

Resources for surviving and thriving in graduate school (with a focus on the sciences)

(Compiled by Jeff Johnston, February 2006)

Websites:

About.com's Surviving and Succeeding in Graduate School

A nuts and bolts guide that includes a wide variety of topics, including how to approach a professor for help, a grad student's guide to mentors and advisors, public speaking, getting started in your research, dealing with graduate school blues, and tips on time management and balancing school and family life.

<http://gradschool.about.com/od/survivinggraduateschool/>

The Chronicle of Higher Education's Chronicle Careers

News, advice and forums on a wide variety of issues relevant to succeeding in higher education.

<http://chronicle.com/jobs/>

The Council for Opportunity in Education

The mission of the Council is to advance and defend the ideal of equal educational opportunity in postsecondary education. As such, the focus of the Council is assuring that the least advantaged segments of the American population have a realistic chance to enter and graduate from a postsecondary institution. The COE is the home of the McNair Scholars Program, which is well established in helping minority students succeed in PhD programs.

<http://www.coenet.us/default.htm>

The Graduate Game Plan

Compiled by the University of British Columbia, the Graduate Game Plan guides students through the primary stages of their graduate education, providing advice for students on strategies for attaining academic and career success. While focusing on students at UBC, this resource contains a variety of useful information and links to additional sources of information. Be sure to visit the 'helpful links' page.

<http://grad.ubc.ca/gradpd/gameplan.html>

<http://grad.ubc.ca/gradpd/helpfullinks/gradsuccess.html>

The Howard University Science, Engineering and Mathematics Program (HUSEM)

The goal of the HUSEM program is to promote academic achievement as well as increase the numbers of underrepresented minorities who receive baccalaureate and graduate degrees in science, technology, engineering and mathematics (STEM) disciplines. The program includes a variety of components, including: Graduate School: Reaching Your Potential (GSRYP), and Promoting Academic Support and Success (PASS).

<http://www.howard.edu/sem/default.htm>

Mentor Net

MentorNet is the award-winning nonprofit e-mentoring network that addresses the retention and success of those in engineering, science and mathematics, particularly but not exclusively women and other underrepresented groups. Founded in 1997, MentorNet provides highly motivated protégés from many of the world's top colleges and universities with positive, one-on-one, email-based mentoring relationships with mentors from industry and academia. In addition, the MentorNet Community provides opportunities to connect with others from around the world who are interested in diversifying engineering and science.

<http://www.mentornet.net/>

The Minority Scientists Network

A collaboration between the Science Careers website and the AAAS directorate for Education and Human Resources.

http://sciencecareers.sciencemag.org/career_development/miscinet

Of particular interest on the Minority Scientists Network is the Graduate School Transitions Index, an index of articles on managing some of the transitions that inevitably come with graduate school.

http://sciencecareers.sciencemag.org/career_development/issue/articles/3430/miscinet_graduate_school_transitions_index/

PFF Web

The website of the Preparing Future Faculty (PFF) program, a “national movement to transform the way aspiring faculty members are prepared for their careers.” This site is a great portal to a wide variety of graduate student professional development.

<http://www.preparing-faculty.org/>

ScienceCareers.org

The Science magazine career website has many great resources on a wide variety of professional development topics.

http://sciencecareers.sciencemag.org/career_development

Surviving Graduate School

A page maintained by the National Institutes of Health that includes links on a variety of topics, including: deciding to pursue graduate school, choosing a graduate school, selecting an advisor, the dissertation, and a variety of ‘survival guides.’

<http://www.training.nih.gov/careers/careercenter/survgrad.html>

Symposia on Diversity in the Sciences

The next symposium will be held on April 7 and 8, 2006 at the University of Louisiana.

From the Introduction to the program:

Several institutions in the U.S. have developed highly successful programs for mentoring underrepresented science students. To disseminate information about these programs to institutions that are primed for change, three symposia will bring together administrators, faculty, and students from institutions committed to supporting diversity among undergraduate and graduate science students. Each participating team will attend one of the three symposia.

<http://www.williams.edu/biology/hhmi/index.php>

The Vanderbilt Psychological and Counseling Center

This office offers a variety of resources to help graduate students move from surviving mode to thriving mode, including individual sessions and workshops

<http://www.vanderbilt.edu/pcc/index.html>

Women in Cell Biology

This committee of the American Society for Cell Biology maintains this page with a variety of great resources for grad students and early career faculty.

<http://www.ascb.org/committees/wicb/index.cfm>

Articles:

An Insider's Guide to Choosing a Graduate Advisor and Research Projects in

Laboratory Sciences, Marshall Lev Dermer (A slightly revised version of this manuscript appears in the *Journal of Chemical Education*, 1993, *70*, 303-306.)

<http://www.psywww.com/tipsheet/insider.htm>

Graduate Education and Beyond, *Chemical and Engineering News*, November 25, 2002

A special report from C&E News with articles on choosing a graduate school, mentoring of minorities, life on the tenure track, and running a lab.

<http://pubs.acs.org/cen/education/8047/8047education.html>

How to Survive, Thrive and Learn Science in Graduate School: One Student's Perspective, Victoria Mundy Bhavsar, *J. Nat. Resour. Life Sci. Educ.*, 34, 2005.

Abstract: Many people enter scientific careers by way of graduate school. Some aspects of success in graduate school depend on informal sharing of knowledge that occurs among students. To formalize some of the student-to-student teaching, I have articulated eight practical ideas based on my experience about how students can perform well and develop habits in graduate school that will lead to being able to do good science in the future. These ideas are arranged under the major principles of motivation, discipline, and knowledge. Students should: work with others, work on something they believe in, meet their advisors regularly, plan experiments carefully, be meticulous in their work, not procrastinate, understand statistics applicable to their work, and have a good grounding in the basic sciences. Examples of well-known scientists who followed these practices are included.

Ph.D. Life: Surviving the Early Years, Edna Francisco, January 13, 2006, *Minority Scientists Network*

This article describes Sophia Suarez's path through a Ph.D. program in physics as an African-American single mother. The article lists a number of lessons learned and includes "Sophia's Survival Tips" for those entering graduate school.

http://sciencecareers.sciencemag.org/career_development/issue/articles/2006_01_13/ph_d_life_surviving_the_early_years/

Surviving the First Year of Graduate School, Lynn Wong, January 17, 2003, Science Careers.org.

The author offers a variety of organizational and management survival skills for graduate students.

http://sciencecareers.sciencemag.org/career_development/issue/articles/2170/surviving_the_first_year_of_graduate_school/

Take Charge of Your Ph.D. Training, Martin Farias, July 1, 2005, *Minority Scientists Network*

Tips on gaining independence from your research advisor.

http://sciencecareers.sciencemag.org/career_development/issue/articles/3640/take_charge_of_your_ph_d_training

Thinking Beyond the Dissertation, David Perlmutter and Lance Porter, *Chronicle of Higher Education*, December 12, 2006

An article from the Chronicle Careers department aimed at students planning to pursue careers in academia. The article emphasizes the importance of planning for the future while in graduate school, of seeing graduate school as a means rather than an end. The article provides 6 suggestions of things you should be doing while in graduate school to jump-start your academic career.

<http://chronicle.com/jobs/2005/12/2005121201c.htm>

What they Don't Teach You in Graduate School, Paul Gray and David Drew, *Inside Higher Education*, November 30, 2005 (the first of a 4 part series)

Each year, Ph.D. candidates and young faculty members come into our offices and sheepishly ask us to tell them what they really need to know about building a career in academia. We usually take them to a long lunch at the Faculty House and give them the helpful hints that we share with you here. We start with tips for getting out of graduate school and into your first job. Subsequent pieces will offer tips for later stages of academic careers.

<http://www.insidehighered.com/workplace/2005/11/30/tips>

Books

Advisor, Teacher, Role Model, Friend – On Being a Mentor to Students in Science and Engineering, National Academy Press, 1997

<http://www.nap.edu/readingroom/books/mentor/>

Finding an Academic Job (Surviving Graduate School) by Karen M. Sowers-Hoag, Dianne F. Harrison

<http://www.amazon.com/gp/product/0761904018>

Journey to the Ph.D., How to Navigate the Process as African Americans, Edited by Anna L. Green, and LeKita V. Scott, Stylus, 2003

<http://styluspub.com/Books/BookDetail.aspx?productID=74187>

The Latina/o Pathway to the Ph.D., Edited by Jeanett Castellanos, Alberta M. Gloria, and Mark Kamimura, Stylus, 2006

<http://styluspub.com/Books/BookDetail.aspx?productID=92526>

The Sista' Network, African-American Women Faculty Successfully Negotiating the Road to Tenure, by Tuesday L. Cooper, Anker, 2006

<https://secure.aidcvt.com/ank/ProdDetails.asp?ID=9781882982929>