAUNLIN, Assistant in Neurological Surgery
B.S., M.S.N. (Vanderbilt 2010, 2012) [2015]
DANA C. BRAY, Assistant in Pediatrics
B.S.N. (Memphis 1996); M.S.N. (UT Health Science Center [Tennessee] 1998) [2009]
PETER R. BREAM, JR., Associate Professor of Radiology and Radiological Sciences; Associate Professor of Medicine
B.S. (Davidson 1990); M.D. (North Carolina 1996) [2001]
LORI A. BREAUX, Assistant Clinical Professor of Pediatrics
B.S. (Spelman 1992); M.D. ( Meharry Medical 1996) [2001]
KIMBERLY C. BRENNAN, Assistant Professor of Biophysics and Radiological Sciences
B.S. (Indiana, Bloomington 1994); M.D. (Kentucky, Lexington 1998) [2004]
PHILLIP L. BRESSMAN, Clinical Professor in Obstetrics and Gynecology
B.S. (Oklahoma 1974); M.D. (Vanderbilt 1979) [1983]
MATTHEW D. BREYER, Adjunct Professor of Medicine
B.Sc. (Michigan 1975); M.D. (Harvard 1970) [2008]
RICHARD M. BREYER, Ruth King Scoville Chair in Medicine; Professor of Medicine; Professor of Biochemistry; Professor of Pharmacology
B.S. (Michigan 1978); M.S.; Ph.D. (Massachusetts Institute of Technology 1982, 1988) [1991]
PAUL BREZINA, Assistant Clinical Professor of Obstetrics and Gynecology
BRIAN C. BRIDGES, Assistant Professor of Pediatrics; Assistant Professor of Anesthesiology
B.A. (Furman 1998); M.D. (Medical University of South Carolina 2004) [2010]
THOMAS BRIDGES, Research Assistant Professor of Pharmacology
B.S. (Wheaton 2005); Ph.D. (Vanderbilt 2010) [2015]
ERIC R. BRIGGS, Assistant Professor of Clinical Anesthesiology
B.S. (Louisiana Tech 2002); M.D. (Louisiana State 2006) [2010]
A. BERTRAND BRILL, Research Professor of Physics; Research Professor of Radiology and Radiological Sciences
M.D. (Utah 1956); Ph.D. (California, Berkeley 1961) [1997]
DOUGLAS MARSHALL BRINKLEY, Assistant Professor of Medicine
B.S. (Duke 2002); M.D. (Vanderbilt 2007) [2016]
MARCELA BRISSOVA, Research Associate Professor of Medicine
EVAN L. BRITTAIN, Assistant Professor of Medicine
B.S. (North Carolina 2003); M.D. (Cornell 2007); M.S.C.I. (Vanderbilt 2014) [2013]
KENDAL SCOT BROADIE, Stevenson Professor of Neurobiology; Professor of Pharmacology; Professor of Cell and Developmental Biology
CAROL H. BROADWAY, Clinical Professor of Pediatrics
B.A. (Tennessee 1983); M.D. (UT Health Science Center [Tennessee] 1988) [2006]
E. JANE BROCK, Associate Professor of Clinical Anaesthesiology
B.S. (Tennessee, Chattanooga 1983); D.O. (Kirkville College of Osteopathic Medicine 1989) [2008]
JOHN W. BROCK III, Monroe Carell Jr. Chair; Professor of Urologic Surgery; Professor of Pediatrics; Director, Division of Pediatric Urology
B.A. (Vanderbilt 1974); M.D. (Medical College of Georgia 1978) [1983]
NEILL BRODERICK, Instructor in Pediatrics
ELIZABETH BROKAMP, Assistant in Pediatrics
B.S. (Ohio State 2013); M.S. (Sarah Lawrence 2016) [2016]
A. SCOTT BROOKS, Clinical Professor of Pediatrics
B.S. (Vanderbilt 1977); M.D. (UT Health Science Center [Tennessee] 1981) [1984]
CRAIG R. BROOKS, Assistant Professor of Medicine
B.S. (Emmanuel [Georgia] 2003); Ph.D. (Medical College of Georgia 2008) [2016]
COLLEEN M. BROPHY, Professor of Surgery; Professor of Medicine
B.S., M.D. (Utah 1973, 1983) [2008]
DONALD T. BROTHERS, JR., Associate Clinical Professor of Pediatrics
B.S. (Vanderbilt 1985); M.D. (UT Health Science Center [Tennessee] 1989) [1994]
KYLE B. BROTHERS, Adjunct Assistant Professor of Pediatrics
B.S. (Centre 2000); M.D. (Louisville 2004); Ph.D. (Vanderbilt 2015) [2008]
ALAINA JANEEN BROWN, Assistant Professor of Obstetrics and Gynecology
B.A. (Baylor 2004); M.D. (Texas, Houston 2008) [2016]
ANNE W. BROWN, Assistant in Medicine
B.S.N., M.S.N. (Vanderbilt 1974, 1983); MSN,CRNP,FNC [2001]
ASHLEY R. BROWN, Assistant Professor of Emergency Medicine
B.S. (Washington and Lee 2006); M.D. (Wake Forest 2010) [2013]
CHARLOTTE MORGAN BROWN, Assistant Clinical Professor of Obstetrics and Gynecology
B.A. (Wake Forest 2005); M.D. (Vanderbilt 2009) [2015]
CHRISTOPHER BRIAN BROWN, Adjunct Assistant Professor of Pharmacology
B.S. (Auburn 1990); Ph.D. (Vanderbilt 1997) [2003]
DANIEL B. BROOKS, Professor of Radiology and Biomedical Sciences; Professor of Biomedical Engineering
B.S. (Dickinson 1989); M.D. (Hahnemann Medical 1993) [2013]
DEANNA B. BROWN, Clinical Instructor in Pediatrics
B.S. (Tennessee 2004); M.D. (East Tennessee State 2010) [2013]
DOUGLAS H. BROWN, Assistant Clinical Professor of Obstetrics and Gynecology
B.S. (Birmingham-Southern 1973); M.D. (Alabama, Birmingham 1976) [1980]
ERIC N. BROWN, Assistant Professor of Ophthalmology and Visual Sciences
B.A. (Saint Olaf 2001); Ph.D., M.D. (Iowa 2010, 2010) [2015]
H. ALEX BROWN, Bixler-Johnson-Mayes Chair; Professor of Pharmacology; Professor of Biochemistry
B.S. (Florida Institute of Technology 1983); M.S. (Syracuse 1986); Ph.D. (North Carolina 1992) [2006]
JONATHAN D. BROWN, Assistant Professor of Medicine; Assistant Professor of Molecular Physiology and Biophysics
B.A. (Brown 2005); M.D. (New York Medical 2000) [2015]
KELLY MARI BROWN, Assistant Professor of Clinical Neurology
KIMBERLY P. BROWN, Associate Professor of Clinical Psychiatry and Behavioral Sciences
DANIEL W. BYRNE, Senior Associate in Biostatistics; Senior Associate in Medicine; Senior Associate in Biomedical Informatics
B.A. (SUNY, Albany 1983); M.S. (New York Medical 1991) [1999]
MICHAEL T. BYRNE, Assistant Professor of Medicine
B.S., B.A. (Duquesne 2002, 2002); D.O. (LECOM 2007) [2015]
BRYAN BYRNSIDE, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.A. (Emory 1998); D.M.D. (Medical University of South Carolina 2003) [2007]
NELLIE E. BYUN, Research Assistant Professor of Radiology and Radiological Sciences
B.A. (California, Berkeley 1997); Ph.D. (Vanderbilt 2007) [2010]
JUAN A. CABRERA, Assistant Clinical Professor of Physical Medicine and Rehabilitation
B.A. (Notre Dame 2001); M.D. (South Alabama 2005) [2012]
WANDA B. CADE, Associate Clinical Professor of Pediatrics
B.S. (Mississippi State 1989); M.D. (Mississippi, Jackson 1993) [2007]
HUI CAI, Research Assistant Professor of Medicine
M.D. (Nantong Medical [China] 1982); M.S. (China Medical 1987); Ph.D. (West China University of Medical Sciences 1995) [2003]
QIUYIN CAI, Professor of Medicine
B.S. (Brown 2009) [2017]
JUSTIN CALABRACE, Assistant in Anesthesiology
A.D.N. (Excelsior 2003); M.S.N. (Vanderbilt 2008) [2009]
M. WADE CALCUTT, Research Assistant Professor of Biochemistry
B.S. (Francis Marion 1996); Ph.D. (Wake Forest 2001) [2005]
AIZE CAO, Research Assistant Professor of Biomedical Informatics
B.S. (Bogaziçi [Turkey] 2003); Ph.D. (Brown 2009) [2017]
CHRISTINA CAIN-SWOPE, Assistant Professor of Clinical Obstetrics and Gynecology
B.A. (Vanderbilt 1990); M.D. (Georgetown 1995) [2007]
ISIN CAKIR, Adjunct Research Assistant Professor of Molecular Physiology and Biophysics
B.S., B.S. (Bogazici [Turkey] 2003, 2003); Ph.D. (Brown 2009) [2017]
B.S. (West Virginia Wesleyan 1974); M.S. (State University of New York, Buffalo 2007) [2016]
B.S. (Vanderbilt 1999); M.D. (Tennessee, Martin 1994); D.M.D. (Tufts 2003) [2006]
B.S. (North Carolina 1977); M.D. (North Carolina 1982) [1986]
Cynthia R. Calisi, Assistant Clinical Professor of Pediatrics
B.S. (Western Kentucky 1995); M.D. (Louisville 1999) [2003]
DAVID J. CALKINS, Denis M. O’Day, M.B.B.S., Chair in Ophthalmology and Visual Sciences; Professor of Ophthalmology and Visual Sciences; Professor of Psychology; Professor of Pharmacology
B.S. (Michigan 1989); Ph.D. (Pennsylvania 1995) [2004]
STEPHEN TODD CALLAHAN, Associate Professor of Pediatrics
B.S. (Arkansas Tech 1990); M.D. (Arkansas 1994); M.P.H. (Harvard 2002) [2000]
STEPHEN M. CAMARATA, Professor of Hearing and Speech Sciences; Professor of Psychiatry and Behavioral Sciences
B.A., M.A. (San Diego State 1979, 1981); Ph.D. (Purdue 1984) [1990]
WILLIAM R. CAMERON, JR., Assistant in Surgery; Adjunct Instructor in Nursing
B.A. (Colorado Christian 1989); B.S.N. (Middle Tennessee State 2006); M.S.N. (Vanderbilt 2009) [2012]
COREY D. CAMPBELL, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.S. (Ohio 2000); D.O. (Nova Southeastern 2004) [2009]
DUNCAN R. CAMPBELL, Clinical Professor of Pediatrics
B.A. (Vanderbilt 1971); M.D. (Kentucky, Lexington 1975) [1998]
ERIN JJ. CAMPBELL, Associate Clinical Professor of Medicine
B.A. (San Diego State 1998); B.S.N. (Belmont 2010) [2017]
IAN S. CAMPBELL, Assistant Professor of Clinical Medicine
B.A. (Auburn 2008); M.D. (Alabama, Birmingham 2012) [2015]
JOSHUA A. CAMPBELL, Assistant Clinical Professor of Oral and Maxillofacial Surgery
PAULOMI RAJII CAMPBELL, Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.A. (Michigan, Flint 1996); M.A. (Eastern Michigan 2005); Ph.D. (SUNY, Buffalo 2007) [2016]
THOMAS W. CAMPBELL, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.A., M.D. (Vanderbilt 1964, 1968) [1977]
W. BARTON CAMPBELL, Professor of Medicine
B.A. (Carleton College 1959); M.D. (Rochester 1963) [1970]
NATALIE CAMPO, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.S. (Illinois, Champaign 2004); M.D. (Texas, Galveston 2005) [2013]
CHRISTOPHER L. CANLAS, Assistant Professor of Clinical Anesthesiology
AIZE CAO, Research Assistant Professor of Biomedical Informatics
B.S. (Shanghai Medical [China] 1984); M.S. (Chinese Academy of Medical Sciences 2002) [2000]
CHRISTINA CAIN-SWOPE, Assistant Professor of Clinical Obstetrics and Gynecology
B.A. (Vanderbilt 1990); M.D. (Georgetown 1995) [2007]
ISIN CAKIR, Adjunct Research Assistant Professor of Molecular Physiology and Biophysics
B.S., B.S. (Bogazici [Turkey] 2003, 2003); Ph.D. (Brown 2009) [2017]
JUSTIN CALABRACE, Assistant in Anesthesiology
A.D.N. (Excelsior 2003); M.S.N. (Vanderbilt 2008) [2009]
M. WADE CALCUTT, Research Assistant Professor of Biochemistry
B.S. (Francis Marion 1996); Ph.D. (Wake Forest 2001) [2005]
SUSAN A. CALDERWOOD, Associate Professor of Clinical Anesthesiology
B.A. (Winthrop 1972); M.D. (Duke 1976) [1999]
BELINDA CADDWELL, Instructor in Clinical Obstetrics and Gynecology
B.S., M.S. (Colorado, Denver 2008, 2011) [2014]
MIRNA A. CALDWELL, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S., D.M.D. (Tufts 1997, 2001) [2006]
ROBERT CADDWELL, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Tennessee, Martin 1994); D.M.D. (Tufts 2003) [2006]
CORY L. CALENDINE, Assistant Professor of Clinical Orthopaedic Surgery and Rehabilitation
B.S. (Freed-Hardeman 1996); M.D. (UT Health Science Center [Tennessee] 2001) [2009]
CYNTHIA R. CALISI, Assistant Clinical Professor of Pediatrics
B.S. (Western Kentucky 1995); M.D. (Louisville 1999) [2003]
DAVID J. CALKINS, Denis M. O’Day, M.B.B.S., Chair in Ophthalmology and Visual Sciences; Professor of Ophthalmology and Visual Sciences; Professor of Psychology; Professor of Pharmacology
B.S. (Michigan 1989); Ph.D. (Pennsylvania 1995) [2004]
STEPHEN TODD CALLAHAN, Associate Professor of Pediatrics
B.S. (Arkansas Tech 1990); M.D. (Arkansas 1994); M.P.H. (Harvard 2002) [2000]
STEPHEN M. CAMARATA, Professor of Hearing and Speech Sciences; Professor of Psychiatry and Behavioral Sciences
B.A., M.A. (San Diego State 1979, 1981); Ph.D. (Purdue 1984) [1990]
WILLIAM R. CAMERON, JR., Assistant in Surgery; Adjunct Instructor in Nursing
B.A. (Colorado Christian 1989); B.S.N. (Middle Tennessee State 2006); M.S.N. (Vanderbilt 2009) [2012]
COREY D. CAMPBELL, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.S. (Ohio 2000); D.O. (Nova Southeastern 2004) [2009]
J. JEFFREY CARR, Cornelius Vanderbilt Chair in Radiology and Radiological Sciences; Professor of Radiology and Radiological Sciences; Professor of Biomedical Informatics; Professor of Medicine
B.A., M.D. (Vanderbilt 1985, 1989); M.S. (Wake Forest 1998) [2013]

THOMAS JOSEPH CARR, Associate Clinical Professor of Pediatrics
B.A. (Notre Dame 1992); M.D. (Loyola 1996) [1999]

BARBARA GISELLA CARRANZA LEON, Assistant Professor of Medicine
M.D. (Universidad Peruana ‘Cayetano Heredia’ [Peru] 2006) [2015]

ERICA J. CARRIER, Research Assistant Professor of Medicine
B.S. (Guilford 1998); Ph.D. (Medical College of Wisconsin 2005) [2010]

FRANK E. CARROLL, JR., Professor of Clinical Radiology and Radiological Sciences, Emeritus
B.S. (Saint Joseph’s [New York] 1963); M.D. (Hahnemann Medical 1967) [1999]

KATHERINE E. CARROLL, Assistant in Anesthesiology
B.S.N. (Oklahoma Baptist 2004); M.S.N. (Vanderbilt 2013) [2014]

KECIA N. CARROLL, Associate Professor of Pediatrics

ROBERT J. CARROLL, Research Assistant Professor of Biomedical Informatics
M.S., Ph.D. (Vanderbilt 2011, 2014) [2015]

ROBERT P. CARSON, Assistant Professor of Pediatrics; Assistant Professor of Pharmacology
B.S. (South Dakota 1998); Ph.D., M.D. (Vanderbilt 2001, 2005) [2011]

BRUCE D. CARTER, Professor of Biochemistry
B.S. (Alma 1986); Ph.D. (Michigan 1992) [1997]

JEFFREY B. CARTER, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Tufts 1972); D.M.D. (Connecticut, Stamford 1976); M.D. (Vanderbilt 1978) [1988]

CARISSA J. CASCIO, Assistant Professor of Psychiatry and Behavioral Sciences
B.S. (Baylor 1997); Ph.D. (Emory 2003) [2007]

AUDREY JANE CASE, Assistant in Medicine
B.S.N. (North Carolina 1993); M.S.N. (Old Dominion 1997); D.N.P. (Vanderbilt 2010) [1998]

JAMES N. CASEY, Instructor in Clinical Obstetrics and Gynecology
B.S., M.D. (Virginia 2006, 2011) [2015]

ROBERT J. CASEY, Assistant Professor of Clinical Pediatrics

TABITHA ANNE CASILLI, Clinical Instructor in Pediatrics
B.S. (Middle Tennessee State 2002); M.D. (East Tennessee State 2010) [2015]

CHARLES F. CASKER, Assistant Professor of Radiology and Radiological Sciences; Assistant Professor of Biomedical Engineering
B.S. (Texas 2004); Ph.D. (California, Davis 2008) [2013]

JAMES E. CASSAT, Assistant Professor of Pediatrics; Assistant Professor of Pathology, Microbiology and Immunology; Assistant Professor of Biomedical Engineering

EMILY H. CASTELLANOS, Instructor in Medicine
B.S. (Stanford 2004); M.D. (Vanderbilt 2009) [2012]

RUTH CASTIELLO, Assistant in Cardiac Surgery
B.S.N. (Florida 1989); M.S. (South Florida 1993) [2015]

JESSICA L. CASTILHO, Assistant Professor of Medicine
B.A. (Washington University 2003); M.P.H., M.D. (Johns Hopkins 2007, 2008) [2015]

MARCIE S. CASTLEBERRY, Associate Clinical Professor of Pediatrics
B.S. (Auburn 1987); M.D. (Louisiana State, Shreveport 1993) [2007]

JUSTIN M. M. CATES, Professor of Pathology, Microbiology and Immunology

JAMES R. CATO, Associate Clinical Professor of Medicine
B.A., M.D. (Vanderbilt 1974, 1979) [1986]

THOMAS F. CATRON, Associate Professor of Medical Education and Administration; Associate Professor of Pediatrics
B.A. (Virginia 1970); M.S., Ph.D. (Peabody 1982, 1989) [1990]

MICHAEL F. CAUCCI, Assistant Professor of Obstetrics and Gynecology; Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.S. (Scranton 2000); M.D. (Georgetown 2004) [2009]

KERRI L. CAVANAUGH, Associate Professor of Medicine
A.B. (Dartmouth 1995); M.D. (Yale 1999); M.H.S. (Johns Hopkins 2006) [2006]

LAURA E. CEDO CINTRON, Instructor in Clinical Obstetrics and Gynecology
B.S. (Universidad Interamericana de Puerto Rico [Puerto Rico] 2002); M.D. (Universidad Central del Caribe [Puerto Rico] 2010) [2016]

ROSETTE J. CHAKKALAKAL, Assistant Professor of Medicine
B.S. (Miami 2003); M.D. (Miami [Florida] 2006) [2012]

ANURADHA BAPSI CHAKRAVARTHY, Professor of Radiation Oncology
B.S. (Johns Hopkins 1978); M.D. (George Washington 1983) [1998]

G. ROGER CHALKLEY, Senior Associate Dean for Biomedical Research, Education and Training; Professor of Molecular Physiology and Biophysics; Professor of Medical Education and Administration (VU)

DAVID E. CHAMBERS, Assistant Clinical Professor of Medicine
B.S. (Austin Peay State 1978); Ph.D., M.D. (South Alabama 1983, 1986) [2000]

EUGENE P. CHAMBERS, Jr., Assistant Clinical Professor of Surgery
B.S. (Millsaps 1983); M.D. (Mississippi, Jackson 1990) [2008]

JILL F. CHAMBERS, Associate Clinical Professor of Obstetrics and Gynecology
B.S. (Vanderbilt 1971); M.D. (Alabama, Birmingham 1974) [1978]

JOHN W. CHAMBERS, JR., Associate Clinical Professor of Pediatrics

MARK R. CHAMBERS, Instructor in Clinical Medicine; Instructor in Clinical Pediatrics
B.S. (Miami [Ohio] 1988); M.D. (Ohio State 1993) [2010]

LOLA B. CHAMBLESS, Assistant Professor of Neurological Surgery
B.S. (Stanford 2003); M.D. (Vanderbilt 2005) [2012]

JOHN CHRISTOPHER CHAMPION, Assistant Professor of Emergency Medicine
B.S.E. (Duke 2006); M.B.A. (Rice 2011); M.D. (Baylor 2011) [2014]

MARY CLARE CHAMPION, Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.A. (Rhodes College 1996); M.A., Ph.D. (Tennessee 2002, 2005) [2016]

RACHEL WERGIN CHAMPION Assistant Professor of Medicine
B.S.E. (Duke 2006); M.D. (Texas, Houston 2011) [2015]

CHARLES G. CHANDLER, Associate Clinical Professor of Pediatrics
B.A. (Vanderbilt 1976); M.D. (UT Health Science Center [Tennessee] 1980) [2007]

RAKESH CHANDRA, Professor of Otolaryngology
B.S. (Virginia Polytechnic Institute 1993); M.D. (Maryland 1997) [2014]

DEEPA CHANDRASEKARAN, Assistant Professor of Clinical Ophthalmology and Visual Sciences

RAMEELA CHANDRASEKHAR, Assistant Professor of Biostatistics
B.S. (Calicut, Thrissur [India] 2004); M.A. (SUNY, Brooklyn 2008); Ph.D. (SUNY, Buffalo 2011) [2011]

MEERA CHANDRASHKEVAR, Assistant Professor of Clinical Anesthesiology
M.B.B.S. (Bangalore [India] 1979) [1999]

SAM S. CHANG, Patricia and Rodes Hart Chair in Urologic Surgery; Professor of Urologic Surgery; Professor of Medicine

PHILIP CHANIN, Assistant Clinical Professor of Psychiatry and Behavioral Sciences

J. CALVIN CHANNELL, Clinical Instructor in Obstetrics and Gynecology
B.S. (Vanderbilt 2008) [1998]

PHILIP W. CHAPMAN, Instructor in Obstetrics and Gynecology
B.S. (Vanderbilt 1973); M.N. (Florida 1966) [2005]
ROBIN CHAPMAN, Assistant in Medicine
B.S.N. (Western Carolina 1986); M.S.N. (Emory 2005) [2016]

JAMES DAVID CHAPPELL, Research Associate Professor of Pediatrics

RAVI S. CHARI, Clinical Professor of Surgery
M.D. (Saskatchewan [Canada] 1989); M.B.A. (Vanderbilt 2008) [2008]

PHILIP DAVID CHARLES, Assistant Dean for Medical School Admissions; Professor of Neurology
B.S., M.D. (Vanderbilt 1986, 1990) [1994]

CODY CHASTAIN, Assistant Professor of Medicine
B.Sc. (Southern Adventist 2004); M.D. (Loma Linda 2008) [2014]

CHAYLA MURIEL CHASTEN, Instructor in Clinical Medicine
B.S. (Clark Atlanta 2004); M.S. (Indiana, Indianapolis 2006); M.D. ( Meharry Medical 2010) [2016]

ERIC MARTIN CHAZEN, Clinical Professor of Pediatrics
B.A. (Vanderbilt 1952); M.D. (UT Health Science Center [Tennessee] 1955) [1961]

WALTER J. CHAZIN, Chancellor’s Chair in Medicine; Professor of Biochemistry
B.S. (McGill [Canada] 1975); Ph.D. (Concordia, Montreal [Canada] 1983) [2000]

GEORGE N. CHEU, Clinical Instructor in Ophthalmology and Visual Sciences
B.S. (Rice 1984); M.D. (East Tennessee State 1988) [1996]

EDUARD Y. CHEKMENEV, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Physics; Associate Professor of Biomedical Engineering
B.S. (Perm State [Russia] 1998); Ph.D. (Louisville 2003) [2009]

QINGXIA CHEN, Associate Professor of Biostatistics; Associate Professor of Biomedical Informatics
B.S. (University of Science and Technology of China, Hefei 1999); M.S. (Pittsburgh 2001); Ph.D. (North Carolina 2005) [2006]

GUANHUA CHEN, Assistant Professor of Biostatistics
B.S. (Huazhong University of Science and Technology [China] 2007); M.S., Ph.D. (North Carolina 2010, 2014) [2014]

CHU-LAN CHEN, Research Assistant Professor of Biostatistics
B.S., M.S. (National Taiwan 1982, 1984); Ph.D. (North Carolina State 1994) [2004]

JIAN-CHUN CHEN, Research Associate Professor of Medicine

JIN CHEN, Professor of Medicine; Professor of Cancer Biology; Professor of Cell and Developmental Biology
M.D. (Shanghai Medical [China] 1984); Ph.D. (Harvard 1991) [1997]

JUN-SONG CHEN, Research Instructor in the Department of Cell and Developmental Biology
B.S. (Zhejiang [China] 1994); Ph.D. (Shanghai Institute of Biochemistry [China] 2001) [2017]

KONG Y. CHEN, Adjunct Assistant Professor of Medicine

LI MIN CHEN, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Psychology

PATTY H. CHEN, Assistant Professor of Pathology, Microbiology and Immunology
B.B.Sc. (Simon Fraser [Canada] 1989); D.V.M. (Atlantic Veterinary Medicine [Canada] 1999) [2010]

WEI CHEN, Research Associate Professor of Medicine

WENBAO CHEN, Associate Professor of Molecular Physiology and Biophysics
B.S. (Hunan Normal [China] 1985); M.S. (Washington State 1993); Ph.D. (Oregon Health and Science 1997) [2008]

YOU CHEN, Assistant Professor of Biomedical Informatics
B.S. (Fuzhou [China] 2004); Ph.D. (Chinese Academy of Sciences 2010) [2015]

HUIFANG CHENG, Research Associate Professor of Medicine
M.D. (Peking Union Medical [China] 1968); M.S. (Beijing Medical [China] 1981) [1995]

LEO K. CHENG, Adjunct Assistant Professor of Surgery

CHRISTY M. CHERKESKY, Assistant in Neurological Surgery
M.S.N. (Vanderbilt 2009) [2011]

EDWARD F. CHERNEY, Associate Professor of Clinical Ophthalmology and Visual Sciences
A.B. (California, Davis 1969); M.D. (California, Los Angeles 1973) [2002]

ALAN D. CHERRINGTON, Jacquelyn A. Turner and Dr. Dorothy J. Turner Chair in Diabetes Research; Professor of Molecular Physiology and Biophysics; Professor of Medicine

CAROLINE H. CHESTER, Assistant Clinical Professor of Plastic Surgery
B.S. (Vanderbilt 1975); M.D. (UT Health Science Center [Tennessee] 1983) [2002]

DAVID H. CHESTNUT, Professor of Anesthesiology
B.S. (Samford 1974); M.D. (Alabama, Birmingham 1978) [2014]

ANDREW C. CHEUNG, Assistant Clinical Professor of Oral and Maxillofacial Surgery

JOYCE CHEUNG-FLYNN, Research Associate Professor of Surgery

MICHAEL HENG-JAH CHI, Instructor in Anesthesiology
B.E., M.D. (Vanderbilt 2008, 2012) [2016]

CHIN CHIANG, Professor of Cell and Developmental Biology

GEOFFREY CHIDSEY, Assistant Professor of Medicine
B.S. (Purdue 1990); M.D. (Indiana, Indianapolis 1994) [2006]

PETER ANTHONY CHIN, Associate Professor of Clinical Anesthesiology

KELSEY ANNE CHINNADURAI, Assistant in Anesthesiology
B.S.N. (Carroll College 2006); M.S.N. (Vanderbilt 2013) [2014]

SIVAKUMAR CHINNADURAI, Associate Professor of Otolaryngology

SALLAYA CHINRATANALAB, Assistant Professor of Medicine
M.D. (Mahidol [Thailand] 1991) [2001]

WICHAI CHINRATANALAB, Assistant Professor of Clinical Medicine
M.D. (Mahidol [Thailand] 1990) [2002]

DAVID CHISM, Assistant Professor of Medicine
B.A. (Georgetown 1997); M.S. (Tulane 2003); M.D. (Tennessee, Memphis 2008) [2016]

ROHAN V. CHITALE, Assistant Professor of Neurological Surgery; Assistant Professor of Radiology and Radiological Sciences
B.A. (Pennsylvania 2003); M.D. (Jefferson Medical 2007) [2015]

SOOJA CHO, Assistant Professor of Physical Medicine and Rehabilitation
B.S. (Northwestern 1967); M.D. (Tufts 2001) [2012]

SUNG HOON CHO, Research Assistant Professor of Pathology, Microbiology and Immunology
B.S. (Kongju National University 1997); Ph.D. (Gwangju Institute of Science and Technology [Korea] 2004) [2011]

CHUN W. CHOI, Assistant Professor of Cardiac Surgery

EUNYOUNG CHOI, Research Instructor in Surgery
B.S. (Seoul Women’s [Korea] 2003); M.S., Ph.D. (Gwangju Institute of Science and Technology [Korea] 2005, 2009) [2014]

Gloria W. Choi, Assistant Professor of Clinical Pediatrics
B.S. (Massachusetts Institute of Technology 2003); M.D. (California, Davis 2011) [2015]

Hyehun Choi, Research Assistant Professor of Pediatrics
B.S. (Handong [Korea] 2004); M.S. (Seoul National [Korea] 2006); Ph.D. (Medical College of Georgia 2011) [2016]

Leena Choi, Associate Professor of Biostatistics
LINDSEY W. COOPER, SR., Assistant Clinical Professor of Oral and Maxillofacial Surgery
D.M.D. (Kentucky, Lexington 1975) [2003]

MICHAEL K. COOPER, Associate Professor of Neurology
B.S. (Rhodes College 1987); M.D. (Alabama, Birmingham 1992) [2002]

SETH ALAN COOPER, Instructor in Orthopaedic Surgery and Rehabilitation
B.A. (Washington University 2007); M.D. (UT Health Science Center [Tennessee] 2011) [2016]

ROBERT SETH COOPER, Clinical Professor of Medicine
B.S., M.D. (Louisiana State 1967, 1971) [1976]

TIMOTHY J. COOPER, Assistant Professor of Pediatrics; Assistant Professor of Psychology; Assistant Professor of Psychiatry and Behavioral Sciences
B.A. (Christian Brothers 1986); M.A. (Middle Tennessee State 1992); Psy.D. (Spalding 1999) [2006]

TRISHA L. COOPER, Assistant in Neurological Surgery
B.S. (Tennessee 2005); M.S. (Trevecca Nazarene 2007) [2012]

WILLIAM O. COOPER, Cornelius Vanderbilt Chair; Professor of Pediatrics; Professor of Health Policy

BILLY H. COPeland II, Assistant Professor of Clinical Medicine
B.S. (Tennessee 1997); M.D. (East Tennessee State 2003) [2010]

ELIZABETH ANNE COPENHAVER, Instructor in Clinical Pediatrics
B.S. (Louisiana, Monroe 1997); M.D. (Louisiana State 2003) [2007]

ROBERT FRANK CORNELL, Assistant Professor of Medicine

CARLTON W. CORNETT, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.A. (Huntingdon 1982); M.S.W. (Georgia 1984) [2007]

DALE SHANNON CORNETT, Adjunct Assistant Professor of Biochemistry
B.S. (Eastern Kentucky 1988); Ph.D. (Georgia 1993) [2002]

HERMAN CORREA, Associate Professor of Pathology, Microbiology and Immunology
M.D. (Universidad del Valle [Colombia] 1983) [2006]

Pelayo Correa, Professor of Medicine, Emeritus
M.D. (Universidad de Antioquia [Colombia] 1940) [2005]

DAVID CORTEZ, Ingram Professor of Cancer Research; Professor of Biochemistry; Professor of Cancer Biology
B.S. (Illinois, Champaign 1993); Ph.D. (Duke 1997) [2002]

WILLIAM TIMOTHY COSTELLO, Assistant Professor of Clinical Anesthesiology
B.A. (Ohio State 2000); M.D. (UT Health Science Center [Tennessee] 2006) [2011]

DANIEL COTTREL, Assistant Professor of Clinical Medicine
B.A. (Boston University 2001); M.D. (George Washington 2006) [2017]

ALLISON C. COUDEN, Associate Clinical Professor of Pediatrics
B.S. (Emory 1992); M.D. (UT Health Science Center [Tennessee] 1996) [2002]

LAURA B. COULAM, Instructor in Clinical Neurology

TIMOTHY L. COVER, Professor of Medicine; Professor of Pathology, Microbiology and Immunology
B.S. (Muhlenberg 1980); M.D. (Duke 1984) [1990]

RONALD L. COWAN, Professor of Psychiatry and Behavioral Sciences; Professor of Psychology; Professor of Radiology and Radiological Sciences
B.S. (Christian Brothers 1984); Ph.D. (UT Health Science Center [Tennessee] 1990); M.D. (Cornell 1994) [2002]

CHARLES L. COX III, Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.E. (Vanderbilt 1998); M.D. (UT Health Science Center [Tennessee] 2002); M.P.H. (Vanderbilt 2010) [2008]

JOY D. COX, Clinical Instructor in Obstetrics and Gynecology

NANCY J. CORBETT, Mary Phillips Edmonds Chair Professor of Medicine
B.S. (Notre Dame 1975); Ph.D. (Yale 1982) [2015]

LAURA S. CROOK, Assistant in Medicine
B.S. (Auburn 1994); M.S.N. (Vanderbilt 2002) [2008]

ALLEN SCOTT CRAIG, Associate Clinical Professor of Health Policy
B.A. (SUNY, Geneseo 1978); M.D. (Yeshiva 1982) [1998]

ELIZABETH VERA CRAIN, Assistant in Clinical Radiology and Radiological Sciences
B.S. (Michigan 2007); M.D. (Pittsburgh 2011) [2016]

KAYLIN S. CRAIN, Assistant Professor of Clinical Medicine
B.S. (Louisiana State 2007); M.D. (Louisiana State, New Orleans 2012) [2015]

GABRIELLA L. CRES, Assistant Professor of Pediatrics; Assistant Professor of Clinical Radiology and Radiological Sciences
B.A. (Williams and Mary 1994); M.D. (Boston University 2004) [2010]

DEBRA M. CRAVEN, Assistant in Medicine
B.S. (Tennessee 1999); M.S.N. (Vanderbilt 2010) [2011]

ERIKA L. CRAWFORD, Assistant Clinical Professor of Pediatrics
B.S. (Hampton 2000); M.D. (Meharry Medical 2004) [2007]

JEFFREY L. CREAL, Professor of Radiology and Radiological Sciences

CLARENCE BUDDY CREECH, Associate Professor of Pediatrics
B.S. (Vanderbilt 1995); M.D. (Tennessee, Memphis 1999); M.P.H. (Vanderbilt 2006) [2008]

MARSHALL H. CRENSHAW, Assistant Professor of Medicine
B.S. (Rhodes College 1978); M.D. (Tulare 1982) [2006]

THERESA A. CRESSMAN, Assistant in Radiation Oncology
B.S.N. (Austin Peay State 2006); M.S.N. (Vanderbilt 2011) [2012]

CANDICE CREWSE, Assistant Clinical Professor of Pediatrics
B.S. (Christian Brothers 2004); M.D. (East Tennessee State 2008) [2011]

JENNIFER CRICHTON, Assistant in Anesthesiology
A.D.N. (Aquinas College [Tennessee] 2004); M.S.N. (Vanderbilt 2011) [2014]

MARIA ANN CRISPENS, Associate Professor of Obstetrics and Gynecology
B.S. (Emory 1987); M.D. (Alabama, Birmingham 1991) [2002]

DAVID CRNODORI, Assistant in Pediatrics
B.A. (North Carolina, Charlotte 1995); M.S.Ed. (Walden 2010) [2015]

KRISTINA MICHELLE CROCKER, Assistant in Physical Medicine and Rehabilitation
A.S.N. (Tennessee State 2011); B.S.N. (Austin Peay State 2012); M.S.N. (Tennessee State 2014) [2014]

CHRISTY J. CROCKETT, Assistant Professor of Anesthesiology
B.S., M.D. (North Carolina 2005, 2009) [2016]

LESLIE J. CROFFORD, Wilson Family Chair in Medicine; Professor of Medicine; Professor of Pathology, Microbiology and Immunology
B.A. (Vanderbilt 1980); M.D. (UT Health Science Center [Tennessee] 1984) [2013]

OSCAR B. CROFORD, Professor of Medicine, Emeritus
B.A., M.D. (Vanderbilt 1952, 1955) [1959]

ROBERT M. CRONIN, Assistant Professor of Biomedical Informatics; Assistant Professor of Pediatrics; Assistant Professor of Medicine
B.S., M.Eng. (Cornell 2001, 2002); M.D. (Ohio State 2009) [2013]

TRAVIS CROOK, Assistant Professor of Pediatrics
B.S. (Clemson 2005); M.D. (Ohio State 2009) [2013]
MIHIR JITENDRA DESAI, Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.S. (Davidson 2004); M.S., M.D. (Georgetown 2005, 2009) [2015]
NEERAV A. DESAI, Assistant Professor of Pediatrics
B.E. (Vanderbilt 1998); M.D. (UT Health Science Center [Tennessee] 2002) [2006]
JAYANT K. DESHPANDE, Adjunct Professor of Anesthesiology
A.B. (Boston University 1973); M.D. (UT Health Science Center [Tennessee] 1976); M.P.H. (Vanderbilt 2003) [1990]
CINDY ANN DESIO, Assistant in Medicine
B.S.N. (Union [Tennessee] 2002); M.S.N. (Vanderbilt 2003) [2016]
M. SHEILA DESMOND, Professor of Clinical Pediatrics
B.A. (City University of New York, Queens College 1971); M.D. (New York Medical 1975) [2009]
MOHAMED MOKHTAR DESOUKI, Associate Professor of Pathology, Microbiology and Immunology
WOLF-DIETRICH DETTBARN, Professor of Pharmacology, Emeritus
M.D. (Goettingen, Germany 1953) [1968]
KIRSTEN BETH DETTORRE, Assistant Professor of Emergency Medicine
B.S. (Kent State 2002); M.D. (Northeastern Ohio Universities 2006) [2009]
PATRICIA A. DETZEL, Assistant Professor of Clinical Obstetrics and Gynecology
B.S.N. (Cincinnati 1994); M.S.N. (Vanderbilt 1998) [2010]
ARIEL Y. DEUTCH, James G. Blakemore Chair in Psychiatry and Behavioral Sciences; Professor of Psychiatry and Behavioral Sciences; Professor of Pharmacology
B.A. (Vanderbilt 1973); Ph.D. (Georgia 1983) [1996]
CLINTON J. DEVIN, Associate Professor of Orthopaedic Surgery and Rehabilitation; Associate Professor of Neurological Surgery
B.S. (Wyoming 1998); M.D. (Vanderbilt 2002) [2009]
JESSICA K. DEVIN, Assistant Professor of Medicine
VICTORIA J. DEVITO, Associate Professor of Clinical Pediatrics
B.S. (Ohio 1976); M.D. (Medical College of Ohio 1979) [2005]
JAMES DEWAR, Assistant Professor of Biochemistry
M.A. [Bath (U.K.) 2007]; Ph.D. (Newcastle University 2011) [2016]
JOSEPH EDWARD DEWEESEE, Adjunct Assistant Professor of Biochemistry
B.S. (Freed-Hardeman 2004); Ph.D. (Vanderbilt 2009) [2009]
CHARLENE M. DEWEY, Professor of Medical Education and Administration; Professor of Medicine
B.S. (Bradley 1985); M.D. (Morehouse 1990); M.Ed. (Houston 2004) [2007]
TRACEY L. DEWIRE, Assistant in Surgery
B.S. (Tennessee 1990); M.S.N. (Vanderbilt 2008) [2009]
JUDITH DEXEIER, Adjunct Instructor in Biomedical Informatics
B.S. (Central Florida 2003); M.S., Ph.D. (Vanderbilt 2006, 2011) [2011]
ALEX B. DIAMOND, Assistant Professor of Orthopaedic Surgery and Rehabilitation; Assistant Professor of Pediatrics
B.A. (Duke 1998); D.O. (Philadelphia College of Osteopathic Medicine 2003); M.P.H. (Vanderbilt 2011) [2008]
EDUARDO COELHO DIAS, Instructor in Clinical Surgery; Instructor in Obstetrics and Gynecology
M.D. (Universidade Federal do Rio Grande do Sul [Brazil] 2000) [2016]
EMMANUELLE DIBENEDETTO, Centennial Professor of Mathematics; Professor of Molecular Physiology and Biophysics
B.A. (Florence [Italy] 1975); Ph.D. (Texas 1978) [2000]
S. KENT DICKESON, Research Assistant Professor of Pathology, Microbiology and Immunology
B.S. (Missouri State 1985); Ph.D. (Kansas 1991) [2003]
IRINA A. DIDIER, Instructor in Clinical Pediatrics; Instructor in Clinical Medicine
B.S. (Gomel State Medical [Belarus] 1980); M.D. (Minsk State Medical [Belarus] 1987) [2005]
ANDRE M. DIEDRICH, Research Professor of Medicine; Research Professor of Biomedical Engineering
KEVIN L. DIEHL, Assistant Professor of Clinical Radiology and Radiological Sciences
B.S. (Arizona State 2004); D.O. (Western University of Health Sciences [California] 2008) [2016]
MARY S. DIETRICH, Professor of Nursing (Statistics and Measurement); Professor of Psychiatry and Behavioral Sciences
B.S. (Baylor College [Kansas] 1979); M.S. (Fort Hays State 1986); Ph.D. (Vanderbilt 1996) [2006]
SERGEY DIKALOV, Research Associate Professor of Medicine
Ph.D. (Russian Academy of Science, Siberian Branch [Russia] 1994); M.S. (Novosibirsk State [Russia] 1999) [2011]
ANNA DIKAHOVA, Research Assistant Professor of Medicine
M.S. (Novosibirsk State [Russia] 1987); Ph.D. (Institute of Cytology and Genetics [Russia] 1993) [2011]
MARY DIMICELI, Assistant Professor of Anesthesiology
B.S. (Manhattan 2002); M.D. (Georgetown 2007) [2014]
ELIA C. DIMITRI, Clinical Professor of Pediatrics
B.A. (East Tennessee State 1957); M.D. (UT Health Science Center [Tennessee] 1960) [2005]
THOMAS S. DINA, Professor of Radiology and Radiological Sciences, Emeritus
B.S. (Notre Dame 1961); M.D. (Northwestern 1965) [1994]
TEMUJIN DINARAM, Assistant Professor of Clinical Medicine
B.S. (New York 2001); M.D. (Ross 2009) [2017]
GEORGE X. DING, Professor of Radiation Oncology
TIANBING DING, Research Instructor in Obstetrics and Gynecology
HENRY EVAN DINGELE, Instructor in Emergency Medicine
B.S. (Furman 2009); M.D. (South Carolina 2013) [2016]
JESSICA MARY DINISICO, Assistant in Psychiatry and Behavioral Sciences
B.S.N. (Salem State 2009); M.S.N. (Vanderbilt 2013) [2015]
ANDREW DITTBERNER, Adjunct Assistant Professor of Hearing and Speech Sciences
B.A. (North Dakota 1996); M.S. (Arizona 1998); Ph.D. (Iowa 2002) [2006]
KURT F. DITTRICH, Assistant Professor of Clinical Anesthesiology
ROBERT S. DITTS, Senior Associate Dean for Population Health Sciences; Albert and Bernard Werthan Chair in Medicine; Professor of Medicine; Associate Professor of Nursing; Director of the Institute for Medicine and Public Health
B.S.I.E. (Purdue 1979); M.D. (I. M. Sechenov Moscow Medical Academy [Russia] 1994); M.S. (Novosibirsk State [Russia] 1999) [2011]
JOHN H. DIXON, JR., Associate Professor of Medicine
B.S. (Duke 1969); M.D. (Vanderbilt 1973) [1996]
ROGER R. DMUCHOWSKI, Professor of Urologic Surgery; Professor of Obstetrics and Gynecology
B.A. (Trinity [Texas] 1979); M.D. (Texas, Galveston 1983); M.Mgt. (Vanderbilt 2012) [2002]
KATHERINE DOBIE, Associate Professor of Clinical Anesthesiology
B.S. (South Carolina 1985); M.D. (East Tennessee State 2003) [2009]
CHRISTOPHER HERBERT DODD, Assistant Clinical Professor of Pediatrics
B.S. (Samford 1998); Ph.D., M.D. (Alabama, Birmingham 2005) [2015]
DEBRA A. DODD, Professor of Clinical Pediatrics
TRACEY E. DOERING, Assistant Clinical Professor of Medicine
B.S. (Rutgers, Newark 1981); M.D. (Johns Hopkins 1985) [1989]
MARK D. DOES, Professor of Biomedical Engineering; Professor of Electrical Engineering; Professor of Radiology and Radiological Sciences; Director, Graduate Studies, Biomedical Engineering

NIDHI KUMAR DOLE, Assistant Professor of Clinical Medicine
B.S. (South Carolina 2007); M.D. (Medical University of South Carolina 2011) [2015]

ROWENA JOY DOLOR CUFFE, Adjunct Associate Professor of Medicine

BRIAN S. DONAHUE, Professor of Anesthesiology; Professor of Pediatrics

EDMUND J. DONAHUE, Assistant in Anesthesiology; Adjunct Instructor in Nursing
B.S. (King’s [Pennsylvania] 1979); M.P.A. (Nebraska 2002) [2010]

MANUS J. DONAHUE, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Psychiatry and Behavioral Sciences; Associate Professor of Neurology

PAULA DONAHUE, Research Assistant Professor of Physical Medicine and Rehabilitation
D.P.T. (Northwestern 2002); M.B.A. (Johns Hopkins 2007) [2012]

RAFE M. DONAHUE, Adjunct Associate Professor of Biostatistics
B.S. (Dayton 1987); Ph.D. (Colorado State 1992) [2008]

SEAN P. DONAHUE, Sam and Darthea Coleman Chair in Pediatric Ophthalmology; Professor of Ophthalmology and Visual Sciences; Professor of Pediatrics; Associate Professor of Neurology
B.S. (Dayton 1984); Ph.D., M.D. (Emory 1988, 1989) [1995]

KATHLEEN DONAIS, Assistant in Surgery

XINHONG DONG, Assistant Professor of Microbiology and Immunology at Meharry Medical College; Adjunct Assistant Professor of Medicine at Vanderbilt University School of Medicine
B.S. (Wuhan [China] 1992); Ph.D. (Chinese Academy of Sciences, Beijing 1997) [2006]

EDWIN F. DONELLEY, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Biomedical Engineering
B.S., M.D. (Cincinnati 1992, 1996); Ph.D. (Vanderbilt 2003) [2000]

JENNIFER M. DONELLEY, Assistant Clinical Professor of Pediatrics
B.S., M.D. (Cincinnati 1992, 1996) [1999]

PETER D. DONOFIO, Professor of Neurology
B.S. (Notre Dame 1972); M.D. (Ohio State 1975) [2006]

STACY L. DORRIS, Assistant Professor of Pediatrics
B.A. (Columbia College 1997); M.D. (Vanderbilt 2007) [2012]

RICHARD D. DORTCH, Assistant Professor of Radiology and Radiological Sciences; Research Assistant Professor of Biomedical Engineering
B.S. (Tennessee, Chattanooga 2002); M.S., Ph.D. (Vanderbilt 2006, 2009) [2012]

GLENN C. DOUGLAS, Instructor in Clinical Medicine
B.A. (South Florida 1991); M.D. (East Tennessee State 1998) [2007]

CHRISTINE K. DOVE, Assistant Professor of Clinical Radiology and Radiological Sciences
B.S. (Baylor 1959); M.D. (Louisville 1962) [1987]

JOHN W. DOWNING, Professor of Ophthalmology and Visual Sciences
B.S. (Baylor 1959); M.D. (Louisville 1962) [1987]

WONDER PURYEAR DRAKE, Associate Professor of Medicine; Associate Professor of Pathology, Microbiology and Immunology
B.S. (Alabama 1990); M.D. (Vanderbilt 1994) [2001]

DEBBIE J. DRAKE-DAVIS, Assistant Professor in Medicine
B.S.N. (Western Kentucky 1980); M.D.A. (Lipscomb 2002); M.S.N., D.N.P. (Vanderbilt 2004, 2012) [2007]

SISTER MARY DIANA DREGER, Assistant Clinical Professor of Medicine

PAUL BERNARD DRESSLER, Assistant Professor of Clinical Pediatrics
B.A. (Vanderbilt 2006); M.D. (Toledo 2010) [2016]

CYNTHIA Y. DRISKILL, Assistant in Pediatrics
B.S.N. (Tennessee 2000); M.S.N. (Vanderbilt 2002) [2006]

BRIAN C. DROLET, Assistant Professor of Plastic Surgery; Assistant Professor of Biomedical Informatics
B.A. (Johns Hopkins 2005); M.D. (Vanderbilt 2009) [2016]

SUSAN B. DRUMMOND, Senior Associate in Obstetrics and Gynecology
B.S.N., M.S.N. (Vanderbilt 1988, 1993) [2005]

STEPHANY N. DUDA, Assistant Professor of Biomedical Informatics
B.S.E. (Princeton 2002); M.S., Ph.D. (Vanderbilt 2005, 2011) [2011]

MARTHA SHAW DUKEH, Senior Associate in Obstetrics and Gynecology
B.A. (Washington University 1993); M.S. (Cincinnati 1996) [2001]

B. STEPHENS DUDLEY, Assistant Clinical Professor of Obstetrics and Gynecology

MELISSA COLLINS DUFF, Associate Professor of Hearing and Speech Sciences

BARBARA DUFFY, Associate in Pediatrics
B.S.N., M.S.N. (Vanderbilt 1980, 1991) [2005]

LAURA L. DUGAN, Abram C. Shmerling, M.D. Chair in Alzheimer’s and Geriatric Medicine; Professor of Medicine
S.B. (Massachusetts Institute of Technology 1981); M.D. (Ohio State 1987) [2014]

MARIA CARLO DUGGAN, Assistant Professor of Medicine
B.S. (Harvard 2006); M.D. (Vanderbilt 2010) [2014]

JESSICA DUIS, Assistant Professor of Pediatrics
M.S., B.A. (Northwestern 2006, 2006); M.D. (George Washington 2011) [2016]

ADRIENNE DULAN, Adjunct Instructor in Radiology and Radiological Sciences

DANIEL E. DULEK, Assistant Professor of Pediatrics
B.S. (Notre Dame 2000); M.D. (Washington University 2004) [2011]

CAROLINE V. DULEY, Assistant in Medicine
B.S. (Arizona 1997); M.S.N. (Vanderbilt 2001); MSN,WHNP,RN,WHNP [2003]

JOSHUA DULEY, Assistant in Pediatrics
B.S.N. (Murray State 2007); M.S.N. (Tennessee State 2016) [2016]

J. STEPHEN DUMMER, Professor of Medicine, Emeritus
B.A. (Wesleyan 1966); M.D. (Pittsburgh 1977) [1990]

JAMES A. DUNCAGE, Professor of Otolaryngology, Emeritus
B.S. (SUNY, Buffalo 1971); M.D. (Wisconsin 1975) [1986]

MARY C. DUNCK, Clinical Professor of Pediatrics
B.S. (William and Mary 1975); M.D. (Vanderbilt 1979) [1982]

G. DEWEY DUNN, Associate Professor of Medicine
B.A. (Louisiana College 1956); M.D. (Louisiana State 1960) [1971]

JOHN R. DUNN, Assistant Clinical Professor of Health Policy

JULIA PASSYN DUNN, Adjunct Instructor in Medicine
B.S. (Auburn 1998); M.D. (South Alabama 2002); M.S.C.I. (Vanderbilt 2010) [2008]

MELANIE A. DUNN, Clinical Instructor in Obstetrics and Gynecology

BRENT DUNWORTH, Assistant in Anesthesiology; Instructor in Nursing
B.S.N., M.S.N. (Pittsburgh 1996, 1999); M.B.A. (Waynesburg 2014) [2015]

WILLIAM D. DUPONT, Professor of Biostatistics; Professor of Health Policy
JOSEPH FAIZ, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Tennessee 2002); D.D.S. (Tennessee, Memphis 2009) [2012]

GRACE FALLIN Assistant in Cardiac Surgery
B.S.N. (Union [Tennessee] 2008); M.S.N. (Vanderbilt 2012) [2015]

WIAAM FALOUL, Assistant Professor of Clinical Neurology

SARAH FANDRE, Assistant Professor of Clinical Anesthesiology
B.A. (Texas 1995); M.D. (Texas A & M 2005) [2015]

JOHN Y. FANG, Associate Professor of Neurology

JOSEPH BURTON FANNING, Assistant Professor of Medicine
B.A. (Birmingham-Southern 1993); M.T.S. (Princeton Theological Seminary 2001); Ph.D. (Vanderbilt 2008) [2009]

MELISSA A. FARROW, Research Assistant Professor of Pathology, Microbiology and Immunology
B.A. (Regis College 1999); Ph.D. (Massachusetts, Boston 2005) [2013]

CHERYL ANN FASSLER, Assistant Clinical Professor of Medicine
B.S. (Notre Dame 1979); M.D. (Ohio State 1982) [1987]

MARQUETTA L. FAULKNER, Interim Chair and Professor of Internal Medicine at Meharry Medical College; Assistant Clinical Professor of Medicine at Vanderbilt University School of Medicine
B.S. (Texas Southern 1977); M.D. (Meharry Medical 1981) [1993]

LARRY MCNEILL FAUST, Associate Clinical Professor of Pediatrics
B.A. (Tennessee 1969); M.D. (UT Health Science Center [Tennessee] 1973) [2005]

MOHAMMAD FAROOQ FAZILI, Associate Professor of Clinical Pediatrics

CHARLES F. FEDERSPIEL, Professor of Preventive Medicine (Biostatistics), Emeritus

JAMES W. FELCH, Associate Professor of Clinical Ophthalmology and Visual Sciences
B.S. (Delaware 1968); Ph.D., M.D. (Vanderbilt 1973, 1977) [2007]

ANDREW S. FELTS, Research Instructor in Pharmacology
B.A. (Tennessee 2000); B.S. (Florida State 2002); Ph.D. (Vanderbilt 2007) [2015]

QIPING FENG, Assistant Professor of Medicine
Ph.D. (Peking Union Medical [China] 2006) [2012]

GERALD M. FENICHEL, Professor of Neurology, Emeritus
B.A. (Johns Hopkins 1955); M.D. (Yale 1959) [1969]

HUGH M. FENTRESS, Adjunct Assistant Professor of Pharmacology
B.Sc. (Tennessee State 1999); Ph.D. (Vanderbilt 2005) [2011]

IGOR A. FEOKTISTOV, Associate Professor of Medicine; Associate Professor of Pharmacology

JANE F. FERGUSON, Assistant Professor of Medicine

ROBINSON M. FERRE, Assistant Professor of Emergency Medicine
B.S. (Utah 1999); M.D. (Medical College of Wisconsin 2003) [2010]

P BRENT FERRELL, Research Instructor in Medicine
B.A. (Davidson 2000); M.D. (North Carolina 2009) [2015]

CLAUDE L. FERRELL III, Adjunct Assistant Professor of Anesthesiology
B.A. (Tennessee 1985); M.D. (UT Health Science Center [Tennessee] 1989) [1996]

NICHOLAS FERRELL, Research Instructor in Medicine
B.S., Ph.D. (Ohio State 2003, 2008) [2012]

MICHAEL J. FERRI, Assistant Clinical Professor of Psychiatry and Behavioral Sciences

STEPHEN W. FESIK, Orrin H. Ingram II Chair in Cancer Research; Professor of Biochemistry; Professor of Chemistry; Professor of Pharmacology
B.A. (College of the Holy Cross 1975); Ph.D. (Connecticut 1981) [2009]

JOSEPH FESSEL, Assistant Professor of Medicine; Assistant Professor of Pharmacology; Assistant Professor of Cancer Biology
B.S. (Evansville 1999); Ph.D., M.D. (Vanderbilt 2004, 2006) [2013]

IRENE D. FEURER, Research Professor of Biostatistics; Research Professor of Surgery

SUSAN L. FICKEN, Assistant in Medicine
B.S. (Missouri 1980); M.S.N. (Vanderbilt 1997) [1998]

JAMES F. RUCHT, Assistant Professor of Orthopaedic Surgery and Rehabilitation; Assistant Professor of Emergency Medicine
B.S. (Missouri, Rolla 1996); M.D. (UT Health Science Center [Tennessee] 2001) [2006]

SUZANNE FIEDL, Clinical Instructor in Pediatrics
B.A. (Indiana, Bloomington 2006); M.D. (Indiana, Indianapolis 2011) [2014]

JAMES P. FIELDS, Associate Clinical Professor of Medicine
B.A., M.S. (Texas 1953, 1954); M.D. (Texas, Galveston 1958) [1978]

ELLIOT M. FELSTEIN, Assistant Professor of Biomedical Informatics
B.A. (SUNY, Buffalo 1976); Ph.D. (Vermont 1984) [1998]

ESTUARDO FIGUEROA, Assistant Clinical Professor of Pediatrics
M.D. (Universidad de San Carlos de Guatemala 1993) [2009]

TIMOTHY J. FIGUEROA, Assistant in Medicine
B.S. (Miami 2006); M.S. (Trevecca Nazarene 2013) [2017]

EMMA FINAN, Associate in Psychiatry and Behavioral Sciences

LUKE R. FINCH, Instructor in Medical Education and Administration
B.S., M.A. (Murray State 2003, 2009); Ed.D. (East Tennessee State University 2013) [2014]

JO-DAVID FINE, Professor of Medicine; Professor of Pediatrics
B.S. (Yale 1972); M.D. (Kentucky, Lexington 1976); M.P.H. (North Carolina 1992) [2004]

BARBARA MARY FINGLETON, Assistant Professor of Cancer Biology

A. J. REID FINLAYSON, Associate Professor of Clinical Psychiatry and Behavioral Sciences
M.D. (Western Ontario [Canada] 1969); M.Mgt. (Vanderbilt 2014) [2001]

SAHRINA TANIS FINNEY, Instructor in Clinical Medicine; Instructor in Clinical Pediatrics
B.S. (Spuelm 1990); M.D. (Meharry Medical 1996) [2015]

MARY SUE FINO-SZUMSKI, Assistant Professor of Hearing and Speech Sciences
B.S. (Marywood 1986); M.S., Ph.D. (Vanderbilt 1987, 1997) [1997]

MELISSA A. FISCHER, Research Assistant Professor of Medicine
B.S.E. (Purdue 2003); M.S. (Indiana-Purdue, Fort Wayne 2006); Ph.D. (Vanderbilt 2011) [2015]

MICHELLE M. FISCHER, Associate Clinical Professor of Pediatrics
B.S. (Indiana, Fort Wayne 1990); M.D. (Indiana, Indianapolis 1994) [1998]

FRANK A. FISH, Professor of Pediatrics; Associate Professor of Medicine
A.B. (Wabash 1978); M.D. (Indiana, Bloomington 1983) [1990]

JACK FISHER, Associate Clinical Professor of Plastic Surgery; Adjunct Associate Professor of Nursing
B.S. (Illinois, Champaign 1969); M.D. (Emory 1973) [1987]

CHRISTINA TAULIEN FISKE, Assistant Professor of Medicine
B.S. (Pennsylvania State 1999); M.D. (Loyola 2003); M.P.H. (Vanderbilt 2009) [2009]

WILLIAM H. FISKE, Assistant Professor of Medicine
B.S. (Duke 1999); M.D., M.P.H. (Vanderbilt 2003, 2008) [2006]

RACHEL B. FISSELL, Assistant Professor of Medicine
B.A. (Yale 1991); M.S., M.D. (Maryland, Baltimore 1996, 1996) [2012]

WILLIAM H. FISSELL IV, Associate Professor of Medicine; Associate Professor of Biomedical Engineering
S.B. (Massachusetts Institute of Technology 1992); M.D. (Case Western Reserve 1998) [2012]

ROBERT WARNE FITCH, Associate Professor of Emergency Medicine; Associate Professor of Orthopaedic Surgery and Rehabilitation
B.S., M.D. (Wake Forest 1997, 2001) [2006]

ERIN LOUISE FITTS-CHRISTENSEN, Assistant in Medicine
B.S.N. (San Diego State 2009); M.S.N. (Alabama, Birmingham 2014) [2015]
NINA MIZUKI FITZGERALD, Assistant Professor of Clinical Pediatrics
B.A. (Wake Forest 2004); M.D. (St. George's U. 2009) [2016]

FERN FITZHENRY, Research Assistant Professor of Biomedical Informatics
B.S.N. (Chicago 1974); M.A. (Northwestern 1983); Ph.D. (Chicago 1997) [2000]

J. MICHAEL FITZPATRICK, Professor of Computer Science, Emeritus; Professor of Computer Engineering, Emeritus; Professor of Electrical Engineering, Emeritus; Professor of Neurological Surgery, Emeritus; Professor of Radiology and Radiological Sciences, Emeritus; Research Professor of Computer Science
B.S. (North Carolina 1967); Ph.D. (Florida State 1972); M.S. (North Carolina 1982) [1982]

ENGLISH C. FLACK, Assistant Professor of Clinical Pediatrics
B.S. (Wofford 2000); M.S., M.D. (Medical University of South Carolina 2002, 2007) [2014]

BRIAN K. FLANAGAN, Instructor in Clinical Radiology and Radiological Sciences
B.S. (Utah Valley State College [UT] 2006); D.O. (Kirkville College of Osteopathic Medicine 2011) [2016]

SHERYL BRYNNIE FLEISCH, Assistant Professor of Psychiatry and Behavioral Sciences
B.S., M.D. (Vanderbilt 2004, 2008) [2013]

ARTHUR C. FLEISCHER, Cornelius Vanderbilt Chair; Professor of Radiology and Radiological Sciences; Professor of Obstetrics and Gynecology
B.S. (Emory 1973); M.D. (Medical College of Georgia 1976) [1980]

AMY E. FLEMING, Associate Dean for Medical Student Affairs; Associate Professor of Pediatrics; Associate Professor of Medical Education and Administration (VUMC)
B.A., M.D. (Virginia 1993, 1997) [2007]

GEOFFREY M. FLEMING, Associate Professor of Pediatrics; Assistant Professor of Anesthesiology
B.S. (Florida 1993); M.D. (Virginia 1997) [2007]

IRMA D. FLEMING, Instructor in Clinical Surgery
B.S. (Spelman 2005); M.D. ( Meharry Medical 2009) [2016]

RICHARD MICHAEL FLEMING, Assistant Professor of Clinical Radiology and Radiological Sciences
B.S., M.S. (Memphis State 1973, 1978); M.D. (UT Health Science Center [Tennessee] 1983) [2016]

PHILIP E. FLEMING, Assistant Clinical Professor of Plastic Surgery
B.A. (Vanderbilt 1974); M.D. (Alabama, Birmingham 1979) [1987]

KEVIN DALE FLEMMONS, Assistant Professor of Medicine
B.S. (Texas Tech University 1997); M.D. (Texas, Galveston 2001) [2012]

LISA NICOLE FLEMMONS, Assistant in Medicine
B.S.N. (Tennessee Technological 2004); M.S.N. (Vanderbilt 2008) [2009]

MEGHAN S. FLEMMONS, Assistant Professor of Pediatrics; Assistant Professor of Clinical Ophthalmology and Visual Sciences
B.A. (Texas Tech University 1977); M.D. (Texas, Galveston 2003) [2013]

PAUL FLESER, Assistant Clinical Professor of Surgery
M.D. (Wayne State 1999) [2014]

LAUREN FLETCHER, Assistant in Surgery
B.S.N. (Virginia 2008); M.S.N. (Vanderbilt 2010) [2014]

MARK D. FLORA, Assistant Clinical Professor of Urologic Surgery
B.S. (Purdue 1981); M.D. (Indiana, Indianapolis 1985) [1991]

CHARLES ROBERT FLYNN, Assistant Professor of Surgery
B.S. (Montana State 1998); Ph.D. (Arizona State 2001) [2008]

EDWARD P. FODY, Clinical Professor of Pathology, Microbiology and Immunology
B.S. (Duke 1969); M.D. (Vanderbilt 1975) [2011]

AGNES B. FOGO, John L. Shapiro Chair in Pathology; Professor of Pathology, Microbiology and Immunology; Professor of Pediatrics; Professor of Medicine
B.A. (Tennessee, Chattanooga 1976); M.D. (Vanderbilt 1981) [1987]

ANNA L. FONG, Assistant in Anesthesiology
B.S. (California, San Diego 1994); M.S.N. (Vanderbilt 1998) [2010]

PETE P. FONG, Assistant Professor of Medicine
B.S., M.D. (Vanderbilt 1994, 1998) [2007]

CHRISTOPHER J. FORNESBECK, Assistant Professor of Biostatistics

RICARDO B. FONSECA, Assistant Professor of Clinical Radiology and Radiological Sciences
M.D. (Sao Paulo [Brazil] 1993) [2003]

MICHELLE FOOTE-PEARCE, Associate in Psychiatry and Behavioral Sciences
M.S.N. (Yale 1980); B.S.N. (Fitchburg State 1984); D.Min. (Graduate Theological Foundation 2005); M.S. (Treviteca Nazarene 2006) [2009]

RACHEL C. FORBES, Assistant Professor of Surgery
B.S., M.D. (Vanderbilt 2001, 2005); M.B.A. (Ohio State 2013) [2013]

JILL A. FORBESS, Clinical Professor of Pediatrics
B.S. (Oglethorpe 1984); M.D. (Medical College of Georgia 1991) [1994]

JAOQUELIN M. FORD, Assistant in Surgery
B.S. (South Florida 2010); Master of Physician Assistant Program (Eastern Virginia 2013) [2013]

LAURIE B. FORD, Assistant in Surgery
M.S.N. (Vanderbilt 2008) [2010]

NICOLAS P. FORGET, Assistant Professor of Emergency Medicine
B.Sc. (McGill [Canada] 1997); M.D. (Maryland, Baltimore 2004) [2010]

MARY C. FORRESTER, Assistant in Surgery
B.S. (Ipeombio 1996); M.S.N. (Vanderbilt 2003) [2011]

KYLE FORTMAN, Assistant in Medicine

KIMBERLY B. FORTNER, Assistant Clinical Professor of Obstetrics and Gynecology
B.S. (Tennessee 1997); M.D. (Emory 2001) [2011]

JACOB JOHN FOSTER, Research Instructor in Pharmacology
B.S. (Bucknell 2005); Ph.D. (Michigan 2010) [2015]

JOHN RANDOLPH FOSTER, Instructor in Clinical Anesthesiology
B.A. (Clemson 1997); M.D. (Medical University of South Carolina 2005) [2014]

JAY H. FOWKE, Associate Professor of Medicine; Associate Professor of Urologic Surgery
B.A. (Clark 1987); M.S. (Michigan 1990); M.P.H. (SUNY, Albany 1994); Ph.D. (Massachusetts, Boston 2000) [2001]

LESLIE C. FOWLER, Assistant in Anesthesiology
B.A. (Clemson 1997); M.Ed. (Southern Wesleyan 2006) [2014]

MICHAELE J. FOWLER, Associate Professor of Medicine

DENISE NICOLE FRAGA, Instructor in Emergency Medicine
B.S. (Notre Dame 2003); M.D. (Texas, Houston 2013); M.P.A. (Texas 2015) [2016]

DANIEL J. FRANCE, Research Associate Professor of Anesthesiology; Research Associate Professor of Biomedical Engineering
B.S., M.E. (Louisville 1990, 1991); Ph.D. (Vanderbilt 1997); M.P.H. (Utah 2000) [2005]

DAVID OLIVER FRANCIS, Assistant Professor of Otolaryngology
B.A. (Colgate 1999); M.S. (Dartmouth 2000); M.D. (Rochester 2004) [2010]

SHARRON H. FRANCIS, Adjunct Professor of Molecular Physiology and Biophysics
B.S. (Western Kentucky 1965); Ph.D. (Vanderbilt 1970) [1975]

BRIDGETTE BOGGESS FRANEY, Instructor in Clinical Medicine; Instructor in Pediatrics
B.S. (Kentucky, Lexington 1994); M.D. (Louisville 2003) [2016]

BEVERLY A. FRANK, Associate Clinical Professor of Pediatrics

CHARLES ROBERT FLYNN, Assistant Professor of Anesthesiology
B.S. (University of Georgia Center for Continuing Education 2001); M.D. (Medical College of Georgia 2005); M.B.A. (George Washington 2015) [2010]

JEFFREY L. FRANKLIN, Research Assistant Professor of Medicine; Research Assistant Professor of Cell and Developmental Biology

JERRY M. FRANKLIN, Assistant Professor of Clinical Medicine
B.S. (Tennessee, Martin 1973); M.D. (UT Health Science Center [Tennessee] 1977) [2012]
School of Medicine / Faculty

LOYD D. FRANKLIN, Clinical Professor of Pediatrics
B.S. (Birmingham-Southern 1976); M.D. (Alabama, Birmingham 1980) [2007]

MELANIE E. FRANKLIN, Assistant in Pediatrics
B.S.N. (Auburn 2005); M.S.N. (Alabama, Birmingham 2014) [2015]

JOHN J. FRANKS, Professor of Anesthesiology, Emeritus
B.A. M.D. (Colorado 1951, 1954) [1986]

LINDSEY D. FRANKS, Assistant in Medicine
B.S. (Vanderbilt 2008); M.S.W. (North Carolina 2013) [2016]

JOSEPH L. FREDI, Assistant Professor of Medicine
A.B. (Rutgers, Newark 1976); M.D. (UT Health Science Center [Tennessee] 1983) [2007]

BRADLEY W. FREEMAN, Associate Professor of Clinical Psychiatry and Behavioral Sciences
B.S. (Florida 1996); M.D. (South Florida 2003) [2009]

MICHAEL L. FREEMAN, Professor of Radiation Oncology; Professor of Radiology and Radiological Sciences; Professor of Cancer Biology

PHYLLIS FREEMAN, Adjunct Instructor in Pharmacology
B.S. (Fisk 1986); Ph.D. (Meharry Medical 1993) [2013]

FRANK R. FREEMON, Professor of Neurology, Emeritus

MATTHEW S. FREIBERG, Associate Professor of Medicine
B.S. (University of Washington 1991); M.D. (Oregon Health and Science 1996); M.Sc. (Boston University 2004) [2014]

KATHERINE L. FREUNDLICH, Assistant Professor of Clinical Pediatrics
B.A. (Johns Hopkins 2006); M.D. (Baylor 2010) [2016]

ROBERT EDWARD FREUNDLICH, Assistant Professor of Anesthesiology
B.A., M.S. (Johns Hopkins 2005, 2007); M.D. (Baylor 2010) [2016]

DAVID B. FRIEDMAN, Adjunct Research Associate Professor of Biochemistry
B.S. (California, Irvine 1987); Ph.D. (University of Washington 1993) [2001]

DEBRA L. FRIEDMAN, E. Bronson Ingram Chair in Pediatric Oncology; Associate Professor of Pediatrics; Director, Division of Pediatric Hematology/Oncology
B.A. (CUNY, Queens College 1975); M.S. (Pace 1981); M.D. (Robert Wood Johnson Medical, New Brunswick 1991); M.S. (Pennsylvania 1997) [2008]

G. CHRISTIAN FRIESINGER III, Assistant Professor of Clinical Medicine
B.S. (Davidson 1979); M.D. (UT Health Science Center [Tennessee] 1984) [2006]

K. FRANCES FRIGON, Clinical Instructor in Pediatrics
M.D. (UT Health Science Center [Tennessee] 1977); J.D. (Georgetown 1992) [2012]

BENJAMIN PAUL FRISCHHERTZ, Assistant Professor of Medicine
B.A. (Dartmouth 2002); M.D. (Louisiana State 2006) [2015]

MARK E. FRISSE, Accenture Chair in the Vanderbilt Center for Better Health; Professor of Biomedical Informatics
B.S. (Notre Dame 1989); Ph.D., M.D. (New Mexico 1997) [1992]

WILLIAM H. FRIST, Adjunct Professor of Cardiac Surgery

RYAN ANDREW FRITZ, Instructor in Emergency Medicine
B.S. (Virginia 2002); M.B.A., M.D. (Vanderbilt 2013, 2013) [2016]

MICHAEL T. FROEHLER, Assistant Professor of Neurology; Assistant Professor of Neurological Surgery; Assistant Professor of Radiology and Radiological Sciences

PATRICIA FROST, Assistant Professor of Clinical Pediatrics
B.S. (Duke 2007); M.D. (Virginia 2012) [2015]

CARY FU, Assistant Professor of Pediatrics
B.S., M.D. (Missouri 1998, 2002) [2012]

D. CATHERINE FUCHS, Professor of Psychiatry and Behavioral Sciences; Professor of Pediatrics

DOUGLAS H. FUCHS, Nicholas Hobbs Chair; Professor of Special Education; Professor of Pediatrics
B.A. (Johns Hopkins 1971); M.S. (Pennsylvania 1973); Ph.D. (Minnesota 1978) [1985]

HOWARD A. FUCHS, Professor of Medicine
B.S. (Colorado School of Mines 1977); M.D. (Vanderbilt 1981) [1986]

LYNN S. FUCHS, Nicholas Hobbs Chair; Professor of Special Education; Professor of Pediatrics

SABINE FUHRMANN, Associate Professor of Ophthalmology and Visual Sciences; Associate Professor of Cell and Developmental Biology

CLAYTON M. FULKS, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Georgia 2004); D.D.S. (Nova Southeastern 2009) [2012]

MELISSA E. FULLER, Assistant Clinical Professor of Pediatrics
B.S. (Texas A & M 2002); M.D. (Texas, Houston 2006) [2009]

MATTHEW ROBERT FUSCO, Assistant Professor of Neurological Surgery; Assistant Professor of Radiology and Radiological Sciences
B.A. (Virginia 2003); M.D. (Wake Forest 2007) [2015]

SHARIN M. GABL, Assistant in Medicine
Associate Diploma (Harper College - [Illinois] 1998); B.S. (Northern Illinois 2003) [2017]

CYNTHIA S. GADD, Professor of Biomedical Informatics
B.S. (North Carolina State 1976); M.B.A. (Winthrop 1979); Ph.D. (Pittsburgh 1995); M.S. (Duke 1998) [2005]

JENNIFER ANGELINE GADDY, Assistant Professor of Medicine
B.S. (Indiana University East 2003); Ph.D. (Miami [Ohio] 2010) [2013]

F. ANDREW GAFFNEY, Professor of Medicine
B.A. (California, Berkeley 1968); M.D. (New Mexico 1972) [1992]

DAVID GAILANI, Ernest W. Goodpasture Chair in Experimental Pathology
B.A. (Cornell 1980); M.D. (Illinois, College of Medicine, Chicago 1984) [1995]

JAMES V. GAINER III, Assistant Professor of Medicine
B.S. (Virginia 1986); M.D. (West Virginia 1990) [1996]

KENNETH J. GAINES, Professor of Clinical Neurology
B.A. (Emory 1969); M.D. (UT Health Science Center [Tennessee] 1972); M.B.A. (Memphis 1998) [2015]

LAWRENCE S. GAINES, Associate Professor of Psychiatry and Behavioral Sciences; Associate Professor of Medicine
B.A. (City College of New York 1965); M.A., Ph.D. (Maryland 1969, 1972) [1987]

MEGAN IMBODEN GALASKE, Clinical Instructor in Pediatrics
B.S. (Middle Tennessee State 2008); M.D. (UT Health Science Center [Tennessee] 2013) [2016]

CRISTI L. GALINDO, Research Assistant Professor of Medicine
B.S. (Texas, Arlington 2000); Ph.D. (Texas, Galveston 2005); M.B.A. (Texas, Brownsville 2009) [2014]

BETHANY GALLAGHER, Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.E. (Pennsylvania 2000); M.D. (Texas, San Antonio 2004) [2010]

MARTIN J. GALLAGHER, Associate Professor of Neurology
B.S. (Notre Dame 1989); Ph.D., M.D. (Washington University 1997, 1997) [2002]

AURELIO GALLI, Professor of Molecular Physiology and Biophysics; Professor of Psychiatry and Behavioral Sciences
B.A. (Pittsburgh 1995); M.S. (Duke 1998) [2005]

JAMES GALLIGAN, Research Assistant Professor of Biochemistry
B.Sc. (Michigan State 2006); Ph.D. (University of Colorado Anschutz Medical Campus [Colorado] 2012) [2016]

MELYSSA MIYAKO JOHNSON GALLOWAY, Assistant Professor of Pediatrics
B.S. (Birmingham-Southern 1992); M.D. (Vanderbilt 1996) [2007]
MARY KATHERINE GINGRASS, Assistant Clinical Professor of Plastic Surgery
B.S. (Boston College 1985); M.D. (Medical College of Wisconsin 1989) [2000]

TOCC D. GIORGIO, Professor of Biomedical Engineering; Professor of Chemical and Biomedical Engineering; Professor of Cancer Biology
B.S. (Lehigh 1982); Ph.D. (Rice 1986) [1987]

DARIO A. GIUSE, Associate Professor of Biomedical Informatics

NUNZIA B. GIUSE, Professor of Biomedical Informatics; Professor of Medicine; Director Eskind Biomedical Library
M.D. (Brescia [Italy] 1985); M.L.S. (Pittsburgh 1992) [1994]

FRANCES P. GLASCOE, Adjunct Professor of Pediatrics
B.S. (Georgia State 1976); M.S., Ed.S. (Peabody 1978, 1979); Ph.D. (Vanderbilt 1986) [1983]

MICHAEL E. GLASSCOCK III, Adjunct Professor of Otolaryngology
B.S. (Tennessee Technological 1955); M.D. (UT Health Science Center [Tennessee] 1958) [1978]

MARK DENNIS GLAZER, Assistant Professor of Medicine
B.A. (Emory 1975); M.D. (Louisville 1979) [2006]

KIMBERLY R. GLENN, Adjunct Assistant Professor of Health Policy
B.S. (James Madison [Virginia] 2005); M.P.H. (Georgia State 2007); Ph.D. (Vanderbilt 2014) [2016]

SUZANNE E. GLOVER, Assistant Clinical Professor of Pediatrics
B.A. (Rhodes College 2002); M.D. (Tennessee, Memphis 2007) [2012]

ALAIN P. GOBERT, Research Associate Professor of Medicine
A.B. (Brown 1985); M.D. (Vanderbilt 1990) [2001]

KATHERINE GOOTH, Assistant Professor of Medical Education and Biophysics
Ph.D., M.D. (Emory 1999) [2006]

LESLIE WYTTENBACH GOEBEL, Assistant in Medicine

MARK S. GOLDFARB, Assistant Clinical Professor of Medicine
B.S. (Michigan State 1975); M.D. (George Washington 1979) [1989]

MICHAEL GOLDFARB, H. Fort Flowers Chair in Mechanical Engineering; Professor of Mechanical Engineering; Professor of Electrical Engineering; Professor of Physical Medicine and Rehabilitation
B.S. (Arizona 1988); M.S., Ph.D. (Massachusetts Institute of Technology 1992, 1994) [1994]

FRED GOLDSNER, JR., Clinical Professor of Medicine, Emeritus
B.A., M.D. (Vanderbilt 1945, 1948) [1954]

JILLIAN G. GOLES, Assistant in Surgery
A.A. (2012); B.A. (Maryland, Baltimore 2014); M.S. (Shenandoah University 2016) [2017]

THOMAS A. GOLPER, Professor of Medicine
B.A. (Northwestern 1969); M.D. (Indiana, Bloomington 1973) [1999]

JOSE A. GOMEZ, Assistant Professor of Medicine
B.S. (Universidad Nacional de Colombia 1995); M.S. (Wisconsin, Milwaukee 2003); Ph.D. (Case Western Reserve 2009) [2015]

GILBERT GONZALES JR., Assistant Professor of Health Policy
B.A. (Baylor 2008); M.H.A. (North Texas Health Science Center 2010); Ph.D. (Minnesota 2015) [2015]

ADRIANA L. GONZALEZ, Assistant Clinical Professor of Pathology, Microbiology and Immunology
B.S., M.D. (Louisiana State 1990, 1994) [2000]

LAZARO GONZALEZ-CALVO, Adjunct Assistant Professor of Pediatrics
B.D. (Alcalá [Spain] 2006); B.S.N. (Salamanca [Spain] 2012) [2015]

RACHEL HUFFINES GOODE, Assistant Professor of Pediatrics
B.A. (Maryville 2005); M.D. (Tennessee, Memphis 2010) [2016]

LINDSEY MARTIN GOODMAN, Assistant Professor of Clinical Medicine

STACEY A. GOODMAN, Professor of Medicine; Director, Special Fellowship Program for Marrow Transplant
M.D. (New York 1987) [1993]

PAUL B. GOOGE, Clinical Professor of Pathology, Microbiology and Immunology
B.S. (Tennessee 1979); M.D. (UT Health Science Center [Tennessee] 1983) [1997]

DAVID LEE GORDEN, Professor of Surgery; Professor of Cancer Biology
A.B. (Brown 1985); M.D. (Vanderbilt 1990) [2001]

JOAN DEWITT GORDON, Assistant Professor of Clinical Medicine

JEFREY S. GORDON, Assistant Clinical Professor of Pediatrics
B.A., M.S. (Vanderbilt 1967, 1970); M.D. (Tulane 1972) [2012]

REYNA L. GORDON, Assistant Professor of Otolaryngology; Assistant Professor of Psychology
B.M. (Southern California 2001); M.S. (Université de Provence [France] 2004); Ph.D. (Florida Atlantic 2010) [2015]

SHARON M. GORLITZ, Assistant Clinical Professor of Psychiatry and Behavioral Sciences

JAMES C. GORE III, Associate Professor of Pediatrics
B.S., M.D. (Kentucky, Lexington 1995, 1999) [2007]

JANIE N. GORE, University Professor of Radiology and Radiological Sciences; Hertha Ramsey Cress Chair in Medicine; Professor of Biomedical Engineering; Professor of Physics and Astronomy; Professor of Molecular Physiology and Biophysics; Director, Institute of Imaging Science

KATHERINE GOTHAM, Assistant Professor of Psychiatry and Behavioral Sciences
B.A., M.D. (Yale 1984) [1988]
LAURIE A. HARRIS-FORD, Associate Clinical Professor of Pediatrics
B.S., M.D. (Alabama, Birmingham 1985, 1989) [2005]

DAVID G. HARRISON, Betty and Jack Bailey Chair in Cardiology; Professor of Medicine; Professor of Molecular Physiology and Biophysics; Professor of Pharmacology; Director, Division of Clinical Pharmacology
B.S. (Oklahoma State 1970); M.D. (Oklahoma 1974) [2011]

FIONA E. HARRISON, Assistant Professor of Medicine

JEREMY B. HARRIS, Assistant Clinical Professor of Pediatrics
B.S. (Freed-Hardeman 1990); M.D. (East Tennessee State 1996) [2007]

WALTER HARRISON, Clinical Instructor in Pediatrics
B.S. (Dartmouth 1966); M.D. (Hahnemann Medical 1970) [2008]

TINA V. HARTERT, Associate Dean for Physician-Researcher Training; Lulu H. Owen Chair in Medicine; Professor of Medicine; Director, Center for Asthma and Environmental Sciences Research

BRYAN I. HARTLEY, Instructor in Clinical Radiology and Radiological Sciences
B.S. (Georgia 2006); M.D. (Vanderbilt 2010) [2015]

KATHERINE GRAY HARTLEY, Assistant Professor of Radiology and Radiological Sciences; Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.A. (William and Mary 1999); M.D. (UT Health Science Center [Tennessee] 2003) [2010]

MARY KRISTEN HARTLEY, Assistant in Physical Medicine and Rehabilitation
B.S.N. (Middle Tennessee State State 2007); M.S.N. (Vanderbilt 2012) [2016]

LARA F. BRATCHER HARVEY, Assistant Professor of Obstetrics and Gynecology
B.A. (South Carolina 2004); M.P.H., M.D. (Vanderbilt 2010, 2010) [2014]

SARA M. HARVEY, Assistant Professor of Clinical Radiology and Radiological Sciences
B.S. (Memphis 1999); M.D. (UT Health Science Center [Tennessee] 2004) [2009]

STEPHEN T. HARVEY, Assistant Professor of Anesthesiology
B.S. (Milligan 1997) [2009]

LEAH H. HARWELL, Assistant in Anesthesiology
B.S.N. (Alabama, Birmingham 2008); M.S.N. (Alabama, Huntsville 2012) [2014]

DANA J. HASELMANN, Associate Clinical Professor of Pediatrics

FREDERICK R. HASELTON, Professor of Biomedical Engineering; Professor of Chemistry; Professor of Ophthalmology and Visual Sciences

JOHN H. HASH, Professor of Microbiology and Immunology, Emeritus
B.Sc. (Braunke 1948); M.S., Ph.D. (Virginia Polytechnic Institute 1955, 1957) [1964]

TRAVIS HASSELL, Instructor in Clinical Neurology
B.S. (Missouri 2002); Ph.D. (Purdue 2010); M.D. (Indiana, Indianapolis 2012) [2016]

ALYSSA H. HäSTY, Professor of Molecular Physiology and Biophysics
B.S. (Tennessee Technological 1994); Ph.D. (Vanderbilt 1998) [2002]

LEON DUPREE HATCH III, Assistant Professor of Pediatrics
B.S., M.D. (Florida 2004, 2004); M.P.H. (Vanderbilt 2015) [2011]

ANGELA L. HATCHETT, Assistant in Neurological Surgery
B.A. (Agnes Scott 1982); M.S.W. (Georgia 1984); M.S.N. (Vanderbilt 2000) [2003]

DANIEL A. HATF, Assistant Clinical Professor of Plastic Surgery

HELEN E. HATFIELD, Associate in Psychiatry and Behavioral Sciences
B.S.N. (Michigan State 1976); M.S.N. (Vanderbilt 2002) [2003]

JACOB WALTER HATHAWAY, Assistant Professor of Medicine

ANTONIS K. HATZOPoulos, Associate Professor of Medicine; Associate Professor of Cell and Developmental Biology

LEAH J. HAUER, Instructor in Otolaryngology
B.S. (California, Los Angeles 2006); M.D. (Northwestern 2011) [2016]

CHARLES HOWARD HAUSMAN, Assistant Professor of Clinical Hearing and Speech Sciences
B.S., (Cincinnati 1972); M.S. (Vanderbilt 1974) [2008]

JACEK J. HAWIGER, Distinguished Professor of Medicine; Louise B. McGavock Chair; Professor of Molecular Physiology and Biophysics

ALEXANDER THARRINGTON HAWKINS, Assistant Professor of Surgery
B.A. (Amherst 2000); M.D. (Virginia 2008); M.P.H. (Harvard 2013) [2016]

ANNE B. HAWKINS, Assistant Clinical Professor of Pediatrics
B.A. (Virginia 1987); M.D. (UT Health Science Center [Tennessee] 1992) [1997]

STACY L. HAWKINS, Assistant in Pediatrics
B.S.N. (Austin Peay State 2002); M.S.N. (Saint Louis 2005) [2008]

MELINDA J. HAWS, Assistant Clinical Professor of Plastic Surgery
B.A. (Indiana State 1991); M.D. (Southern Illinois, Springfield 1991) [2009]

BENJAMIN B. HAYES, Assistant Clinical Professor of Medicine
B.A. (Davidson 1994); Ph.D. (Medical College of Virginia 1999); M.D. (Boston University 2003) [2007]

DIANA D. HAYES, Assistant in Surgery
B.S.N. (Clemson 2007); M.S.N. (Vanderbilt 2014) [2014]

P. LYNN HAYES, Associate Professor of Hearing and Speech Sciences
B.A. (Lanor-Rhine 1980); M.S. (Wisconsin, Milwaukee 1985); Ed.D. (Pittsburgh 1991) [2007]

CHRISTINA HAYHURST, Assistant Professor of Anesthesiology
B.S. (2004); M.D. (Arizona 2009) [2015]

DAVID S. HAYNES, Professor of Otolaryngology; Professor of Neurological Surgery; Associate Professor of Hearing and Speech Sciences

STEPHEN ROBERT HAYS, Associate Professor of Anesthesiology; Associate Professor of Pediatrics
B.S., M.S. (Yale 1987, 1987); M.D. (Johns Hopkins 1991) [1999]

SIMON WILLIAM HAYWARD, Adjunct Professor of Urologic Surgery

MARY FRAN HAZINSKI Professor of Nursing; Assistant in Pediatrics
B.S.N. (Vanderbilt 1974); M.S.N. (Saint Louis 1975) [1990]

DAVID R. HEAD, Professor of Pathology, Microbiology and Immunology
B.A. (Rice 1964); M.D. (Texas, Dallas 1968) [2000]

JANE L. HEARNSBERGER, Assistant in Pediatrics
B.S., M.S.N. (Vanderbilt 2010, 2011) [2014]

JILL E. LAWTON HEAVRIN, Clinical Instructor in Emergency Medicine
B.S. (Vanderbilt 2002); M.D. (Miami 2006) [2009]

STEPHAN HECKERS, William P. and Henry B. Test Chair in Schizophrenia Research; Professor of Psychiatry and Behavioral Sciences; Professor of Radiology and Radiological Sciences; Professor of Psychology; Chair of the Department of Psychiatry and Behavioral Sciences

PETER HEDERA, Associate Professor of Neurology

WILLIAM JOHN HEERMAN, Assistant Professor of Pediatrics; Assistant Professor of Medicine
B.A. (Carleton College 2004); M.D., M.P.H. (Vanderbilt 2008, 2014) [2012]
JACQUES HEIBIG, Associate Professor of Clinical Medicine
MARK G. HEIDEL, Assistant Clinical Professor of Radiology and Radiological Sciences
B.S. (2003); M.D. (Meharry Medical 2009) [2014]
PAUL J. HEIL, Clinical Professor of Pediatrics
B.S. (Stanford 1984); M.D. (Vanderbilt 1988) [1992]
DOUGLAS C. HEIMBURGER, Professor of Medicine
B.S. (Harding 1973); M.D. (Vanderbilt 1978); M.S. (Alabama 1987) [2009]
J. HAROLD HELDERMAN, Professor of Medicine; Professor of Pathology, Microbiology and Immunology
B.A. (Rochester 1967); M.D. (SUNY, Downstate Medical Center 1971) [1989]
LAWRENCE TYSON HELLER, Assistant Professor of Clinical Medicine
B.A. (Rice 2007); M.D. (Texas, Houston 2012) [2015]
RICHARD M. HELLER, JR., Professor of Radiology and Radiological Sciences, Emeritus
B.A. (Carleton College 1959); M.D. (Northwestern 1963) [1975]
CARL G. HELLERQVIST, Professor of Biochemistry, Emeritus
SUSAN M. HELLERVIK, Assistant in Medicine; Adjunct Instructor in Nursing
B.S.N. (California State 1988); M.S.N. (Vanderbilt 2009) [2009]
CELESTE O. HEMINGWAY, Assistant Professor of Obstetrics and Gynecology
JONATHAN ALLEN HEMLER, Assistant Professor of Pediatrics
B.S. (William and Mary 2006); M.D. (Virginia 2011) [2016]
ANNA R. HEMNES, Associate Professor of Medicine
B.A. (Columbia 1995); M.D. (Johns Hopkins 1999) [2008]
LYNNETTE M. HENDERSON, UCEDD Associate Director of Community Services, Vanderbilt Kennedy Center; Research Assistant Professor of Pediatrics
B.S. (Freed-Hardeman 1981); M.Ed. (Bermont 1992); Ph.D. (Vanderbilt 2000) [2003]
RYAN M. HENDERSON, Assistant in Anesthesiology
ALEXANDRA WARREN HENDRICKS, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Western Kentucky 1996); D.M.D. (Tufts 2000) [2004]
CHASE DEAN HENDRICKSON, Assistant Professor of Medicine
B.S. (Bob Jones 2006); M.D. (Ohio State 2010); M.P.H. (Dartmouth 2016) [2016]
MEGHAN HENDRICKSON, Instructor in Clinical Obstetrics and Gynecology
B.S.N. (Wyoming 2002); M.S.N. (Vanderbilt 2005) [2012]
JOAN COLLIER HENNING, Assistant Professor of Emergency Medicine
B.S. (Mississippi State 1991); M.D. (Vanderbilt 1997) [2001]
GREER MAHONEY HENRY Associate in Orthopaedic Surgery and Rehabilitation
B.A. (Hamilton 2005); M.S. (Syracuse 2006); M.S. (Le Moyne 2010) [2015]
GREG L. HENRY, Visiting Professor of Emergency Medicine
ME LISSA C. HENRY, Assistant Professor of Hearing and Speech Sciences
B.A. (Western Michigan 1980); M.A. (Wayne State 1982) [2008]
TIMOTHY M. HENSCHEL, Assistant Clinical Professor of Pediatrics
B.S. (Wheaton 1991); M.D. (Medical College of Wisconsin 1995) [1999]
ROBIN HENSLEY, Assistant in Medicine
B.S.N. (Virginia 1979); M.S.N. (Middle Tennessee State 2007) [2009]
CHRISTOPHER P. HENSON, Assistant Professor of Anesthesiology
D.O. (Oklahoma State 2006) [2010]
ELIZABETH ADAIR HERBERT, Assistant in Otolaryngology
B.S. (Tennessee 2007); M.S.N. (Vanderbilt 2008) [2015]
JENNIFER L. HERINGTON, Research Assistant Professor of Pediatrics
B.S., Ph.D. (Southern Illinois 2004, 2009) [2015]
LISA D. HERMANN, Assistant Professor of Neurology
B.S. (Andrews 2002); M.D. (Virginia 2006) [2011]
CASILDA I. HERMO, Associate Clinical Professor of Pediatrics
ANTONIO HERNANDEZ, Associate Professor of Anesthesiology
B.S. (Texas, El Paso 1995); M.D. (Texas, Galveston 1999) [2013]
CIRA Q. HERNANDEZ, Research Assistant Professor of Neurology
MARTA HERNANZ-SCHULMAN, Professor of Radiology and Radiological Sciences; Professor of Pediatrics
ALISON HERONDON, Assistant Professor of Clinical Pediatrics
B.A. (Wooster 2003); M.P.H. (Colorado, Denver 2007); M.D. (Colorado 2011) [2015]
S. DUKE HERRELL III, Professor of Urologic Surgery; Professor of Mechanical Engineering; Professor of Biomedical Engineering
B.A. (Richmond 1986); M.D. (Virginia 1990) [2001]
CATHERINE GALLERANI HERRINGTON, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
HEATHER WALLER HERRMANN, Assistant in Medicine
B.S. (Vanderbilt 1995); M.S. (Pittsburgh 2000) [2016]
PAULA C. HERRMANN, Assistant Professor of Clinical Medicine
B.S. (South Carolina 1999); M.D. (Medical University of South Carolina 2003) [2007]
DOUGLAS L. HESTER, Associate Professor of Anesthesiology
A.B. (Georgia 1999); M.D. (Medical College of Georgia 2004) [2008]
ADAM HICKS, Senior Associate in Orthopaedic Surgery and Rehabilitation
B.Med.Sc. (Auburn 2002); D.P.M. [Des Moines University 2006] [2014]
CANDI G. HICKS, Assistant in Neurological Surgery
B.S. (Austin Peay State 2010); M.S. (Vanderbilt 2016) [2016]
GERALD B. HICKSON, Joseph C. Ross Chair in Medical Education and Administration; Professor of Medical Education and Administration; Professor of Pediatrics; Adjunct Professor of Nursing
B.S. (Georgia 1973); M.D. (Tulane 1978) [1982]
SCOTT W. HIEBERT, Hortense B. Ingram Chair in Cancer Research; Professor of Biochemistry; Associate Professor of Medicine
NICHOLAS S. D. HIGBY, Assistant Professor of Clinical Pediatrics
B.S., M.D. (Ohio State 2001, 2005) [2011]
KENT K. HIGDON, Assistant Professor of Plastic Surgery
B.S. (Alabama 1998); M.D. (Mississippi 2002) [2012]
LINDSAY M. HIGDON, Instructor in Neurology
B.A. (Delaware 2007); M.D. (Maryland, Baltimore 2011) [2016]
JAMES N. HIGGINBOTHAM, Research Instructor in Medicine
MICHAEL S. HIGGINS, Professor of Anesthesiology
B.S. (Lewis and Clark 1984); M.D., M.P.H. (Vanderbilt 1989, 1999) [1994]
R. KEVIN HIGH, Senior Associate in Emergency Medicine
B.S. (University of the State of New York–Regents College 1992); Ph.D. (Columbus State 2000); M.H.E. (Vanderbilt 2013) [2007]
GEORGE C. HILL, Vice-Chancellor for Equity, Diversity, and Inclusion; Distinguished Professor for Medicine, Health, and Society; Distinguished Professor of Molecular Physiology and Biophysics; Professor of Medical Education and Administration, Emeritus; Professor of Pathology, Microbiology and Immunology, Emeritus
B.A. (Rutgers, Camden 1961); M.S. (Howard 1963); Ph.D. (New York 1967) [2002]
MICHAEL F. HILL, Adjunct Associate Professor of Medicine
Tiffany P. Hill, Associate Clinical Professor of Pediatrics
B.A. (Boston University 1990); M.S., M.D. (Chicago 1994, 1994) [2000]
ANGELA MICHELLE HORTON, Assistant Professor of Medicine; Assistant Professor of Physical Medicine and Rehabilitation
B.S. (Fisk 1996); B.S. (UT Health Science Center [Tennessee] 1996, 2006); M.P.H. (Vanderbilt 2014) [2011]

SZATMAR HORVATH, Adjunct Assistant Professor of Psychiatry and Behavioral Sciences

HOMAIRA AYESHA HOSSAIN, Assistant Clinical Professor of Ophthalmology and Visual Sciences
B.S. (Vanderbilt 2005); M.D. (Case Western Reserve 2009) [2016]

JACOB L. HOUGHTON, Assistant Professor of Radiology and Radiological Sciences
B.A. (Carleton College 2007); Ph.D. (Michigan 2012) [2016]

ELLEN MARGARET HOUSE, Assistant Professor of Psychiatry and Behavioral Sciences
B.S., M.D. (Yale 2004, 2008) [2014]

JENNIFER HOUSE, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Delta State 2000); D.M.D. (Mississippi 2004) [2015]

AMY HOWARD, Assistant in Medicine
B.S.N. (Kentucky, Lexington 2006); M.S.N. (Vanderbilt 2009) [2017]

GWENDOLYN A. HOWARD, Instructor in Clinical Medicine
B.S. (Yale 1984); M.D. (Temple 1990) [2001]

JANE ELLEN HOWARD, Assistant Professor of Neurology
A.B. (Washington University 1978); M.D. (Florida 1982) [1991]

LEIGH M. HOWARD, Assistant Professor of Pediatrics
B.S. (Harding 2002); M.D. (Texas, Southwestern Medical 2006); M.P.H. (Vanderbilt 2013) [2011]

HENRY C. HOWERTON, Assistant Clinical Professor of Radiology and Radiological Sciences
M.D. (Cincinnati) [1978]

TAMARYA L. HOYT, Assistant Professor of Clinical Radiology and Radiological Sciences
B.S. (Indiana, Bloomington 1998); M.D. (Indiana, Indianapolis 2002) [2007]

CANDACE MARIE HRELEC, Instructor in Otolaryngology
B.S., M.D. (Ohio State 2007, 2011) [2016]

RYAN S. HSI, Assistant Professor of Urologic Surgery
B.S., B.A. (Stanford 2005, 2005); M.D. (Loma Linda 2009) [2016]

PATRICK J. HUKE, Adjunct Associate Professor of Medicine
A.B. (Washington University 2005); Ph.D. (Washington University 2010) [2016]

JONATHAN S. HUITINK, Assistant Clinical Professor of Pediatrics

ROBERT L. HUANG, Assistant Clinical Professor of Medicine
B.S., M.D. (Case Western Reserve 1998, 2002); M.P.H. (Vanderbilt 2007) [2011]

SHAN HUANG, Research Assistant Professor of Otolaryngology
M.D. (Fourth Military Medical [China] 1968); Ph.D. (Beijing Neurosurgical Institute [China] 1982) [1994]

THOMAS HUANG, Associate Professor of Clinical Pediatrics
B.S. (Yale 1989); M.D. (Uniformed Services 1994) [2005]

CHARLES LOUIS HUMBLETON II, Assistant Professor of Physical Medicine and Rehabilitation
B.S. (Vanderbilt 1983); M.D. (UT Health Science Center [Tennessee] 1987) [2012]

BILLY G. HUDSON, Elliott V. Newman Professor of Medicine; Professor of Medicine; Professor of Cell and Developmental Biology; Professor of Biochemistry; Professor of Pathology, Microbiology and Immunology
B.S. (Henderson State 1962); M.S. (Tennessee 1963); Ph.D. (Iowa 1966) [2002]

DAVID R. HUDSON, Associate Clinical Professor of Pediatrics
B.S. (Mississippi 1989); M.D. (Vanderbilt 1993) [1996]

JULI E. HUDSON, Associate Professor of Medical Education and Administration; Associate Professor of Clinical Anesthesiology
B.A. (Point Lorna Nazarene 1980); M.A., M.D. (Kansas 1987, 1990) [2002]

JOHN G. HUFF, Professor of Clinical Radiology and Radiological Sciences
B.S. (Georgia 1973); M.D. (Vanderbilt 1977) [2007]

KASEY A. HUFF-IGNATIN Assistant Professor of Clinical Pediatrics
B.S. (Central Arkansas 1993); M.D. (Ross University School of Medicine 1998) [2013]

ADAM HUGGINS, Assistant Professor of Clinical Obstetrics and Gynecology
B.S. (Wake Forest 2001); M.D. (Alabama, Birmingham 2005) [2013]

ALEXANDER K. HUGHES, Associate Professor of Clinical Anesthesiology
A.S. (Southern Maine Technical College 1990); B.A. (Southern Maine 1993); M.D. (Vermont 1997) [2002]

CHRISTOPHER G. HUGHES, Associate Professor of Anesthesiology
B.S., M.D. (Indiana, Bloomington 2001, 2005) [2010]

ELSABETH LEE HUGHES, Assistant Professor of Clinical Anesthesiology
B.S., M.D. (Florida 2002, 2006) [2011]

JULIE M. HUGHES, Assistant in Pediatrics
B.A., M.S.N. (Vanderbilt 2011, 2013) [2015]

LORENZO THOMAS HUGHES, Assistant Professor of Clinical Anesthesiology
B.S., M.D. (Indiana, Indianapolis 2000, 2006) [2017]

MARK D. HUGHES, Assistant Clinical Professor of Pediatrics
B.S. (Tennessee, Memphis 1997); M.D. (UT Health Science Center [Tennessee] 2001) [2006]

SEAN G. HUGHES, Assistant Professor of Clinical Medicine
B.S., M.D. (Florida 1995, 1998) [2012]

JACOB JOSEPH HUGHEY, Instructor in Biomedical Informatics
B.E. (Vanderbilt 2007); M.S., Ph.D. (Stanford 2009, 2014) [2016]

WON JAE HUH, Instructor in Clinical Pathology, Microbiology and Immunology
M.D. (Seoul National [Korea] 2002); B.S. (Korea National Open University 2006); Ph.D. (Washington University 2010) [2016]

JONATHAN S. HUIJTINK, Assistant Clinical Professor of Pediatrics
B.A. (Wheaton 1997); M.D. (Arkansas 2001) [2013]

SABINE S. HUKE, Adjunct Associate Professor of Medicine

TODD M. HULGAN, Associate Professor of Medicine
B.S. (South Alabama 1992); M.D. (Alabama, Birmingham 1996); M.P.H. (Vanderbilt 2003) [2002]

MARGARET A. HULL, Assistant Professor of Clinical Obstetrics and Gynecology
B.S.N. (Lipscomb 1993); M.S.N. (Vanderbilt 1994) [2011]

PAMELA C. HULL, Assistant Professor of Medicine

QUENTIN A. HUMBERD, Associate Clinical Professor of Pediatrics
B.S. (Tennessee 1975); M.D. (UT Health Science Center [Tennessee] 1978) [2005]

CANDACE HUMES, Assistant in Medicine
B.S. (Middle Tennessee State 1994); M.S. (Vanderbilt 2000) [2017]

DONNA S. HUMMELL, Professor of Clinical Pediatrics
A.B. (Rutgers, Camden 1976); M.D. (Johns Hopkins 1980) [1986]

ROBERT S. HUMPHREY, Clinical Professor of Pediatrics
B.S. (Arkansas 1981); M.D. (Johns Hopkins 1986) [2007]

RACHEL JANE HUNLEY, Assistant Professor of Pediatrics; Assistant Professor of Psychiatry and Behavioral Sciences; Research Assistant Professor of Psychology
M.S. (Memphis 1996); B.A. (Harding 1996); Ph.D. (Memphis 2003) [2010]

ADRIANA M. HUNG, Associate Professor of Medicine
M.D. (Universidad Central de Venezuela 1993); M.P.H. (Vanderbilt 2008) [2006]

REBECCA R. HUNG, Assistant Professor of Clinical Medicine

CHRISTINE W. HUNLEY, Associate Clinical Professor of Pediatrics
B.S. (Vanderbilt 1988); M.D. (UT Health Science Center [Tennessee] 1992) [2006]

TRACY E. HUNLEY, Associate Professor of Pediatrics
B.A. (Vanderbilt 1987); M.D. (UT Health Science Center [Tennessee] 1991) [1997]

HILLARY HUNT, Clinical Instructor in Pediatrics
B.A. (Mississippi State 1999) [2014]

ROSEMARY J. HUNTER, Assistant Professor of Pediatrics
B.S. (Emory 1989); M.D. (Duke 1994) [2001]

ANDREW M. HUSS, Associate Clinical Professor of Pediatrics
B.S. (Oklahoma State 1999); M.D. (Oklahoma 2006) [2007]
School of Medicine / Faculty

RACHELLE WHITNEY JOHNSON, Assistant Professor of Medicine; Assistant Professor of Cancer Biology
B.S. (Georgia 2007); Ph.D. (Vanderbilt 2011) [2016]

RAYMOND F. JOHNSON, Associate in Anesthesiology
B.S. (Belmont 1970) [1991]

ROBERT E. JOHNSON, Associate Professor of Biostatistics

TIMOTHY GRAHAM JOHNSON, Instructor in Clinical Surgery

WILLIAM STEPHEN JOHNSON, Associate Clinical Professor of Pediatrics
B.S. (Arlington 1978); M.D. (Ross 1983) [2004]

BENJAMIN J. JOHNSTON, Assistant Professor of Otolaryngology
B.S. (Vanderbilt 2003); M.D. (Louisville 2007) [2012]

DAVID G. JOHNSTON, Associate Clinical Professor of Pediatrics
B.S. (Duke 1995); M.D. (UT Health Science Center [Tennessee] 1999) [2005]

MARGREETE G. JOHNSTON, Clinical Professor of Pediatrics
B.S. (Peabody 1974); M.D. (Meharry Medical 1979); M.P.H. (Vanderbilt 2005) [1986]

MICHAEL N. JOHNSTON, Assistant Professor of Emergency Medicine; Assistant Professor of Pediatrics
B.S. (Birmingham-Southern 1990); M.D. (Alabama, Birmingham 1994) [2007]

PHILIP EARL JOHNSTON, Clinical Professor of Medicine
B.S. (Tennessee 1973); Pharm.D. (UT Health Science Center [Tennessee] 1974) [2008]

SUSAN E. JOHNSTON, Assistant Clinical Professor of Pediatrics
B.S. (Mississippi State 1992); M.D. (Mississippi, Jackson 1996) [2008]

BRITTANY JONES, Assistant Professor of Clinical Pediatrics
B.S. (Vanderbilt 2004); M.D. (East Tennessee State 2008) [2014]

CARISSA P. JONES, Instructor in Pathology, Microbiology and Immunology
B.S., M.S. (Binghamton 2005, 2007); D.V.M. (Oregon State 2014) [2016]

CARRIE K. JONES, Assistant Professor of Pharmacology
B.S., Ph.D. (Indiana, Fort Wayne 1992, 2001) [2007]

DEBORAH PRICE JONES, Professor of Pediatrics
M.D. (UT Health Science Center [Tennessee] 1983); B.S. (Memphis State 2006); M.S. (UT Health Science Center [Tennessee] 2006) [2010]

HOWARD W. JONES III, Professor of Obstetrics and Gynecology
B.A. (Amherst 1964); M.D. (Duke 1968) [1980]

IAN D. JONES, Associate Professor of Emergency Medicine; Assistant Professor of Biomedical Informatics
B.A. (Rhodes College 1986); M.D. (UT Health Science Center [Tennessee] 1993) [1998]

JILL L. JONES, Assistant Professor of Medicine
B.A. (Lawrence 1986); M.D. (Stanford 1991) [1997]

ROBIN M. JONES, Assistant Professor of Hearing and Speech Sciences
B.S. (Miami [Ohio] 2003); M.A. (Ohio State 2006); Ph.D. (Vanderbilt 2012) [2013]

TIMOTHY F. JONES, Clinical Professor of Health Policy
B.A. (Amherst 1982); M.D. (Stanford 1990) [1999]

GOWTHAM JONNA, Instructor in Ophthalmology and Visual Sciences
B.A. (Rutgers 2007); M.D. (Robert Wood Johnson Medical, New Brunswick 2011) [2015]

KAREN M. JOOS, Joseph N. and Barbara H. Ellis Family Chair in Ophthalmology; Professor of Ophthalmology and Visual Sciences; Professor of Biomedical Engineering

YVONNE A. JOOSTEN, Assistant Professor of Medical Education and Administration
B.A. (Prescott College 1975); M.P.H. (Tennessee 1979) [2009]

CHARLES A. JORDAN, Clinical Professor of Pediatrics
B.S. (Tennessee, Martin 1983); M.D. (UT Health Science Center [Tennessee] 1987) [1999]

LOI RI CHAFFIN JORDAN, Associate Professor of Pediatrics
B.S. (William and Mary 1994); M.D. (Oklahoma 1999); Ph.D. (Johns Hopkins 2009) [2011]

MARTIN I. JORDANOV, Assistant Professor of Emergency Medicine; Assistant Professor of Clinical Radiology and Radiological Sciences
B.S. (Tennessee 1997); M.D. (UT Health Science Center [Tennessee] 2001) [2006]

MARY ANN JORGENSEN, Assistant in Cardiac Surgery
A.S.N. (Western Kentucky 1983); B.S.N. (Belmont 2003); M.S.N. (Vanderbilt 2008) [2015]

ASHA JOSEPH, Assistant Professor of Clinical Pediatrics
B.S., (Tennessee, Chattanooga 1998); M.D. (Louisiana State, New Orleans 2003) [2009]

SEBASTIAN JOYCE, Professor of Pathology, Microbiology and Immunology
B.Sc. (Bangalore [India] 1979); M.Sc. (Saurashtra [India] 1981); Ph.D. (Medical College of Virginia 1988) [1999]

ADAM PABLO JUAREZ, Assistant in Pediatrics; Assistant in Psychiatry and Behavioral Sciences
B.S. (North Texas 2003); M.Ed. (Vanderbilt 2005) [2011]

RIDAS JUSKEVICIUS, Assistant Professor of Pathology, Microbiology and Immunology
M.D. (Vilnius State [Lithuania] 1993) [2015]

GARRETT A. KAAS, Research Assistant Professor of Pharmacology
B.S. (Wisconsin, Stevens Point 2003); Ph.D. (Iowa 2010) [2016]

JON H. KAAS, Gertrude Conaway Vanderbilt Distinguished Professor of Psychology; Professor of Psychology; Professor of Radiology and Radiological Sciences
B.A. (Northland 1959); Ph.D. (Duke 1965) [1972]

EDMOND K. KABAGAMBE, Associate Professor of Medicine; Associate Professor of Otolaryngology

LISA A. KACHNIC, Cornelius Vanderbilt Chair in Radiation Oncology; Professor of Radiation Oncology; Chair of the Department of Radiation Oncology
B.S. (Boston College 1987); M.D. (Tufts 1991) [2015]

BARBARA F. KACZMARSKA, Clinical Professor of Pediatrics
M.D. (Wrocław Medical [Poland] 1973) [2007]

MARION A. KAINER, Assistant Clinical Professor of Health Policy

ALLEN B. KAISER, Professor of Medicine; Associate Chief of Clinical Staff, VUMC

CLAYTON A. KAISER, Assistant Professor of Cardiac Surgery
B.S.E. (Duke 2002); M.D. (Vanderbilt 2008) [2014]

JANIS L. KAJARA-LIEHR, Assistant in Pediatrics
B.S., (Tennessee, Memphis 1986); M.S.N. (Vanderbilt 1998); D.N.P. (George Washington 2013) [1998]

SPYROS A. KALAMIS, Associate Professor of Medicine; Associate Professor of Pathology, Microbiology and Immunology
B.A. (Harvard 1983); M.D. (Connecticut 1987) [2002]

MARCIA L. KALISH, Research Professor of Medicine
B.S. (DePaul 1967); M.S. (Georgia State 1972); Ph.D. (Emory 1990) [2010]

J. JONAS KALNAS, Assistant Professor of Clinical Medicine

JAYAKUMAR R. KAMBAM, Adjunct Professor of Anesthesiology
M.D. (Andhra [India] 1972) [2005]

JEFFREY A. KAMMER, Associate Professor of Ophthalmology and Visual Sciences
B.A. (Pennsylvania 1992); M.D. (Vanderbilt 2008) [2015]

MARY LOUISE KANAGASUNDRAM, Assistant Professor of Medicine
B.S. (Stanford 1991) [2010]
AUDREY H. KANG, Associate Clinical Professor of Obstetrics and Gynecology
B.A., M.D. (Brown 1988, 1992) [2008]

HAKMOOK KANG, Assistant Professor of Biostatistics
B.S. (Minnesota 1998); M.S., M.S. (Rhode Island 2005, 2006); Ph.D. (Brown 2011) [2011]

JINGQIONG KANG, Assistant Professor of Neurology

DIVYA KANNAN, Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.A. (Sophia College 2002); M.A., Ph.D. (Memphis 2007, 2012) [2015]

PRINCE J. KANNANKERIL, Associate Professor of Pediatrics

C. CHRIS KAO, Research Associate Professor of Neurological Surgery
M.D., M.S. (Bethune University of Medical Science [China] 1980, 1983); Ph.D. (Virginia Commonwealth 1994) [2001]

HILLARY R. KAPLAN, Assistant Professor of Clinical Medicine
B.A. (Yale 1989); M.D. (Case Western Reserve 1993) [1999]

MARK RANDALL KAPLAN, Assistant Clinical Professor of Medicine
B.S.E. (Pennsylvania 1984); M.D. (Vanderbilt 1988) [2000]

AREL D. KAPPA, Assistant in Anesthesiology
M.S.N. (Vanderbilt 2013) [2012]

APRIL N. KAPU, Associate Professor of Nursing; Associate Professor of Anesthesiology
B.S. (Brigham Young 1992); M.S.N., D.N.P. (Vanderbilt 2005, 2013) [2010]

ERKAN KARAKAS, Assistant Professor of Molecular Physiology and Biophysics
B.S. (Middle East Technical [Turkey] 2002); Ph.D. (Stony Brook 2006) [2016]

JOHN JOSEPH KARIJOLICH, Assistant Professor of Pathology, Microbiology and Immunology
B.A. (Ripon 2005); Ph.D. (Rochester 2011) [2016]

KAVITA SINGH KARLEKAR, Assistant Clinical Professor of Pediatrics

MOHANA KARLEKAR, Assistant Professor of Medicine
B.S. (Cornell 1991); M.D. (SUNY, Stony Brook 1995) [2006]

ALI ILKAY KAYA, Research Assistant Professor of Pharmacology
M.S. (Brigham Young 2001); M.D. (Michigan 2007) [2011]

VIVIAN K. KAWAL, Research Assistant Professor of Medicine

ALI ILKAY KAYA, Research Assistant Professor of Pharmacology

RAYMOND W. KE, Assistant Clinical Professor of Obstetrics and Gynecology

JENNIFER A. KEARNEY, Adjunct Assistant Professor of Medicine
B.A. (Middlebury 1992); Ph.D. (Michigan 1997) [2007]

KATHLEEN R. KEARNEY-GAY, Assistant Professor of Clinical Medicine
B.S. (Kennesaw State 1981); M.D. (Medical College of Georgia 1990) [2006]

MARY E. KEEBLER, Assistant Professor of Medicine
B.S. (Florida State 1998); M.D. (Tulane 2002) [2010]

VICKI L. KEEDY, Associate Professor of Medicine
B.S. (Indiana, Bloomington 1997); M.D. (Cincinnati 2002); M.S.C.I. (Vanderbilt 2009) [2008]

CHRISTOPHER J. KEEFER, Assistant Professor of Pediatrics at Meharry Medical College; Associate Clinical Professor of Pediatrics
B.A. (University of the South 1992); M.D. (Vanderbilt 2001) [2008]

KIRK A. KEEGAN III, Assistant Professor of Urologic Surgery
B.A. (California, Berkeley 1992); M.S., M.D. (Georgetown 2000, 2004); M.P.H. (Vanderbilt 2013) [2010]

MARTY ANN KEENAN, Assistant Professor of Radiology and Radiological Sciences

DIANE S. KEENY, Adjunct Assistant Professor of Medicine
B.S. (Pennsylvania State 1978); M.S. (Iowa State 1983); Ph.D. (Johns Hopkins 1989) [1992]

JAMES E. KEEFE, Associate Clinical Professor of Pediatrics

LOI ANN F. KELBER, Assistant Professor of Ophthalmology and Visual Sciences
B.S. (Stetson 1998); O.D. (Illinois College of Optometry 2002) [2003]

WILLIAM J. KELLETT, Associate Professor of Clinical Obstetrics and Gynecology
B.S. (Wake Forest 1997); D.O. (Nova Southeastern 2006) [2011]

JENNIFER CAITLIN KELLEY, Assistant Professor of Pediatrics
B.A. [Miami (Ohio) 2005]; M.D. (Cincinnati 2009) [2015]

MARK C. KELLEY, Associate Professor of Surgery
B.S., M.D. (Florida 1986, 1989); M.Mgt. (Vanderbilt 2009) [2016]

MICHAEL B. KELLEY, Assistant Professor of Clinical Medicine
B.A. (Bradford 1994); M.D. (Vermont 2004) [2013]

RYAN A. KELLN, Instructor in Clinical Orthopaedic Surgery and Rehabilitation
B.S. (University of Washington 2005); D.O. (Pacific Northwest University of Health Sciences 2012) [2016]

ELLEN M. KELLY, Associate Professor of Hearing and Speech Sciences
B.A. (Saint Bonaventure 1981); M.S., Ph.D. (Syracuse 1984, 1989) [2007]

KEVIN J. KELLY, Associate Professor of Plastic Surgery
B.S. (Maryland 1972); D.D.S. (Columbia 1977); M.D. (SUNY, Downstate Medical Center 1982) [1989]

LYDIA KELLY, Instructor in Clinical Obstetrics and Gynecology
B.S. (Arizona 2001); B.S.N., M.S. (Columbia 2004, 2006) [2016]

SEAN G. KELLY, Assistant Professor of Medicine
B.S., M.D. (Michigan 2005, 2011) [2016]

PEGGY L. KENDALL, Associate Professor of Medicine; Associate Professor of Pathology, Microbiology and Immunology
B.S. (Texas 1982); M.D. (Texas, Southwestern Medical 1996) [2003]

ARION KENNEDY, Research Instructor in Molecular Physiology and Biophysics
B.S. (Florida Agricultural and Mechanical 2001); Ph.D. (North Carolina, Greensboro 2009) [2014]

ELIZABETH P. KENNEDY, Assistant in Pediatrics
M.S.N. (Vanderbilt 2004) [2010]
ASILYN M. KISER, Assistant in Pediatrics
B.S. (Meredith 2004); B.S. (High Point 2006); M.Ed. (North Carolina, Greensboro 2011) [2011]

CARRIE L. KITKO, Associate Professor of Pediatrics; Associate Professor of Medicine
B.S. (Denison 1995); M.D. (Ohio State 1999) [2015]

KOFFI MICHAEL KLA, Associate Professor of Clinical Anesthesiology
B.S. (Auburn 1998); M.D. (Maryland, Baltimore 2002) [2009]

JOHN W. KLEKAMP, Assistant Professor of Clinical Orthopaedic Surgery and Rehabilitation
B.S. (Miami 1986); M.D. (Mercer 1990) [2009]

LAWRENCE A. KLINSKY, Clinical Professor of Pediatrics
B.S. (Illinois, Champaign 1988); M.D. (Vanderbilt 1992) [1995]

TRENDAL B. KLINSKY, Assistant in Pediatrics
B.S.N. (Vanderbilt 1988); N.D. (Rush 1995) [2003]

KIMBERLY A. KLIPPENSTEIN, Clinical Instructor in Ophthalmology and Visual Sciences
B.S., M.D. (Vanderbilt 1986, 1990) [1994]

ELA W. KNAPIK, Associate Professor of Medicine; Associate Professor of Cell and Developmental Biology

LALEISHA M. KNAPPLER, Assistant Professor of Clinical Pediatrics
B.A. (Cornell 2003); M.D. (George Washington 2008) [2015]

HOLLY KNIERY, Assistant in Physical Medicine and Rehabilitation
B.S.N., M.S.N. (Belmont 2007, 2012) [2013]

ELIZABETH DUKE KRUEGER, Associate Clinical Professor of Pediatrics
B.A. (Ohio State 1989); N.D. (Rush 1995) [2003]

MALCOLM KRUGER, Assistant Professor of Anesthesiology
B.S. (Miami 1986); M.D. (Mercer 1990) [2009]

OLIVIA KUHN, Instructor in Medicine

SANFORD B. KRANTZ, Professor of Medicine, Emeritus

HEATHER KRETH, Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.A. (William and Mary 2004); Psy.D. (MSPP 2008) [2013]

SUSAN K. KROOP, Associate Professor of Medicine

MICHAEL J. KRZYZANIAK, Instructor in Surgery

JOHN G. KUCHTEY, Research Associate Professor of Ophthalmology and Visual Sciences

BRIAN G. KUEHNL, Associate Professor of Anesthesiology
B.A. (Urbana 1984); M.D. (University of Wisconsin, Madison 1989) [2007]

ELENA A. KOLOBOVA, Research Instructor in Surgery
M.S. (Moscow State [Russia] 1996); Ph.D. (Russian State Medical Academy, Moscow 2000) [2007]

PADIMINI KOMALAVILAS, Research Associate Professor of Surgery
B.S., M.S. (Madras [India] 1978, 1980); Ph.D. (Oklahoma State University 1989) [2008]

EUGENE L. KOMTSCHUK, Associate Professor of Pediatrics
B.A. (New York 1979); M.D. (Yeshiva 1984) [1986]

SEKHAR R. KOONJY, Research Professor of Radiation Oncology
B.S. (Andhra [India] 1982); M.Sc. (Mangalore [India] 1984); Ph.D. (Guiiba [India] 1989) [1990]

STEVEN KOOR, Assistant Professor of Otolaryngology
B.S. (Rockford 1983); M.S., Ph.D. (Purdue 1985, 1988) [1998]

CHRISTINE L. KORCADI, Professor of Pharmacology; Professor of Psychiatry and Behavioral Sciences
Ph.D. (Vienna [Austria] 1987) [2006]

JENNIFER KOONCE, Assistant in Medicine
B.S. (Union [Tennessee] 2003); M.S.N. (UT Health Science Center [Tennessee] 2009) [2015]

HEATHER C. KOONS, Assistant Professor of Neurology
B.A. (Virginia 2002); M.D. (Yale 2006) [2011]

BRENDA KOOTS, Clinical Instructor in Pediatrics
B.S. (Duke 1990); M.D. (Eastern Virginia 2012) [2015]

MARK J. KOURY, Professor of Medicine, Emeritus
B.A. (Rutgers 1969); M.D. (Virginia 1973) [1980]

ALEXANDRA E. KOVACH, Assistant Professor of Pathology, Microbiology and Immunology
B.A. (Columbia 2003); M.D. (Case Western Reserve 2013) [2015]

TATSUKI KOYAMA, Associate Professor of Biostatistics
B.A. (California, Berkeley 1998); M.A., Ph.D. (Pittsburgh 2000, 2003) [2003]

MARY ELIZABETH KOZIURA, Assistant in Pediatrics
B.A. (Purdue 2010); B.S.N., D.N.P. (Belmont 2011, 2016) [2016]

GUILLAUME KRAFT, Research Instructor in Molecular Physiology and Biophysics

MARK M. KRAKAUER, Associate Clinical Professor of Pediatrics
B.A. (Virginia 1999); M.D. (Eastern Virginia 2004) [2008]

SUNIL KRIPALANI, Associate Professor of Medicine
B.A. (Rice 1993); M.D. (Baylor 1997); M.Sc., (Emory 2001) [2007]

MARVIN W. KRONENBERG, Professor of Medicine, Professor of Radiology and Radiological Sciences
B.A. (Miami [Ohio] 1965); M.D. (Ohio State 1969) [2002]

STEPHANIE KRETZER, Assistant in Pediatrics
B.A. (SUNY, Binghamton ); M.Ed. (Vanderbilt ) [2016]

SAPNA P. KRIKALANI, Assistant Professor of Clinical Medicine
B.S., M.D. (Emory 1995, 1999) [2007]

SUNIL KRIKALANI, Associate Professor of Medicine
B.A. (George Washington 2008) [2015]

MARVIN W. KRONENBERG, Professor of Medicine, Professor of Radiology and Radiological Sciences
B.A. (Miami [Ohio] 1965); M.D. (Ohio State 1969) [2002]

MATTHEW J. KOLEK, Instructor in Medicine
B.S., M.D. (Utah 2004, 2008); M.S. (Vanderbilt 2015) [2016]

CAMELLIA R. KOLEYNI, Instructor in Clinical Medicine; Instructor in Clinical Pediatrics
B.S. (California, San Diego 1995); M.D. (UT Health Science Center [Tennessee] 2000) [2007]

MURALI KRISHNA KOLLI, Assistant Professor of Clinical Medicine
B.S. (Birmingham-Southern 1984); M.D. (Alabama, Birmingham 1989) [2009]

AISLENE L. KITKO, Associate Professor of Pediatrics; Associate Professor of Medicine
B.S. (Denison 1995); M.D. (Ohio State 1999) [2015]

KOFFI MICHAEL KLA, Associate Professor of Clinical Anesthesiology
B.S. (Auburn 1998); M.D. (Maryland, Baltimore 2002) [2009]

JOHN W. KLEKAMP, Assistant Professor of Clinical Orthopaedic Surgery and Rehabilitation
B.S. (Miami 1986); M.D. (Mercer 1990) [2009]

LAWRENCE A. KLINSKY, Clinical Professor of Pediatrics
B.S. (Illinois, Champaign 1988); M.D. (Vanderbilt 1992) [1995]

TRENDAL B. KLINSKY, Assistant in Pediatrics
B.S.N. (Vanderbilt 1988); N.D. (Rush 1995) [2003]

KIMBERLY A. KLIPPENSTEIN, Clinical Instructor in Ophthalmology and Visual Sciences
B.S., M.D. (Vanderbilt 1986, 1990) [1994]
FRANK WEN-YUNG LING, Clinical Professor of Obstetrics and Gynecology
A.B. (Wabash 1970); M.D. (Texas, Southwestern Medical 1974) [2004]

ANDREW J. LINK, Associate Professor of Pathology, Microbiology and Immunology; Associate Professor of Chemistry; Assistant Professor of Biochemistry

CATHERINE R. LINN, Assistant Professor of Clinical Medicine
B.A. (William and Mary 1994); M.D. (Vanderbilt 2002) [2005]

MACRAE F. LINTON, Dr. Stephen J. Schillig, Jr. and Mary Schillig Chair in Medicine; Professor of Medicine; Professor of Pharmacology
B.S. (Tulane 1978); M.D. (UT Health Science Center [Tennessee] 1985) [1993]

M. JANE LIPPS HAGAN, Assistant in Medicine
B.S.N., M.S.N. (Medical College of Virginia 1976, 1980); FNP, RN, MSN, ANP [2002]

NANCY B. LIPSITZ, Assistant Clinical Professor of Obstetrics and Gynecology
B.A. (Brown 1987); M.D. (Rochester 1993) [1998]

MATTHEW DAVID LIPTON, Assistant Professor of Emergency Medicine
B.S. (California, San Diego 2000); M.D. (Northwestern 2010) [2015]

LOREN P. LIPWORTH, Research Associate Professor of Medicine

MICHAEL R. LISKE, Clinical Professor of Pediatrics
B.S. (Oral Roberts 1984); M.D. (Michigan 1989) [2003]

ROLANDA LAMORA LISTER, Assistant Professor of Obstetrics and Gynecology
B.S. (Oakwood 2002); M.D. (Meharry Medical 2006) [2016]

JOSEPH A. LITTLE III, Assistant Clinical Professor of Pediatrics

DANAND LIU, Assistant Professor of Biostatistics
B.S. (Fudan [China] 2002); M.A. (Missouri 2005); Ph.D. (Michigan 2010) [2011]

QI LIU, Assistant Professor of Biomedical Informatics
B.S. (Tennessee Technological 1988); M.D. (Northwestern 2006) [2012]

JAMES E. LOYD, Rudy W. Jacobson Chair in Pulmonary Medicine
B.S., M.D. (West Virginia 1969, 1973) [1983]
NASREEN MALIK, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
M.B.B.S. (Jawaharlal Nehru [India] 1989) [2004]

HANNAH M. MALONEY, Assistant in Anesthesiology
B.S. (Cornell 1999); M.S.N. (Vanderbilt 2010) [2011]

BETH ANN MALOW Burry Chair in Cognitive Childhood Development; Professor of Neurology; Professor of Pediatrics
B.S., M.D. (Northwestern 1984, 1986); M.S. (Michigan 1997) [2003]

BRAD E. MALTZ, Assistant Professor of Clinical Medicine
B.S. (Florida Atlantic 1998); M.D. (Miami 2003) [2006]

RAVINDER REDDY MANDA, Assistant Professor of Clinical Medicine
M.D. (Kakatiya [India] 1990) [2009]

TIMOTHY C. MANGRUM, Associate Clinical Professor of Pediatrics
B.S. (Lipscomb 1990); M.D. (Tennessee 1994); M.D.FNP (1998)

H. CHARLES MANNING, Professor of Radiology and Radiological Sciences; Professor of Neurological Surgery; Professor of Biomedical Engineering; Ingram Associate Professor of Cancer Research; Associate Professor of Chemistry
B.Sc. (Tarleton State 2000); Ph.D. (Texas Tech University) 2004 [2008]

JOHN F. MANNING, Jr., Assistant Professor of Medical Education and Administration; Chief Operating Officer, Corporate Chief of Staff
B.S. (Worcester Polytechnic Institute 1980); Ph.D. (Notre Dame 1986); M.B.A. (Chicago 1997) [2004]

LINDA G. MANNING, Assistant Professor of Physical Medicine and Rehabilitation; Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.S., Ph.D. (Texas 1977, 1988) [1998]

KYLE MANNION, Assistant Professor of Otolaryngology
B.S. (North Carolina 1997); M.D. (Connecticut 2002) [2007]

TINA MANSHADI, Clinical Instructor in Pediatrics
B.S. (Texas 2008); M.D. (Baylor 2012) [2016]

GEORGIA STANDKE MANSOUR, Assistant in Radiation Oncology
B.S. (Texas A & M 2010); Master of Physician Assistant Program (Louisiana State, Shreveport 2013) [2016]

VARGHESE MANSOURIAN, Assistant Professor of Clinical Physical Medicine and Rehabilitation; Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.S., B.S. (Georgia State 1981, 1982); M.D. (Medical College of Georgia 1988) [2016]

KALPANA MANTHIRAM, Adjunct Assistant Professor of Pediatrics
B.S. (Texas 2005); M.D. (Texas, Southwestern Medical 2009); M.S.C.I. (Vanderbilt 2015) [2015]

MUDOLA VUHANDALI MANYANO, Adjunct Assistant Professor of Anesthesiology

KEVIN M. MAQUILING, Assistant Professor of Clinical Medicine
B.A. (Pennsylvania 1987); M.D. (Rush 1991) [2011]

TRACI MARCRUM, Assistant in Cardiac Surgery
B.S.N. (East Tennessee State 2001); M.S. (California, San Francisco 2011) [2016]

LARRY W. MARKHAM, Associate Professor of Pediatrics; Associate Professor of Medicine
B.S. (Belmont 1992); M.D. (East Tennessee State 1996); M.S. (Cincinnati 2006) [2007]

MELINDA H. MARKHAM, Associate Professor of Clinical Pediatrics
B.A. (Hendrix 1992); M.D. (Arkansas 1996) [2007]

TIFFANIE MARKUS, Research Assistant Professor of Health Policy

AIMEE W. MARLAR, Assistant in Anesthesiology
B.S. (Auburn 2000); M.S. (Trevecca Nazarene 2012) [2012]

LAWRENCE J. MARNETT, Dean of Basic Sciences; University Professor of Biochemistry and Chemistry; Mary Geddes Stahlman Chair in Cancer Research; Professor of Chemistry; Professor of Pharmacology
B.S. (Rockhurst 1969); Ph.D. (Duke 1973) [1989]

SAMUEL R. MARNEY, JR., Associate Professor of Medicine, Emeritus

RENE MAROIS, Professor of Psychology; Associate Professor of Radiology and Radiological Sciences; Chair of Psychology
B.S. (McGill [Canada] 1986); M.S. (Dalhouse [Canada] 1989); Ph.D. (Yale 1996) [1999]

KRISTIN EHST MARTEL, Assistant Clinical Professor of Pediatrics
B.S., M.D. (Vanderbilt 1999, 2003) [2007]

GLENNROY DEAN A. MARTIN, Adjunct Assistant Professor of Chemistry; Adjunct Assistant Professor of Pharmacology

MARIE H. MARTIN, Research Assistant Professor of Health Policy
B.A., M.Ed. (Vanderbilt 1995, 2006); Ph.D. (Tennessee State 2016) [2016]

PETER R. MARTIN, Professor of Psychiatry and Behavioral Sciences; Professor of Pharmacology

RAYMOND S. MARTIN III, Associate Clinical Professor of Surgery at St. Thomas Medical Center
B.A. (Vanderbilt 1972); M.D. (Johns Hopkins 1976) [1987]

RITA MANRY MARTIN, Assistant in Surgery
B.A. (University of the South 2003); M.S.N. (Vanderbilt 2009) [2011]

SARA F. MARTIN, Assistant Professor of Medicine

T. JOHN MARTIN, Adjunct Research Professor of Medicine

WILLIAM H. MARTIN, Professor of Medicine; Professor of Radiology and Radiological Sciences
B.S. (William and Mary 1971); M.D. (Medical University of South Carolina 1975) [1995]

WILLIAM P. MARTIN, Assistant in Pediatrics
B.S. (Saint Joseph’s, Philadelphia 2012); M.Ed. (Pittsburgh 2014) [2016]

J. ANDRES MARTINEZ, Assistant Professor of Clinical Pediatrics
B.S., M.D. (South Alabama 1995, 1999) [2003]

WILLIAM MARTINEZ, Assistant Professor of Medicine
A.B. (Dartmouth 1999); M.S. (California, Berkeley 2005); M.D. (California, San Francisco 2007) [2013]

JEFFREY E. MARTUS, Associate Professor of Orthopaedic Surgery and Rehabilitation

DEBBIE A. MASEMER, Assistant in Neurological Surgery
B.S.N. (Middle Tennessee State 2000); M.S.N. (Vanderbilt 2006) [2011]

EMILY F. MASON, Assistant Professor of Pathology, Microbiology and Immunology

FRANK M. MASON, Research Assistant Professor of Medicine
B.S. (Massachusetts Institute of Technology 2004); Ph.D. (Duke 2011) [2016]

LEILANI M. MASON, Assistant Professor of Clinical Obstetrics and Gynecology
B.S. (Alverno 1998); M.S.N. (Marquette 2001) [2009]

WENDI MASON, Assistant in Medicine
B.S.N. (Tennessee State 1996); M.S.N. (Vanderbilt 2003) [2013]

PIERRE P. MASSION, Cornelius Vanderbilt Chair in Medicine; Professor of Medicine; Professor of Cancer Biology
B.S., M.D. ( Université Catholique de Louvain [Belgium] 1983, 1987) [2001]

KELLEY J. MAST, Assistant Professor of Pathology, Microbiology and Immunology
B.S. (Kent State 2001); M.D. (Northeastern Ohio Universities 2005) [2014]

RYOTA MASUZAKI, Research Assistant Professor of Surgery

DORA SZTIPANOVITS MATHE, Assistant Professor of Clinical Ophthalmology and Visual Sciences
B.S. (Washington University 2002); M.S. (Vanderbilt 2004); O.D. (California, Berkeley 2008) [2011]
JAMES L. NASH, Associate Professor of Psychiatry, Emeritus
M.D. (Duke 1966) [1980]

ROBERTSON NASH, Assistant in Medicine
B.A. (Centre 1983); M.A. (Murray State 1986); M.B.A. (Rochester Institute of Technology 1993); M.S.N. (Vanderbilt 2007) [2008]

THOMAS C. NASLUND, Professor of Surgery

CHANDRAMOHAN NATARAJAN, Research Assistant Professor of Neurology

RAFAL R. NAZAREWICZ, Research Instructor in Medicine

KAITLIN CHRISTINA NEARY, Assistant in Anesthesiology
B.A. (Texas 2010); M.S.N. (Vanderbilt 2013) [2016]

WALLACE W. NEBLETT III, Professor of Pediatric Surgery; Professor of Pediatrics
B.A. (University of the South 1967); M.D. (Vanderbilt 1971) [1980]

SARAH J. NECHUTA, Adjunct Assistant Professor of Medicine
B.S. (Michigan State 2003); M.P.H. (Michigan 2005); Ph.D. (Michigan State 2009) [2012]

ANDREW CHARLES NECK, Assistant Professor of Emergency Medicine; Assistant Professor of Medicine; Assistant Professor of Pediatrics
B.S. (Stetson 1988); M.S. (Southern Methodist 1990); M.D. (Meharry Medical 2002) [2009]

JESSICA L. NEEDHAM, Assistant in Anesthesiology
B.B.A. (James Madison [Virginia] 1999); B.S.N. (Johns Hopkins 2012); M.S.N. (Vanderbilt 2014) [2014]

MAYA K. NEELEY, Assistant Professor of Pediatrics
B.S., M.D. (Miami 1999, 2003) [2010]

ROY C. NEELEY, Assistant Professor of Clinical Anesthesiology
B.S. (Miami 1999); M.D. (South Florida 2003) [2009]

M. DIANA NEELY, Research Associate Professor of Pediatrics
M.S. (Swiss Federal Institute of Technology 1984); Ph.D. (Brown 1990) [1999]

MONICA NEGRETE, Adjunct Assistant Professor of Medicine
M.D. (Pontificia Universidad Javeriana [Colombia] 1992); M.P.H. (Johns Hopkins 1995) [2018]

BRIAN NELMS, Adjunct Assistant Professor of Cell and Developmental Biology

GEORGE EDWARD NELSON, Assistant Professor of Medicine
A.B. (Princeton 2002); M.D. (Case Western Reserve 2006) [2014]

JILL R. NELSON, Assistant in Medicine
B.S. (Tennessee 2002); M.S.N. (Vanderbilt 2007) [2007]

RONALD A. NELSON, Assistant Clinical Professor of Medicine
B.S. (Stanford 1988); M.D. (Vanderbilt 1990); M.S. (Troy 1998) [2002]

SCOTT D. NELSON, Assistant professor of Biomedical Informatics
B.A., Pharm.D., M.S. (Utah 2010, 2013, 2014) [2016]

TAMASYN NELSON, Assistant Professor of Pediatrics

JONATHAN C. NESBITT, Professor of Thoracic Surgery; Interim Chair of the Department of Thoracic Surgery
B.A. (Virginia 1977); M.D. (Georgetown 1981) [2008]

REID M. NESS, Assistant Professor of Medicine

CYNTHIA L. NETHERTON, Assistant Professor of Clinical Obstetrics and Gynecology
B.S. (John Brown 1974); M.D. (Arkansas, Little Rock 1978) [2012]

JAMES L. NETTERVILLE, Mark C. Smith Chair in Head and Neck Surgery; Professor of Otolaryngology
B.S. (Lipscomb 1976); M.D. (UT Health Science Center [Tennessee] 1980) [1986]

ARIE L. NETTLES, Associate Professor of Clinical Pediatrics

GREGOR NEUERT, Assistant Professor of Molecular Physiology and Biophysics; Assistant Professor of Pharmacology; Assistant Professor of Biomedical Engineering
M.Eng. (Imenau University of Technology 2001); Ph.D. (Ludwig-Maxillians-Universitat [Germany] 2005) [2012]

LUCAS DANIEL NEUFELD, Assistant in Medicine
B.S.N. (2010); M.S.N. (Vanderbilt 2014) [2015]

JEFFREY L. NEUL, Adjunct Professor of Pediatrics

JAMIE R. NEUMAIER, Assistant in Pediatrics
A.S.N. (Aquinas College [Tennessee] 1996); B.S.N. (Middle Tennessee State 2007); M.S.N. (Alabama, Birmingham 2014) [2014]

MICHAEL N. NEUSS, Professor of Clinical Medicine; Chief Medical Officer, VICC Clinical Enterprise
B.S. (Michigan 1975); M.D. (Duke 1979) [2011]

MELINDA S. NEW, Associate Professor of Clinical Obstetrics and Gynecology
B.S. (Villanova 1989); M.D. (Pennsylvania 1993) [2005]

DAWN C. NEWCOMB, Assistant Professor of Medicine; Assistant Professor of Pathology, Microbiology and Immunology
B.S. (North Carolina State 2002); Ph.D. (Michigan 2007) [2010]

PAUL A. NEWHOUSE, Jim Turner Chair in Cognitive Disorders; Professor of Psychiatry and Behavioral Sciences; Professor of Pharmacology; Professor of Medicine
B.S. (Kansas State 1974); M.D. (Loyola, Chicago, 1977) [2011]

JOHN H. NEWMAN, Elsa S. Hanigan Chair in Pulmonary Medicine; Professor of Medicine
A.B. (Harvard 1967); M.D. (Columbia 1971) [1979]

LESLIE E. NEWMAN, Assistant in Pediatrics
A.A.S. (2005); B.S.N. (Memphis 2008); M.S.N. (Vanderbilt 2009) [2009]

H. CLAY NEWSOME III, Clinical Instructor in Obstetrics and Gynecology

ALLEN TIMOTHY NEWTON, Research Assistant Professor of Radiology and Radiological Sciences
B.S., M.S., Ph.D. (Vanderbilt 2003, 2005, 2009) [2016]

MARK W. NEWTON, Professor of Clinical Anesthesiology
B.S. (Houston Baptist 1983); M.D. (Texas, Galveston 1987) [2007]

J. MICHAEL NEWTON, Assistant Professor of Obstetrics and Gynecology

WILLIAM J.L. NEWTON, Assistant Clinical Professor of Physical Medicine and Rehabilitation
B.A. (Stony Brook 1993); M.S. (Illinois State 1995); D.O. (Midwestern University Chicago College of Osteopathic Medicine 2002) [2016]

THANH TAN NGUYEN, Assistant Professor of Clinical Anesthesiology
B.S., M.D. (Kansas 2001, 2005) [2010]

FRANCES JOHNSON NIARHOS, Assistant Professor of Clinical Psychiatry and Behavioral Sciences
B.A. (Southern Methodist 1986); M.S., Ph.D. (Miami 1991, 1994) [2005]

JAMES H. NICHOLS, Professor of Pathology, Microbiology and Immunology

AMY G. NICHOLSON, Assistant in Pediatrics; Assistant in Psychiatry and Behavioral Sciences

GEORGE T. NICHOLSON, Assistant Professor of Pediatrics
B.A. (College of the Holy Cross 2004); M.D. (Loyola, Chicago 2008) [2015]

MARBETH R. NICHOLSON, Assistant Professor of Pediatrics
B.S. (Richmond 2004); M.D. (Pennsylvania State 2008); M.P.H. (Vanderbilt 2013) [2014]

ANDREW S. NICKELS, Assistant Professor of Medicine; Assistant Professor of Pediatrics
B.A. (Notre Dame 2005); M.D. (Tennessee, Memphis 2009) [2015]
AMANDA C. PELTIER, Associate Professor of Neurology
B.A. (Denison 1994); M.D. (Ohio State 1998); M.S. (Michigan 2006) [2006]

JULIE S. PENDERGAST, Adjunct Assistant Professor of Medicine
B.S., M.S. (Illinois, Champaign 1999, 2001); Ph.D. (Miami 2007) [2007]

JENNIFER L. PENDERGRAST, Assistant in Medicine
B.S.N. (Austin Peay State 2008); M.S.N. (Vanderbilt 2011) [2012]

DUNFA PENG, Research Instructor in Surgery
M.D. (Wannan Medical [China] 1987); M.S. (Zhejiang [China] 1992); Ph.D. (Shiga University for Medical Science [Japan] 2003) [2009]

DUNGENG PENG, Research Instructor in Medicine

EDWARD B. PENN, JR., Assistant Professor of Otolaryngology

JOHN S. PENN, Associate Dean for Faculty Affairs; Phyllis G. and William B. Snyder, MD Endowed Chair in Otolaryngology and Visual Sciences; Professor of Otolaryngology and Visual Sciences; Professor of Medical Education and Administration (VUMC); Professor of the Department of Molecular Physiology and Biophysics; Professor of Cell and Developmental Biology
B.A. (University of the South 1978); M.S. (West Florida 1981); Ph.D. (Florida State 1984) [1998]

JACQUELYN SUE PENNINGS, Research Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.A. (Belmont 2001); M.S., Ph.D. (Texas Christian 2005, 2009) [2017]

DAVID F. PENSON, Paul V. Hamilton, M.D. and Virginia E. Howd Chair in Urologic Oncology; Professor of Urologic Surgery; Professor of Medicine; Professor of Health Policy; Chair of the Department of Urologic Surgery; Director, Center for Surgical Quality and Outcomes Research
B.A. (Pennsylvania 1987); M.D. (Boston University 1991); M.P.H. (Yale 2001); M.Mgt. (Vanderbilt 2014) [2009]

EDWARD C. PERDUE, Assistant Clinical Professor of Oral and Maxillofacial Surgery

JASON K. PEREIRA, Assistant Professor of Medicine
B.S. (Tennessee 2000); M.D. (Morehouse 2007) [2012]

MATTHEW L. PERKINS, Associate Clinical Professor of Pediatrics
B.S. (Western Kentucky 1990); M.D. (Louisville 1994) [1997]

JONATHAN B. PERLIN, Clinical Professor of Medicine
B.S. (Belmont 2001); M.S., Ph.D. (Texas Christian 2005, 2009) [2017]

ANNE P. PERRY, Assistant Professor of Clinical Pediatrics
B.S. (Texas 1994); M.D. (Texas, San Antonio 1999) [2011]

ROMAN E. PERRI, Assistant Professor of Medicine
B.S. (Indiana University 1995, 1999) [2006]

DANIEL S. PERRI, Assistant Professor of Medicine
B.S. (Wannan Medical [China] 1987); M.S. (Zhejiang [China] 1992); Ph.D. (Shiga University for Medical Science [Japan] 2003) [2009]

SAMUEL J. PERRY, Instructor in Clinical Medicine; Instructor in Clinical Pediatrics
B.S., M.D. (Wake Forest 1979, 1989) [2017]

ANNA K. PERS, Assistant Professor of Medicine
B.A. (Macalester 2000); M.D. (Washington University 2005) [2010]

SARureka UPPEL Peters, Assistant Professor of Pediatrics; Assistant Professor of Psychiatry and Behavioral Sciences
B.A. (Austin College 1993); M.A., Ph.D. (Texas 1997, 2000) [2009]

TODD ERIC PETERS, Assistant Professor of Psychiatry and Behavioral Sciences
B.A. (McDaniel 2002); M.D. (Pennsylvania State 2006) [2011]
DEREK A. RIEBAU, Associate Professor of Neurology  
B.S. (Wisconsin, Eau Claire 1991); M.D. (Wisconsin 2001) [2005]  
DIANA C. RIERA, Assistant in Neurological Surgery  
B.S. (Brown 1997); M.D. (New York Medical 2002) [2011]  
W. RUSSELL RIES, Carol and John Odess Chair in Facial, Plastic and Reconstructive Surgery; Professor of Otolaryngology  
B.S. (Southwestern at Memphis 1975); M.D. (UT Health Science Center [Tennessee] 1978) [1988]  
MATTHIAS LUDWIG RIESS, Professor of Anesthesiology; Professor of Pharmacology  
M.D. (Albert Ludwigs University of Freiburg [Germany] 1992); Ph.D. (Medical College of Wisconsin 2004) [2014]  
JEFFREY RIGGS, Assistant Clinical Professor of Oral and Maxillofacial Surgery  
B.S. (Indiana, Indianapolis 1999); D.D.S. (Indiana-Purdue, Indianapolis 2006); M.D. (Texas, Houston 2010) [2014]  
JONATHAN S. RIGGS, Associate in Orthopaedic Surgery and Rehabilitation  
B.S., M.S. (Duquesne 2006, 2009) [2015]  
LINDSAY B. RILEY, Assistant in Pediatrics  
B.S.N. (Medical College of Georgia 2009); M.S.N. (Vanderbilt 2014) [2014]  
WAYNE JOSEPH RILEY, Clinical Professor of Medicine; Adjunct Professor of Health Policy  
B.A. (Yale 1981); M.P.H. (Tulane 1988); M.D. (Morehouse 1993); M.B.A. (Rice 2002) [2007]  
SHERYL L. RIMRODT, Assistant Professor of Pediatrics  
B.S. (Stanford 1986); M.D. (California, San Diego 1990); M.Ed. (Vanderbilt 2014) [2009]  
HEATHER ROSE MEAD RIORDAN, Assistant Professor of Pediatrics; Assistant Professor of Neurology  
B.A. (Brigham Young 2004); M.D. (Rochester 2010) [2016]  
RHONDA RIPPY, Assistant in Anesthesiology  
B.S.N. (Memphis 1992); M.S.N. (Belmont 1998) [2014]  
CHAD RYAN RITCH, Adjunct Instructor in Urologic Surgery  
ALEJANDRO CAMPOS RIVAS, Associate Professor of Otolaryngology  
M.D. (University of Guadalajara [Mexico] 2000) [2011]  
CARMELO J. RIZZO, Professor of Chemistry; Professor of Biochemistry; Vice Chair of Chemistry  
B.S. (Temple 1984); Ph.D. (Pennsylvania 1990) [1992]  
ALAN E. ROACH, Clinical Instructor in Pediatrics  
B.S. (Denison 2004); M.D. (Cincinnati 2008) [2011]  
MICHELLE KRYSTINA ROACH, Assistant Professor of Clinical Obstetrics and Gynecology  
B.S. (South Alabama 2007); M.D. (Alabama, Birmingham 2012) [2016]  
TIMOTHY R. ROADS, Associate Clinical Professor of Pediatrics  
M.D. (Indiana, Indianapolis 1978) [2005]  
HOWARD B. ROBBACK, Professor of Psychiatry, Emeritus  
B.A. (Case Western Reserve 1962); M.S. (Ohio 1964); Ph.D. (York [Canada] 1970) [1972]  
CHRISTOPHER W. ROBB, Assistant Clinical Professor of Medicine  
B.S. (Baylor 1994); Ph.D. (Texas, Galveston 1999); M.D. (Texas Tech University 2003) [2007]  
IVAN M. ROBBINS, Professor of Medicine  
B.A. (Brown 1981); M.D. (Case Western Reserve 1991) [1997]  
JASON B. ROBBINS, Assistant Clinical Professor of Medicine  
B.S., M.D. (Vanderbilt 1995, 1999) [2006]  
MARK A. ROBBINS, Assistant Professor of Medicine  
B.S. (Arkansas State 1987); M.D. (Mississippi, Jackson 1993) [2006]  
SAMUEL OWEN ROBBINS, Assistant in Medicine  
B.A. (University of the South 1998); M.T.S., M.S.N. (Vanderbilt 2001, 2007) [2015]  
SHELELY TORRES ROBERT, Assistant in Surgery; Lecturer in Nursing  
B.S.N. (Middle Tennessee State 2007); M.S.N. (Vanderbilt 2010) [2011]  
CATHERINE S. ROBERTS, Assistant in Neurological Surgery  
B.S.N. (Columbia 2011); M.S.N. (Vanderbilt 2015) [2015]  
L. JACKSON ROBERTS, William Stokes Chair in Experimental Therapeutics; Professor of Pharmacology; Professor of Medicine  
B.A. (Cornell College 1965); M.D. (Iowa 1969) [1977]  
RICHARD ALLEN ROBERTS, Assistant Professor of Clinical Hearing and Speech Sciences  
B.S., M.S., Ph.D. (South Alabama 1992, 1994, 1997) [2017]  
AMY C. ROBERTSON, Assistant Professor of Anesthesiology  
B.S. (Marquette 1993); M.D. (Wisconsin 2002); M.Mgt. (Vanderbilt 2010) [2006]  
AMY K. ROBERTSON, Assistant in Pediatrics  
B.S. (Western Kentucky 1995); B.S.N., M.S.N. (Belmont 2007, 2013) [2014]  
DAVID ROBERTSON, Elton Yates Professorship in Autonomic Disorders; Professor of Medicine; Professor of Neurology; Professor of Pharmacology  
MARSHA ROBERTSON, Assistant Clinical Professor of Psychiatry and Behavioral Sciences  
B.S. (Middle Tennessee State 1976); M.S. (Tennessee 1987) [2008]  
ROSE MARIE ROBERTSON, Adjunct Professor of Medicine  
B.A. (Manhattanville 1966); M.D. (Harvard Medical 1970) [1975]  
ALTHEA A. ROBINSON, Assistant Professor of Neurology  
B.S. (Florida Atlantic 1999); M.D. (Morehouse 2004) [2009]  
MARILYN A. ROBINSON, Assistant Professor of Clinical Pediatrics  
B.S. (Jackson State College 1974); M.D. (Mississippi, Jackson 1979) [2012]  
PATRICIA F. ROBINSON, Clinical Professor of Pediatrics  
B.A. (Wake Forest 1975); M.D. (Pennsylvania State 1979) [1982]  
JENNIFER AYESHA ROBLES, Instructor in Clinical Urologic Surgery  
B.A. (Rice 2006); M.D. (Case Western Reserve 2011) [2016]  
VITO K. ROCCO, Assistant Clinical Professor of Medicine  
B.S. (St. John’s 1977); M.D. (Southern California 1981) [1988]  
DAN M. RODEN, William Stokes Chair in Experimental Therapeutics; Professor of Medicine; Professor of Biomedical Informatics; Professor of Pharmacology  
JACQUELINE L. RODIER, Clinical Instructor in Obstetrics and Gynecology  
A.B. (Cornell 1976); M.D. (Vanderbilt 1980) [1984]  
VERITY LEVITT RODRIGUES, Instructor in Pediatrics  
B.A. (Kenyon 2001); M.S., Ph.D. (Oregon 2007, 2009) [2016]  
ALICE L. RODRIGUEZ, Instructor in Pharmacology  
B.S., Ph.D. (Illinois, Champaign 1996, 2002) [2007]  
ANNA WANG ROE, Adjunct Professor of Radiology and Radiological Sciences  
B.A. (Harvard 1984); Ph.D. (Massachusetts Institute of Technology 1991) [2003]  
AMY ROEDER, Assistant Clinical Professor of Oral and Maxillofacial Surgery  
B.A. (Baylor 1994); D.D.S. (Medical College of Virginia 2001) [2016]  
BAXTER P. ROGERS, Research Associate Professor of Radiology and Radiological Sciences; Research Associate Professor of Psychiatry and Behavioral Sciences; Research Associate Professor of Biomedical Engineering  
B.S. (Furman 1998); M.S., Ph.D. (Wisconsin 2001, 2004) [2006]  
BRIANA KAY ROGERS, Assistant in Anesthesiology  
B.S.N. (Tennessee Tech 2008); M.S.N. (Vanderbilt 2012) [2012]  
JOHN P. ROHDE, Associate Professor of Emergency Medicine  
B.A. (Harvard-Simmons 1994); M.D. (Texas, San Antonio 1999) [2005]  
SARAH L. ROHDE, Associate Professor of Otolaryngology  
JENNIFER C. ROHRBOUGH, Research Assistant Professor of Pediatrics  
B.S., Ph.D. (California, Los Angeles 1985, 1992) [2016]  
ANTONIS ROKAS, Professor of Biological Sciences; Cornelius Vanderbilt Chair in Biological Sciences; Associate Professor of Biomedical Informatics  
JOSEPH T. E. ROLAND, Research Assistant Professor of Surgery  
LORI ANN ROLANDO, Assistant Professor of Clinical Medicine  
B.S. (Illinois, Champaign 1993); M.D. (Southern Illinois, Springfield 1997) [2008]
BANTAYEHU SILESHI, Assistant Professor of Anesthesiology
B.S. (California, San Diego 2003); M.D. (Johns Hopkins 2004) [2014]

ALLEN K. SILLS, JR., Professor of Neurological Surgery
B.S. (Mississippi State 1986); M.D. (Johns Hopkins 1990) [2009]

WILSON PEREIRA SILVA, Adjunct Assistant Professor

ANTONIA SILVA-HALE, Assistant Professor of Clinical Medicine

HEIDI J. SILVER, Research Associate Professor of Medicine
B.S. (Massachusetts 1977); M.S., Ph.D. (Florida International 1991, 2001) [2003]

NABIL SIMAAN, Associate Professor of Mechanical Engineering; Associate Professor of Computer Science; Associate Professor of Otolaryngology

KATHLEEN SIMCOE, Assistant in Pediatrics
B.S., M.Ed. (Vanderbilt 2007, 2008) [2016]

RICHARD SIMERLY, Professor of Molecular Physiology and Biophysics
A.B. (California, Berkeley 1976); Ph.D. (California, Los Angeles 1984) [2016]

GALILEO ALOHA-OLA SIMMONS, Assistant in Anesthesiology
B.S.N. (Murray State 2012); M.S.N. (Vanderbilt 2016) [2017]

HENRY C. SIMMONS III, Clinical Professor of Oral and Maxillofacial Surgery (Orthodontics)
B.S. (Tennessee Technological 1971); D.D.S. [UT Health Science Center [Tennessee] 1977] [1993]

JILL H. SIMMONS, Associate Professor of Pediatrics
B.A. (Tennessee 1995); M.D. (UT Health Science Center [Tennessee] 2000) [2006]

MEGAN P. SIMMONS, Assistant Professor of Nursing; Assistant in Psychiatry and Behavioral Sciences

SANDEE S. SIMMONS, Associate Professor of Medicine

LUCIEN C. SIMPSON, Clinical Instructor in Medicine
B.A. (Lipscomb 1969); M.D. (Washington University 1973) [1978]

TERESA L. SIMPSON, Assistant in Medicine
A.D. (Aquinas College [Tennessee] 1993); M.S.N. (Vanderbilt 2009) [2010]

ANGELA F. SIMS EVANS, Instructor in Clinical Obstetrics and Gynecology
B.S. (Tennessee State 1993); M.S.N. (Tennessee 1996) [2010]

ROBERT J. SLAUGHTER, Assistant Professor of Biostatistics
B.A. (Princeton 1973); J.D., LL.M. (Virginia 1977, 1979) [2008]

DAVID ALAN SLOSKY, Assistant Professor of Medicine; Assistant Professor of Emergency Medicine
B.S. (Tulane 1972); M.D. (Colorado 1976) [2005]

BONNIE S. SLOVIS, Professor of Medicine, Emerita
A.B. (Westminster [Georgia] 1966); M.Ed. (Georgia State 1975); M.S. (Georgia Institute of Technology 1981); M.D. (Emory 1990) [1996]

COREY M. SLOVIS, Professor of Emergency Medicine; Professor of Medicine; Chair of the Department of Emergency Medicine
B.S. (Hobart and William Smith 1971); M.D. (New Jersey Medical 1975) [1992]

ASHLEY F. SMALL, Associate in Orthopaedic Surgery and Rehabilitation
B.S.N. (Bellarmine 2002) [2011]

WALTER E. SMALLLEY, JR., Professor of Medicine; Professor of Surgery; Associate Professor of Health Policy
B.S. (Emory and Henry 1981); M.D. (Vanderbilt 1985); M.P.H. (Vanderbilt 1997) [1991]

GEOFFREY H. SMALLWOOD, Clinical Instructor in Obstetrics and Gynecology
B.A. (Vanderbilt 1980); M.D. (Tulane 1985) [1993]

CHRISTOPHER R. SMELTZER, Clinical Professor of Pediatrics
B.A. (Baylor 1989); M.D. (Vanderbilt 1993) [1997]

ALLISON L. SMITH, Assistant Professor of Medicine
B.S. (Washington and Lee 2001); M.D. (Louisville 2005) [2010]

ANDREW HAROLD SMITH, Associate Professor of Anesthesiology; Associate Professor of Clinical Pediatrics

ANTHONY L. SMITH, Clinical Professor of Pediatrics
B.A. (Tennessee 1982); M.D. (UT Health Science Center [Tennessee] 1986) [2006]

BRADLEY E. SMITH, Professor of Anesthesiology, Emeritus
B.S. (Oklahoma 1954); M.D. (Oklahoma 1957) [1969]

CARELLE SMITH, Assistant Professor of Clinical Pediatrics
B.S. (Hampton 2003); M.D. (East Tennessee State 2007) [2011]
CLAY B. SMITH, Associate Professor of Emergency Medicine; Associate Professor of Pediatrics; Assistant Professor of Medicine
B.S. (Union [Tennessee] 1955); M.D. (UT Health Science Center [Tennessee] 1999) [2004]

COLTEN SMITH, Assistant in Emergency Medicine
B.S. (Grand Canyon 2012); Master of Physician Assistant Program (Midwestern University 2015) [2016]

D. MICHELLE SMITH, Assistant in Neurology
B.S. (Union [Tennessee] 1993); M.S.N. (Vanderbilt 1999) [2015]

DAVID SAMUEL SMITH, Research Assistant Professor of Radiology and Radiological Sciences
B.S. (Texas 2001); A.M. (Harvard 2002); Ph.D. (Texas 2006) [2014]

DEREK K. SMITH, Instructor in Biostatistics; Research Instructor in Oral and Maxillofacial Surgery
B.A. (DePauw 2004); D.D.S. (Indiana, Bloomington 2008); Ph.D. (Vanderbilt 2017) [2013]

GARY T. SMITH, Professor of Clinical Radiology and Radiological Sciences
B.S. (Tennessee 1978); M.D. (Texas, Southwestern Medical 1983) [2009]

HEIDI A. B. SMITH, Assistant Professor of Anesthesiology
B.S. (Nebraska 1995); M.D. (South Dakota 1999); M.S.C.I. (Vanderbilt 2005) [2014]

JARROD A. SMITH, Assistant Professor of Biochemistry
B.Sc. (California, Santa Barbara 1992); Ph.D. (Scripps Research Institute 1998) [1999]

JOSEPH A. SMITH, JR., William L. Bray Chair in Urology; Professor of Urologic Surgery
B.A. (Tennessee 1971); M.D. (UT Health Science Center [Tennessee] 1974) [1991]

JEFFREY R. SMITH, Associate Professor of Medicine; Associate Professor of Cancer Biology
A.B. (Harvard 1985); Ph.D. (Texas, Southwestern Medical 1992, 1999) [1999]

JODY BARNWELL SMITH, Assistant in Surgery
B.S. (Tennessee Technological 2006); D.N.P. (UT Health Science Center [Tennessee] 2013) [2016]

JOSHUA CARL SMITH, Instructor in Biomedical Informatics
B.S. (Murray State 2006); M.S. (Illinois, Champaign 2009); M.S., Ph.D. (Vanderbilt 2012, 2016) [2016]

JEEVES F. SMITH, Associate Clinical Professor of Pediatrics
B.S. (Tennessee, Chattanooga 1998); M.D. (UT Health Science Center [Tennessee] 2002) [2008]

M. KEVIN SMITH, Assistant Professor of Clinical Medicine

KURT A. SMITH, Associate Professor of Emergency Medicine; Associate Professor of Pediatrics
B.A. (Rice 2001); M.D. (Harvard Medical 2005) [2009]

LOREN ELISA SMITH, Instructor in Anesthesiology
B.A. (DePauw 2004); Ph.D., M.D. (Cincinnati 2010, 2012) [2016]

MARTHA JANE SMITH, Assistant Professor of Clinical Anesthesiology
B.S. (Tennessee Technological 1998); M.D. (UT Health Science Center [Tennessee] 2002) [2012]

MARYLOU SMITH, Assistant Professor of Clinical Obstetrics and Gynecology
B.S.N. (Saint John Fisher 2005); M.S.N. (Vanderbilt 2006) [2013]

MICHAEL LEE SMITH, Associate Clinical Professor of Medicine
B.S. (Davidson 1977); M.S. (East Carolina 1979, 1983) [1994]

PAIGE J. SMITH, Associate Clinical Professor
B.S. (Tennessee 1998); M.D. (UT Health Science Center [Tennessee] 2002) [2005]

RAPHAEL F. SMITH, Professor of Medicine, Emeritus
B.A. (Harvard Medical 1960) [1969]

RICHARD P. SMITH, Assistant Clinical Professor of Pediatrics
B.S. (Samford 1998); M.D. (Mercer 2004) [2007]

SCOTT ALAN SMITH, Assistant Professor of Medicine

SETH A. SMITH, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Ophthalmology and Visual Sciences; Associate Professor of Biomedical Engineering
B.S., B.S. (Virginia Polytechnic Institute 2001, 2001); Ph.D. (Johns Hopkins 2006) [2009]

STEPHEN J. SMITH, Assistant Professor of Clinical Medicine

TATANISHA P. SMITH, Clinical Instructor in Pediatrics
B.S. (Florida Agricultural and Mechanical 2001); M.D. (Meharry Medical 2005) [2014]

TERRENCE A. SMITH, Assistant Professor of Medicine
A.A., B.S. (Ohio State 1985, 1990); M.D. (Wright State 1997) [2003]

VALERIE SMITH-GAMBLE, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.S. (Ohio 1975); M.Sc., M.D. (Indiana, Indianapolis 2003, 2003) [2016]

JAMES D. SNELL, JR., Professor of Medicine, Emeritus
B.S. (Centenary (New Jersey) 1954); M.D. (Vanderbilt 1958) [1963]

DAVID J. SNODGRASS, Assistant Clinical Professor of Oral and Maxillofacial Surgery

BARBARA M. SNOOK, Assistant Professor of Clinical Medicine

S. STEVE SNOW, Clinical Professor of Psychiatry and Behavioral Sciences
B.A. (Arkansas 1973); M.D. (Arkansas, Little Rock 1977) [1982]

LAURA L. SNYDER, Instructor in Clinical Ophthalmology and Visual Sciences
B.S. (Yale 2008); M.D. (Case Western Reserve) [2012] [2016]

ROBERT B. SNYDER, Adjunct Assistant Professor of Orthopaedic Surgery and Rehabilitation
B.A. (Kalamazoo 1968); M.D. (Wayne State 1972) [1977]

STANLEY O. SNYDER, JR., Associate Clinical Professor of Surgery at St. Thomas Medical Center
B.A. (Centre 1968); M.D. (Louisville 1972) [1995]

RACHEL SOBEL, Assistant Professor of Ophthalmology and Visual Sciences
B.A. (Harvard 1999); M.D. (California, San Francisco 2006) [2015]

CHRISTOPHER M. SOBEY, Assistant Professor of Clinical Anesthesiology
B.A. (Wake Forest 2005); M.D. (Texas, San Antonio 2009) [2014]

JENNA M. HELMER SOBEY, Assistant Professor of Anesthesiology
B.S. (Texas A & M 2003); M.D. (Texas, San Antonio 2009) [2014]

ANDREW G. SOKOLOW, Assistant Professor of Pediatrics

KIRA SOLDANI, Assistant in Surgery
B.S.N. (Lipscomb 2007); M.S.N. (Belmont 2013) [2014]

BARBARA J. SOLOMON, Assistant Professor of Clinical Pediatrics
M.D. (McGill [Canada] 1998) [2016]

GARY S. SOLOMON, Professor of Neurological Surgery; Associate Professor of Psychiatry and Behavioral Sciences; Associate Professor of Orthopaedic Surgery and Rehabilitation
B.A. (Georgia 1974); M.S. (Mississippi State 1975); Ph.D. (Texas Tech University 1983) [1996]

CARMEN C. SOLORZANO, Professor of Surgery
B.S., M.D. (Florida 1989, 1993) [2010]

SUJEELA SOMARAJAN, Research Instructor in Surgery
B.Sc. (Kerala [India] 1993); M.Sc. (University College, Warangal [India] 1992); B.Ed. (Kerala [India] 1993); M.Phil. (University College, Warangal [India] 1996); Ph.D. (Vanderbilt 2010) [2013]

WENQIANG SONG, Research Instructor in Medicine
B.S. (Beijing Institute of Chemical Engineering [China] 2002); Ph.D. (Peking [China] 2009) [2015]

HASAN H. SONMEZTURK, Assistant Professor of Neurology
M.D. (Marmara [Turkey] 1999) [2010]

KELLY L. SOPKO, Assistant Professor of Medicine
B.S. (Notre Dame 1997); M.D. (Kentucky, Lexington 2001) [2007]

MAY ROGER SOREY, Assistant in Medical
B.S. (Millsaps 2009); M.S.N. (Vanderbilt 2011) [2016]
IBERIA ROMINA SOSA, Visiting Assistant Professor of Medicine
M.S. (Louisiana State 1999); B.A. (Tulane 1999); M.D. (Minnesota 2007) [2010]

JONATHAN H. SOSLOW, Assistant Professor of Pediatrics
B.A. (Williams 1999); M.D. (Louisiana State, New Orleans 2003); M.S.C.I. (Vanderbilt 2014) [2010]

JEFFREY A. SOSMAN, Adjunct Professor of Medicine
B.A. (Brandeis 1976); M.D. (Yeshiva 1981) [2001]

MARINOS C. SOTERIOU, Assistant Professor of Clinical Surgery
M.D. (Cologne [Germany] 1986) [1998]

CLINQUE SOTO, Research Associate Professor of Pediatrics
B.S., B.S. (Rutgers 1997, 1997); Ph.D. (Columbia 2006) [2016]

E. MICHELLE SOUTHDARD-SMITH, Associate Professor of Medicine; Associate Professor of Cell and Developmental Biology
B.S. (Oklahoma 1987); Ph.D. (Texas, Southwestern Medical 1992) [1999]

MOHAMMED SOUTTO, Research Instructor in Surgery

MAX SPADERNA, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.A. (Massachusetts 2006); M.D. (Massachusetts, Boston 2010) [2015]

ANTHONY J. SPAHR, Adjunct Assistant Professor of Hearing and Speech Sciences

THOMAS KENNETH SPAIN, JR., Assistant Clinical Professor of Medicine
B.S. (Alabama, Huntsville 2006); M.D. (Vanderbilt 2010) [2014]

LUCY B. SPALLUTO, Assistant Professor of Radiology and Radiological Sciences

JONATHAN M. SPANIER, Associate Clinical Professor of Pediatrics
B.S. (Duke 1999); M.D. (Vanderbilt 2003) [2006]

MATTHEW D. SPANN, Assistant Professor of Surgery
B.S. (Samford 2004); M.D. (Alabama, Birmingham 2008) [2013]

CHRISTY L. SPARKMAN, Assistant in Medicine
A.A.S. (Itawamba Community 1990); M.S.N. (Vanderbilt 2000) [2004]

HOLLY C. SPARKS, Assistant Professor of Clinical Pediatrics
B.S. (Samford 1996); D.O. (Nova Southeastern 2001) [2015]

NIKKI SLOANE SPARKS, Assistant in Psychiatry and Behavioral Sciences
B.A., M.S.N. (Vanderbilt 2014, 2016) [2017]

MARCIA E. SPEAR, Assistant in Plastic Surgery; Adjunct Assistant Professor of Nursing
A.D.N. (Western Kentucky 1977); B.S.N. (Tennessee State 1996); M.S.N., D.N.P. (Vanderbilt 1999, 2010) [2002]

KAREN ELIZABETH SPECK, Assistant Professor of Pediatric Surgery
B.S. (Tennessee, Memphis 2001); M.D. (UT Health Science Center [Tennessee] 2002) [2005]

STEPHANIE M. SPENCE, Assistant in Pediatrics
B.S.N. (Tennessee, Chattanooga 2002); M.S.N. (Vanderbilt 2006) [2010]

C. NORMAN SPENCER, Clinical Professor of Pediatrics
B.A., M.D. (Vanderbilt 1972, 1976) [1979]

DAN M. SPENGLER, Professor of Orthopaedic Surgery and Rehabilitation, Emeritus
B.S. (Baldwin-Wallace 1962); M.D. (Michigan 1966) [1983]

THEODORE SPEROFF, Professor of Medicine, Emeritus
B.S., Ph.D., M.S. (Akron 1974, 1979, 1984); Ph.D. (Case Western Reserve 1987) [1999]

BENNETT M. SPETALNICK, Associate Clinical Professor of Obstetrics ad Gynecology

JAMIE BRADFORD SPICER, Assistant in Medicine
B.S. (Lipscomb 1983); M.S.N. (Vanderbilt 1996) [2012]

W. ANDERSON SPICKARD III, Assistant Dean for Education Design and Technology; Associate Professor of Medicine; Associate Professor of Biomedical Informatics
B.A. (North Carolina 1985); M.D. (Vanderbilt 1989); M.S. (Virginia 1995) [1995]

W. ANDERSON SPICKARD, JR., Professor of Medicine, Emeritus
B.A., M.D. (Vanderbilt 1953, 1957) [1983]

ALEXANDRIA SPIDALIERI, Assistant in Pediatrics
B.S. (Boston University 2006); M.Ed. (Vanderbilt 2010) [2016]

BENJAMIN W. SPILLER, Associate Professor of Pharmacology; Associate Professor of Pathology, Microbiology and Immunology
B.S. (California, Davis 1994); Ph.D. (California, Berkeley 1999) [2006]

KURT P. SPINDLER, Adjunct Professor of Orthopaedic Surgery and Rehabilitation
B.A. (Rutgers, Newark 1981); M.D. (Pennsylvania 1985) [1991]

STEVEN S. SPIRES, Assistant Professor of Medicine
B.S. (Georgia 2003); M.D. (Mercer 2009) [2014]

DAVID W. SPIVEY, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.A. (Hendrix 1987); D.D.S. (Tennessee 1992) [2016]

KELLY E. SPONSLER, Assistant Professor of Medicine
B.S. (Emory 1999); M.D. (Pennsylvania State 2004) [2008]

JOHN SPOONER, Assistant Clinical Professor of Neurosurgery; Adjunct Assistant Professor of Radiology and Radiological Sciences

STEPHANIE E. SPOTTISWOOD, Professor of Pediatrics; Professor of Radiology and Radiological Sciences

NATALIE M. SPRADLIN, Assistant Professor of Clinical Medicine
B.S. (Vanderbilt 2000) [2004]

JEFFREY M. SPRAGGINS, Research Assistant Professor of Biochemistry
B.A. (Wooster 2003); Ph.D. (Delaware 2009) [2012]

MICHELE D. SPRING, Adjunct Assistant Professor of Pediatrics

LILLIAN CLAIRE SPURLING, Assistant in Orthopaedic Surgery and Rehabilitation
B.S. (Florida 2012); M.S. (Nova Southeastern 2015) [2016]

CHARLES F. SPURLOCK III, Research Instructor in Medicine
B.S. (University of the South 2009); Ph.D. (Vanderbilt 2014) [2015]

SUBRAMANIAM SRI RANAM, William C. Weaver III Chair in Neurology; Professor of Neurology; Professor of Pathology, Microbiology and Immunology
M.B.B.S. (Madrás [India] 1973) [1993]

PAUL J. ST. JACQUES, Professor of Anesthesiology; Professor of Biomedical Informatics

MICHAEL G. STABIN, Associate Professor of Radiology and Radiological Sciences; Associate Professor of Physics; Associate Professor of Civil and Environmental Engineering

LAWRENCE B. STACK, Professor of Emergency Medicine; Professor of Pediatrics
B.S. (South Dakota State 1983); M.D. (Oral Roberts 1987) [1995]

JACQUELINE STAFFORD, Assistant Professor of Clinical Obstetrics and Gynecology
B.S. (Lipscomb 1987); M.D. (Tennessee, Memphis 1991) [2012]

JOHN M. STAFFORD, Assistant Professor of Medicine; Assistant Professor of Molecular Physiology and Biophysics

STEPHEN M. STAGGS, Clinical Instructor in Obstetrics and Gynecology
B.S. (Lipscomb 1975); M.D. (UT Health Science Center [Tennessee] 1978); M.T.S. (Vanderbilt 2013) [1983]

MILDERD T. STAHLHAN, Professor of Pediatrics; Professor of Pathology, Microbiology and Immunology
B.A., M.D. (Vanderbilt 1943, 1946) [1951]

ALACIA TRENT STAINBROOK, Assistant in Pediatrics

SARAH C. STALLINGS, Research Assistant Professor of Medicine
B.A. (Oberlin 1988); M.P.H., Ph.D. (Yale 1997, 1997) [2016]

TIMOTHY W. STAMBAUGH, Associate in Psychiatry and Behavioral Sciences
B.A. (Ohio Christian 1991); M.A. (Asbury Theological Seminary 1994) [2000]
SALLY A. WATSON, Assistant Professor of Pediatrics; Assistant Professor of Anesthesiology
B.S. (Indiana, Indianapolis 1990); M.D. (Vanderbilt 1994) [2001]

JULIA J. WATTACHERIL, Adjunct Assistant Professor of Medicine
B.S. (Brandeis 1999); M.D. (Baylor 2004); M.P.H. (Vanderbilt 2010) [2008]

CAROLYN S. WATTS, Senior Associate in Surgery
B.S.N. (Olivet Nazarene 1971); M.S.N. (Tennessee 1978); MSN, RN, CWON, ACNP, HSM [2002]

LAURA L. WAYMAN, Associate Professor of Ophthalmology and Visual Sciences
B.A. (National, San Diego 1983); M.S. (Maryland 1985); M.D. (Mayo Medical 1998) [2003]

ALLISSA M. WEAVER, Professor of Cancer Biology; Professor of Cell and Developmental Biology; Professor of Pathology, Microbiology and Immunology

C. DAVID WEAVER, Assistant Professor of Pharmacology
B.S., Ph.D. (Tennessee 1989, 1994) [2003]

ELEANOR O. WEAVER, Assistant Professor of Clinical Medicine
B.A. (Rice 2008); M.D. (Baylor 2012) [2015]

KYLE DEREK WEAVER, Assistant Professor of Neurological Surgery; Assistant Professor of Otolaryngology
B.S. (Duke 1988); M.D. (North Carolina 1996) [2004]

LAUREN A. WEAVER, Assistant in Pediatrics
B.A. (Alabama, Huntsville 2000); M.S. (Auburn, Montgomery 2011) [2014]

SHEENA M. WEAVER, Assistant Professor of Clinical Anesthesiology
B.S. (Baldwin-Wallace 2001); M.D. (Case Western Reserve 2006) [2011]

LIZA M. WEAVIND, Professor of Anesthesiology; Professor of Surgery
M.B.B.Ch. (Witwatersrand [South Africa] 1990); M.Mgt. (Vanderbilt 2014) [2007]

DONNA JANE WEBB, Associate Professor of Biological Sciences; Associate Professor of Cancer Biology
B.S. (James Madison [Virginia] 1989); Ph.D. (Virginia 1995) [2005]

LYNN E. WEBB, Assistant Dean for Faculty Development; Assistant Professor of Medical Education and Administration (VUMC); Adjunct Assistant Professor of Nursing

TRENIA LYN WEBB, Assistant Professor of Clinical Obstetrics and Gynecology
B.S. (Lipscomb 1994); M.D. (Tennessee, Memphis 2003) [2009]

WANDA G. WEBB, Assistant Professor of Hearing and Speech Sciences
B.S. (Middle Tennessee State 1970); M.S. (Eastern Illinois 1971); Ph.D. (Vanderbilt 1979) [1978]

WARREN W. WEBB, Professor of Psychiatry, Emeritus
B.A. (North Carolina 1947); Ph.D. (Duke 1952) [1955]

STEVEN A. WEBBER, James C. Overall Chair in Pediatrics; Professor of Pediatrics; Chair of the Department of Pediatrics

ROBERT J. WEBSTER III, Associate Professor of Biomedical Informatics
M.Ed. (Peaking Union Medical [China] 2005); Ph.D. (Minnesota 2012) [2014]

DOUGLAS R. WEBERT, Associate Professor of Clinical Ophthalmology and Visual Sciences
B.S. (Indiana, Bloomington 1987); M.D. (Vanderbilt 1991) [1995]

P. ANTHONY WEIL, Professor of Molecular Physiology and Biophysics
B.S. (Northern Illinois 1972); Ph.D. (Arizona, Tucson 1976) [1986]

STUART T. WEINBERG, Associate Professor of Biomedical Informatics; Associate Professor of Pediatrics
B.A. (Dartmouth 1981); M.D. (Cincinnati 1985) [2004]

ELIZABETH E. WEINER, Senior Associate Dean for Informatics; Centennial Independence Foundation Professor of Nursing; Professor of Biomedical Informatics
B.S. (Kentucky, Lexington 1975); M.S.N. (Cincinnati 1978); Ph.D. (Kentucky, Lexington 1982) [2000]

MATTHEW BRET WEININGER, Norman Ty Smith Chair in Patient Safety and Medical Simulation; Professor of Anesthesiology; Professor of Biomedical Informatics; Professor of Medical Education and Administration (VUMC); Professor of Civil and Environmental Engineering
M.S., B.S. (Stanford 1978, 1982); M.D. (California, San Diego 1982) [2004]

ASLI WEITKAMP, Assistant Professor of Biomedical Informatics

JORN-HENDRIK WEITKAMP, Associate Professor of Pediatrics
M.D. (Ulm [Germany] 1995) [2006]

AMY S. WEITLAF, Assistant Professor of Pediatrics
B.A. (Texas 2003); M.S., Ph.D. (Vanderbilt 2006, 2011) [2013]

GLENN A. WEITZMAN, Assistant Clinical Professor of Obstetrics and Gynecology
B.S. (Stony Brook 1978); M.D. (Johns Hopkins 1982) [1996]

EDWARD BRIAN WELCH, Assistant Professor of Radiology and Radiological Sciences; Assistant Professor of Biomedical Engineering
B.S. (Southern California 1998); Ph.D. (Mayo Medical 2003) [2004]

JOHN C. WELLONS, Professor of Neurological Surgery; Professor of Pediatrics; Chief of Pediatric Neurosurgery
B.S. (Mississippi 1991); M.D. (Mississippi, Jackson 1995) [2012]

MELUSSA F. WELLONS, Assistant Professor of Medicine

COLETTE R. WELLONS, Certified Nurse Anesthetist
B.S.N. (Rush 1993); M.S.N. (Indiana, Indianapolis 2012) [2016]

JACK N. WELS, Assistant Professor of Pharmacology, Emeritus

K. SAM WELLS, Adjunct Professor of Molecular Physiology and Biophysics
B.S. (Utah 1982); M.S., Ph.D. (New Mexico 1984, 1987) [2000]

QUINN STANTON WELLS, Assistant Professor of Medicine; Assistant Professor of Pharmacology
B.S. (East Tennessee State 1997); Pharm.D. (Samford 2002); M.D. (Alabama, Birmingham 2006); M.S.C.I., M.S. (Vanderbilt 2013, 2014) [2013]

ROBERT A. WELLS, Assistant Professor of Clinical Anesthesiology
B.A. (Transylvania 2001); M.D. (Louisville 2005) [2009]

WANQING WEN, Research Associate Professor of Medicine

J. JASON WENDEL, Assistant Clinical Professor of Plastic Surgery
B.A. (Wabash 1992); M.D. (Indiana, Indianapolis 1996) [2002]

RICHARD J. WENDORF, Associate Professor of Clinical Pediatrics
B.S. (Illinois, Chicago 1989); M.D. (Southern Illinois, Springfield 1993) [2013]

SUSAN RAE WENTE, University Provost; Professor of Cell and Developmental Biology
B.S. (Iowa 1984); Ph.D. (California, Berkeley 1988) [2002]

MARTIN WERE, Associate Professor of Biomedical Informatics; Associate Professor of Medicine
B.S. (Harvard 1997); M.D. (Harvard Medical 2001); M.S. (Indiana, Indianapolis 2008) [2016]

JAY A. WERKHABEN, Professor of Clinical Otolaryngology
B.A. (Wittenberg 1979); M.D. (Wake Forest 1982) [1989]

JOHN R. WERTHER, Associate Clinical Professor of Oral and Maxillofacial Surgery
B.S. (SUNY, Syracuse 1981); D.M.D. (Harvard 1986); M.D. (Vanderbilt 1988) [1991]
AARON YANG, Assistant Professor of Physical Medicine and Rehabilitation
B.S. (Syracuse 2005); M.D. (SUNY, Upstate Medical Center 2009) [2014]

GONG YANG, Research Professor of Medicine
M.D. (Zhejiang [China] 1984); M.P.H. (Shanghai Medical [China] 1990) [2000]

HAICHUN YANG, Research Instructor in Pathology, Microbiology and Immunology; Research Instructor in Pediatrics
B.S., M.D. (Shanghai Medical [China] 1994, 1996); Ph.D. (Fudan [China] 2005) [2013]

PAI-FENG YANG Research Instructor in Radiology and Radiological Sciences
B.S., M.S. (Chung-Yuan Christian [Taiwan] 1999, 2001); Ph.D. (National Taiwan 2011) [2016]

TAO YANG, Research Professor of Medicine; Research Professor of Pharmacology

YU-PING YANG, Research Instructor in Medicine
B.S., M.S. (National Taiwan 1999, 2001); Ph.D. (Duke 2007) [2015]

THOMAS E. YANKELOV, Adjunct Professor of Radiology and Radiological Sciences
B.A. (Louisville 1996); M.A., M.S. (Indiana, Bloomington 1998, 2000); Ph.D. (Stony Brook 2003) [2006]

SONG-YI YAO, Research Assistant Professor of Neurology
M.D. (Shanghai Medical [China] 1977); M.S. (Shanghai [China] 1979) [2000]

JOSHUA L. YARBROUGH, Associate in Anesthesiology
B.S. (Memphis 1993); M.S. (Vanderbilt 1995) [2002]

MARY I. YARBROUGH, Associate Professor of Clinical Medicine; Assistant Professor of Health Policy
B.S., M.D. (Vanderbilt 1976, 1981); M.P.H. (Johns Hopkins 1990) [1994]

PATSY C. YARBROUGH, Assistant in Pediatrics
B.S.N. (Vanderbilt 1975); M.S.N. (Tennessee 1988) [2004]

AIDA YARED, Associate Professor of Pediatrics

EUGENIA M. YAZLOVITSKAYA, Research Associate Professor of Medicine
M.S. (Kiev State [Ukraine] 1984); Ph.D. (Palladin Institute of Biochemistry [Ukraine] 1997) [2010]

FEI YE, Associate Professor of Biostatistics
B.S. (Southwestern University of Finance and Economics [China] 2001); M.S.P.H., Ph.D. (South Carolina 2004, 2007) [2007]

MADHU S. YELAMEL, Adjunct Assistant Professor of Anesthesiology
M.B.B.S. (Government Medical, Mysore [India] 1989) [2007]

ASHWINI K. YENAMANDRA, Assistant Professor of Pathology, Microbiology and Immunology
M.S., Ph.D. (Andhra [India] 1976, 1982) [2009]

JOHN E. YEZERSKI, Assistant Clinical Professor of Oral and Maxillofacial Surgery
B.S. (Samford 2002); D.M.D. (Kentucky, Lexington 2006) [2009]

MAAME YAA A. YIADOM, Assistant Professor of Emergency Medicine

CHRISTINA YNARES, Assistant Clinical Professor of Medicine
B.S., M.D. (Philippines 1968, 1972) [1981]

NANCY YOANIDIS, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
B.S., M.D. (**Pennsylvania State University 1985, 1994) [2004]

ADAM DOUGLAS YOCK, Assistant Professor of Radiation Oncology
B.A. (Harvard 2008); Ph.D. (Texas, Houston 2014) [2016]

PAUL J. YODER, Professor of Special Education; Research Professor of Hearing and Speech Sciences
B.S. (Louisiana State 1978); M.S. (Peabody 1979); Ph.D. (North Carolina 1985) [1986]

TADAYUKI YONEYAMA, Associate Clinical Professor of Pediatrics
B.S. (Duke 1990); M.D. (Medical College of Virginia 1994) [1998]

JOHN D. YORK, Natalie Overall Warren Chair in Biochemistry; Professor of Biochemistry; Chair of the Department of Biochemistry
B.S. (Iowa 1986); Ph.D. (Washington University 1993) [2012]

SALLY J. YORK, Assistant Professor of Medicine
B.S. (Iowa 1986); Ph.D., M.D. (Washington University 1996, 1999) [2012]

WEI-CHENG YOU, Adjunct Professor of Medicine
M.D. (Beijing [China] 1977) [2016]

JAMEY D. YOUNG, Associate Professor of Chemical and Biomolecular Engineering; Associate Professor of Molecular Physiology and Biophysics; Director of Graduate Recruiting for Chemical and Biomolecular Engineering
B.S. (Kentucky, Lexington 1999); Ph.D. (Purdue 2005) [2008]

JESSICA L. YOUNG, Assistant Professor of Obstetrics and Gynecology

LISA R. YOUNG, Associate Professor of Pediatrics; Associate Professor of Medicine; Associate Professor of Cell and Developmental Biology
B.A. (Virginia 1993); M.D. (Duke 1997) [2011]

PAMPEE PAUL YOUNG, Associate Professor of Pathology, Microbiology and Immunology; Associate Professor of Medicine; Associate Professor of Cell and Developmental Biology
B.A. (Rice 1990); Ph.D., M.D. (Texas, Southwestern Medical 1996, 1998) [2003]

RUTH T. YOUNG, Associate Professor of Clinical Medicine
B.A. (Duke 1972); M.A. (Minnesota 1974); M.D. (UT Health Science Center [Tennessee] 1977); M.Mgt. (Vanderbilt 2000) [1998]

SEAN M. YOUNG, Assistant Clinical Professor of Oral and Maxillofacial Surgery
D.D.S. (California, Los Angeles 2008); M.D. (Vanderbilt 2011) [2015]

CHANG YU, Associate Professor of Biostatistics
B.S. (University of Science and Technology of China, Hefei 1990); M.S. (Southern Maine 1993); M.S. (Minnesota 1995); Ph.D. (Yale 1998) [2004]

DANXIA YU, Assistant Professor of Biostatistics
B.S. (Beijing Normal [China] 2007); Ph.D. (Chinese Academy of Sciences 2012) [2016]

ERIN N.Z. YU, Assistant Professor of Pathology, Microbiology and Immunology
B.S. (West Virginia 2002); D.V.M. (Ohio State 2006) [2008]

HONG YU, Assistant Professor of Neurosurgical Surgery
A.B. (Harvard 1998); M.D. (Vanderbilt 2002) [2013]

HUI YU, Research Assistant Professor of Cancer Biology
B.Sc. (East China Normal 2001); M.Sc. (Harbin Medical [China] 2004); Ph.D. (Chinese Academy of Sciences 2012) [2016]

MI YU, Assistant Clinical Professor of Psychiatry and Behavioral Sciences
M.D. (Shanghai Medical [China] 1878); Ph.D. (Missouri 1996) [2010]

FIONA E. YULL, Associate Professor of Cancer Biology

AMANDA C. YUNKER, Associate Professor of Obstetrics and Gynecology
B.S. (Texas Christian 1999); D.O. (North Texas State 2006) [2008]

SYEDA SADIA ZAIDI, Assistant Professor of Medicine
M.B.B.S. (Dow Medical [Pakistan] 2002) [2012]

ALEXANDER ZAIKA, Associate Professor of Surgery
B.S., M.S. (Saint Petersburg State Technical [Russia] 1983, 1986); Ph.D. (Mendeleev University of Chemical Technology [Russia] 1995) [2005]

OLAMIDE ZAKA, Assistant Professor of Clinical Medicine
B.S. (Georgia 2006); M.D. (Wisconsin 2010) [2013]

JAMEY D. ZALD, Associate Professor of Psychology; Professor of Psychiatry and Behavioral Sciences; Director of Neuroscience
B.A. (Michigan 1989); Ph.D. (Minnesota 1997) [2000]

AMY K. ZAPATA, Assistant Professor of Pediatrics
B.A., M.D. (Brown 2010, 2011) [2014]

RICHARD M. ZANER, Professor of Medicine (Medical Ethics), Emeritus
Index

Academic policies 41, 58
Academic programs 41
Accreditation, university 10
Accreditation, CME 31
Activities and recreation fees 66, 72
Activities, extracurricular 19
Address change 12
Administration, School of Medicine 7
Administration, university 6
Admission, School of Medicine 33
Adverse actions 51
Advisers 48, 54, 55
Advisory roles, key 54
Affiliated clinical education sites 29
Alpha Omega Alpha 64
Alternative transportation 15
Alumni Hall 19
Anesthesiology courses 74
Annual security report 13, 19
Anti-harassment 16
Anti-retaliation 16
Appeals, dismissal 53, 60, 61
Application procedure 33
Applied clinical informatics courses 112
Assessment philosophy 47
Athletic facilities 20
Attendance policy 44
Au.D. 37, 55, 71
Audiology courses 105
Audiology, Doctor of 37, 55, 71
Awards 64

Barnes & Noble at Vanderbilt 12
Behavior, standards of 24
Bicycle registration 15
Bill Wilkerson Center 31
Biomedical Ethics, Certificate in 61
Biomedical Informatics, M.D./M.S. in 35
Black Cultural Center, Bishop Joseph Johnson 13
Board of Trust, university 5
By laws, honor constitution 24

Calendar 4
Campus Security Report 13, 19
Cancer Center, Vanderbilt-Ingram 29
Career Center 11
Center for Student Professional Development—See Career Center
Center for Experiential Learning and Assessment (CELA) 30
Center for Teaching 11
Certificate programs, graduate 61
Change of address 12
Chaplain 14
Child and Family Center 18
Child Care Center 18
Children’s Hospital 29
Class day awards 64
Clinic, The Vanderbilt 29
Clinical education sites, affiliated 29
Clinical fellowships 31
Clinical investigation courses 103
Clinician assessments of student performance 48
Colleges, The 42, 44, 53, 54, 55
Commencement 51
Committees, selected other, related to medical education 9
Committees, standing, School of Medicine 7
Commodore Card 12
Commons Center 19
Communications, official university 18
Compact between teachers and learners 25
Competencies for learners 27
Computer resources (VUIT) 12
Conduct expectations 47
Confidentiality limits 26
Confidentiality of student records 13, 17
Conflicting roles 26
Continuing medical education 31
Continuous professional development office 31
Core clinical curriculum 42
Core entrustable professional activities for entering residency 43
Counseling services 15
Courses of study 74
Crime alerts 19

Dayani Center for Health and Wellness, Vanderbilt 31
Degree and promotion requirements, doctor of medicine 41
Degree requirements, other degrees 55
Degrees offered, university 10
Diabetes Center, Vanderbilt 30
Diagnostic radiology courses 109
Dining services 12
Directory listings 17
Disabilities, services for students with 16
Disability insurance 66, 72
Dismissal 52, 60
Diversity Affairs, VUSM Office for 54
D.M.P. 37, 58, 71
Doctor of Audiology (Au.D.) 37, 55, 71
Doctor of Medical Physics (D.M.P.) 37, 58, 71
Doctor of Medicine 33, 35, 41
Dual-degree programs 35
Duty hours, medical student 46

Eating on campus 12
Education records 13, 17
Educational and assistance programs, police department 19
Education of the deaf courses 106
Emergency Medicine courses 74
Emergency phones 19
Entrance recommendations 33
Entrance requirements 33
Equal Opportunity, Affirmative Action, and Disability Services (EAD) 2, 16, 26
Equity in Athletics Disclosure Act Report 13
Escort service (Vandy Vans) 18, 19
Eskind Biomedical Library 14
Examinations, conduct in 47
Executive faculty, School of Medicine 7
Expectations for conduct 47
Experiential Learning and Assessment, Center for (CELA) 30
Extracurricular activities 19
Extracurricular work 46

Facilities of the Medical Center 29
Faculty 114
Fees 66, 67, 72
FERPA 13, 17
Financial assistance 13, 34, 63, 73
Financial clearance 66, 72
Financial information 66, 71
Foundations of Clinical Care (FCC) 41, 44
Foundations of Health Care Delivery (FHC) 42
Foundations of Medical Knowledge (FMK) 41, 44
Founder's Medal 64

Global Health, Certificate in 62
Global health courses 84
Gold Humanism Honor Society 64
Good standing 60
Grading and promotion, other degrees 59
Grading policy, doctor of medicine 48
Grading scales 48
Graduate certificate programs 61
Graduate Development Network 11
Graduate medical education 31
Graduate programs in hearing and speech sciences 37, 55, 71
Graduate programs in medical physics 37, 58, 71
Graduate Student Council 11
Graduation 51
Graduation rates 13
Grievances, student, concerning grades 17, 49

Health center, student 15
Hearing and Speech Sciences 37, 55, 71
Heart and Vascular Institute, Vanderbilt 31
History, School of Medicine 21
History, university 10
Honor code 22
Honor Council Constitution 22
Honor system 22
Honors and awards 64
Hospital, Monroe Carell Jr. Children's 29
Hospital, Psychiatric 29
Hospital, Vanderbilt Stallworth Rehabilitation 29
Hospital, Vanderbilt University 29
Hospitalization insurance 16, 66, 72
Housing 12
Human Development, Vanderbilt Kennedy Center for Research on 30

Identification card (Commodore Card) 12
Immersion phase 42, 45
Immunization requirements 16, 75
Information technology 12
Inquiry program 42
Insurance, disability 66, 72
Insurance, family coverage 16
Insurance, hospitalization 16, 66, 72
Insurance, international students 16
Insurance, liability 66, 72
Interdisciplinary studies courses 75
International Education Policy and Management, M.P.H./M.Ed. in 36
International Student and Scholar Services 12
International students 12, 40
Interprofessional learning, Vanderbilt program in (VPIL) 42

J.D. 35
Jewish Life, Schulman Center for 14
Johnson, Bishop Joseph, Black Cultural Center 13
Kennedy Center 30
Kissam Center 19

Laboratory investigation courses 108
Late payment of fees 66, 72
Latin American Studies, M.P.H./M.A. in 36
Learning communities 42
Leave of absence 46, 61
Lesbian, Gay, Bisexual, and Transgender (LGBT) Health, Certificate in 62
LGBTQI Life, Office of 14
Liability insurance for students 66, 72

Library, Annette and Irwin Eskind Biomedical (EBL) 14
Library, Jean and Alexander Heard 14
Light, Rudolph A., Hall 21, 30
Limits of confidentiality 26
Longitudinal requirements 42
Maintenance of certification 31
Master of Education of the Deaf (M.D.E.) 37, 56, 71
Master of Laboratory Investigation (M.L.I.) 38, 56, 72
Master of Public Health (M.P.H.) 38, 57, 71
Master of Science in Applied Clinical Informatics (M.S.A.C.I.) 38, 57, 72
Master of Science in Clinical Investigation (M.S.C.I.) 39, 58, 71
Master of Science in Medical Physics (M.S.M.P.) 37, 58, 71
Master of Science (Speech-Language Pathology) (S.L.P.) 37, 56, 71
M.D. 33, 35, 41
M.D./J.D. 35
M.D./M.A. in Medicine, Health, and Society 36
M.D./MBA 36
M.D./M.Div. 35
M.D./M.Ed. 35
M.D./M.P.H. 36
M.D./M.S. in Biomedical Informatics 35
M.D./M.T.S. 35
M.D./Ph.D. 35
M.D.E. 37, 55, 71
Medical Center North 30
Medical College Admission Test 33
Medical education 21
Medical education and administration courses 84
Medical Innovators Development Program (MIDP) 34, 43
Medical physics courses 109
Medical Research Building III 30
Medical Research Building IV 30
Medical Research Building, Ann and Roscoe Robinson 30
Medical Research Building, Frances Preston 30
Medical Scientist Training Program (MSTP) 35, 43
Medical student duty hours 46
Medical student performance evaluation 51
Medicine courses 84
Meharry medical students 39
MIDP (Medical Innovators Development Program) 34, 43
Mission statement, School of Medicine 21
Mission statement, university 10
M.L.I. 38, 56, 72
Monroe Carell Jr. Children's Hospital at Vanderbilt 29
M.P.H. 36, 38, 57, 71
M.P.H./M.A. (Latin American Studies) 36
M.P.H./M.Ed. (International Education Policy and Management) 36
M.S.A.C.I. 38, 57, 72
M.S.C.I. 39, 58, 71
M.S.M.P. 37, 58, 71
MSTP (Medical Scientist Training Program) 35, 43
Multiple roles, policy on 54
NBME examinations 47
Neurodevelopmental Disabilities (NDD), Certificate in 62
Neurology courses 88
Nondiscrimination 2, 16, 26
Obstetrics and gynecology courses 89
OMS-MD 34, 43
Ophthalmology and visual sciences courses 90
Oral and Maxillofacial Surgery-Doctor of Medicine (OMS-MD) 34, 43
Orthopaedic surgery and rehabilitation courses 90
Osteopathic students 39
Other single degrees 37, 38
Otolaryngology courses 90
Parking and vehicle registration 15
Pathology courses 91
Pediatric medicine courses 92
Performance evaluation, medical student 51
Phase-specific requirements 41, 44
Physical medicine and rehabilitation courses 96
Police Department, Vanderbilt University 18
Portfolio coaches 49, 55
Portfolio reviews 49, 50
Post-residency clinical fellowships 31
Preston, Frances, Medical Research Building 30
Preventive medicine courses 96
Prior degrees 18
Probation 51, 52, 60
Professional doctoral degree in audiology 37, 55
Professional liability insurance 66, 72
Professional programs in hearing and speech sciences 37
Professional programs in medical physics 37, 58
Program in Interprofessional Learning, Vanderbilt (VPIL) 42
Progress and promotion, medical student 47, 49, 59
Project Safe 15
Promotion committees 50, 51
Promotion, medical student 47, 49, 50
Promotion meetings 50
Promotion, other degrees 59
Psychiatric hospital 29
Psychiatry courses 97
Psychological and Counseling Center 15
Public health courses 110
Radiation oncology courses 99
Radiology courses 98
Rand Hall 19
Reconsideration of promotion decisions 52
Recreation and sports 20
Recreation and Wellness Center, Vanderbilt 20
Recreation fees 66, 72
Refunds of tuition 66, 72
Registration for degrees other than M.D. 58
Rehabilitation hospital 29
Religious life 14
Repeating a course 60
Reporting procedure, discrimination or harassment 25
Requirements for the M.D. 41
Residency match process 51
Residency training 31
Resources, graduate student 11
Robinson, Ann and Roscoe, Medical Research Building 30
Sarratt Student Center 19
Satisfactory progress 50
Scholarships 67
Schulman Center for Jewish Life 14
Security alerts 19
Security, campus (Police Department) 18
Security reports 13, 19
Selection factors, entrance 33
Sexual harassment 24
Single degree programs, other 37, 38
S.L.P. 37, 56, 71
Special experiences, eligibility for 51
Speech-language pathology courses 107
Sports and recreation 20
Stallworth Rehabilitation Hospital 29
Standards of behavior 24
Standing committees, School of Medicine 7
Strategy and Innovation Office, VUMC 31
Student government 11
Student handbook, Vanderbilt University 22
Student health care by VUSM educators, policy on 27
Student Health Center 15
Student health insurance 16, 66, 72
Student health service fee 67, 72
Student Life Center 19
Student records, confidentiality of 13, 17
Student support programs 53
Surgery courses 99
Suspension 52, 61
Teacher/learner compact 25
Temporary grades 48
Temporary suspension 52, 61
Therapeutic radiology courses 110
TOEFL (Test of English as a Foreign Language) 40
Transcripts 67, 73
Transfer students 34
Transplant Center 31
Transportation 46
Tuition and fees 66, 72
Tutoring 53
Universal Clinical Training Agreement (UCTA) 40
University courses 18
University, general information 10, 13
Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences 31
Vanderbilt Child and Family Center 18
Vanderbilt Clinic, The 29
Vanderbilt Dayani Center for Health and Wellness 31
Vanderbilt Diabetes Center 30
Vanderbilt directory listings 17
Vanderbilt Health 100 Oaks 30
Vanderbilt Health Williamson County 30
Vanderbilt Heart and Vascular Institute 31
Vanderbilt-Ingram Cancer Center 29
Vanderbilt Kennedy Center for Research on Human Development 30
Vanderbilt Program in Interprofessional Learning (VPIL) 42
Vanderbilt Psychiatric Hospital 29
Vanderbilt Recreation and Wellness Center 20
Vanderbilt Stallworth Rehabilitation Hospital 29
Vanderbilt Transplant Center 31
Vanderbilt University Hospital 29
Vanderbilt University Police Department 18
Vandy Vans 18
Vehicle registration 15
Verification fee 67, 73
Veterans Administration, Tennessee Valley Healthcare System of the 32
Visiting medical students 39, 40
VUMC Strategy and Innovation Office 31
Wilkerson, Bill, Center for Otolaryngology and Communication Sciences 31
Withdrawal from the School of Medicine 53
Withdrawal from the university 61
Women’s Center, Margaret Cuninggim 14
Work submitted for academic credit, expectations for conduct regarding 47
Writing Studio, The 13