

## Learning Assistant Pedagogy Seminar (SCED 2330)

Spring 2022  
Thursdays, 12:30-2:30 PM

Instructor	Lead LAs
Dr. Heather Johnson Office hours: Thursdays, 2:30-3:30pm	Melissa Goldin  Kolapo Dairo

### Course Overview

The course is designed for students serving as Learning Assistants in various introductory and intermediate STEM and psychology courses. This course will use our experiences in the classroom to refine our theories of education and teaching practice. We will touch on ideas central to facilitating learning such as issues of conceptual development, questioning strategies, collaborative learning and students' conceptions of various topics in STEM areas. This is a seminar course where you are responsible for weekly readings, in-class discussions, and assignments that are coordinated with your field experiences.

This course is intended to help you:

- Learn about how people construct knowledge in STEM areas
- Develop as a listener and facilitator in STEM discussions
- Reflect on your own pedagogical practice
- Consider issues of culture and equity in STEM learning environments
- Build community and relationships among undergraduate students in the STEM lectures

### Course Assignments

#### Preparation and Participation (20%)

##### *In-Class Participation (10%)*

Each week you will be expected to come to class having read the assigned papers and ready to discuss your questions, curiosities, arguments, and connections. You are also expected to actively engage in all other course activities, including whole-class discussions, small-group collaborations, and individual work.

Attendance and participation are important for your learning in this course, however we also recognize that there is immense uncertainty around the global COVID-19 pandemic. **We do NOT want you to come to class sick.** If you're not feeling well, we will record class sessions and help you find other ways to engage in class discussions safely. We also are willing to work with you individually around due dates and participation, but **please email us before class meetings and due dates.**

##### *Weekly Preparation (10%)*

You may be asked to complete short assignments to prepare for class sessions, such as adding to a jamboard, drafting a list of questions you asked during a discussion, or showing examples of student work from your session. Completing these assignments is a critical part of your course preparation. These assignments may not be noted on the syllabus, as they will be determined week-to-week, based on what happens in the class sessions and how we discuss the readings. You will find these preparation assignments on Brightspace and these will be graded for completion.

### **Readings (20%)**

Each week you will engage with readings that address current ideas about STEM education and introduce approaches to teaching STEM. These readings will inform your pedagogical development this semester.

This semester, we will be using an online annotation tool, Perusall, that will allow our learning community to read and start a conversation about weekly topics with one another prior to class. This is an intellectually safe space where we can share our ideas, questions and comments while reading the required texts. Each article will be uploaded to the Perusall, which you can access through Brightspace. **Your annotations/comments and/or responses need to be completed by 9 AM on Thursday before class.**

### **Field Notes (20%)**

To help you reflect on your teaching--and to help us support your teaching, you'll be asked to write field notes (2-3 pages) describing and analyzing your experiences as a Learning Assistant. You will recall a moment in which you were interacting with students in class, first providing a detailed description of what took place and then writing some analysis and reflection, connecting to our readings and class discussions.

*Key dates:*

Field note #1: 1/27

Field note #2: 3/3

Field note #3: 4/14

### **Student Thinking Interviews (20%)**

Given that effective teaching depends on learning what students already know and building on productive beginnings in their thinking, conducting student thinking interviews will help you practice important skills for teaching. You will be asked to conduct interviews with different students to explore their thinking about some of the topics you will be teaching. You will videorecord two interviews (with the student's permission!) to share and get feedback from other LAs. We'll then ask you to write an analysis and reflection.

*Key dates:*

Upload interview #1: 2/10

Interview #1 reflection: 2/24

Upload interview #2: 3/24

Interview #2 reflection: 4/14

### **Final Reflection (20%)**

At the end of the semester, you will reflect on your growth in your understanding of teaching and learning. The purpose of this project is to apply and synthesize what you've learned about

teaching and learning, drawing on course readings and your teaching experiences. Your field notes will be helpful to look back on as you do this final reflection. Details about this will be discussed in class. At our final class session, you will share your in-progress work on this final reflection: a poster, a videoclip, a podcast, a representation, etc.

*Key dates:*

Final reflection proposal: 3/31

Share in-progress reflection: 4/21

Final reflection due: 4/28

### **Grading**

Your grade in the course will be based on how I see you engaging with the content and with others in written work and class participation. A high grade will reflect that you were taking your own and others' thinking seriously, that you were building and refining ideas about learning and teaching. Each category of course assignments will contribute to your final grade.

### **Style and Format of Written Work**

All written work should be submitted through Brightspace *in a .doc or docx file (not .pdf or google doc!)* It should be double-spaced in Times New Roman, and have 12-point font.

### **Classroom Health and Safety**

Our mutual commitment to health and safety is vital. Toward that end, all students are expected to adhere to Vanderbilt Health and Safety protocols. Guidance may be updated throughout the semester.

### **Vanderbilt Honor Code**

All work submitted in this course is governed by provisions of the Vanderbilt University Honor Code, found in the student handbook: [https://www.vanderbilt.edu/student\\_handbook/the-honor-system/](https://www.vanderbilt.edu/student_handbook/the-honor-system/). If you have any doubts about how the Honor Code applies to your work in this class, please ask us for clarification. Uncertainty about application of the Honor Code does not excuse a violation.

### **Classroom Accommodations**

Vanderbilt is committed to equal opportunity for students with disabilities, as are we. If you need course accommodations due to a disability, please contact VU Student Access Services (<https://www.vanderbilt.edu/student-access/>) to initiate the process. After SAS has notified me of relevant accommodations, I will discuss how these accommodations may best be approached in this class, and we will facilitate the accommodations. *Note: I recognize that the process of obtaining formal accommodations can sometimes be lengthy. Please feel free to approach me if that is the case and I am happy to figure out an intermediate plan. I want you to feel supported!*

### **Mandatory Reporter Obligations**

All University faculty and administrators are mandatory reporters. What this means is that all faculty, including myself, must report allegations of sexual misconduct and intimate partner violence to the Title IX Coordinator. In addition, all faculty are obligated to report any allegations of discrimination. I am willing to discuss with you such incidents but can only do so in the context of us understanding our reporting obligations. If you want to talk with someone in confidence, officials in the Student Health Center, the University Counseling Center, and the Office of the Chaplain and Religious Life (when acting as clergy) can maintain confidentiality. In addition, officials in the [Project Safe Center](#) have limited confidentiality, in that they must report

the incidents but can do so without providing identifying information. The Project Safe Center serves as the central resource for those impacted by sexual misconduct and intimate partner violence and can assist with navigating all facets of the University's resource and support network and other processes.

### Mental Health & Wellness

If you are experiencing undue stress that may be interfering with your ability to perform academically, Vanderbilt's Student Care Network offers a range of support services. The Office of Student Care Coordination (OSCC) is the central and first point of contact to help you navigate and connect to appropriate resources. You can schedule an appointment with the OSCC at <https://www.vanderbilt.edu/carecoordination/> or call 615-343-WELL. You can find a calendar of services at <https://www.vanderbilt.edu/studentcarenetwork/satellite-services/>.

If you or someone you know needs to speak with a professional counselor immediately, the University Counseling Center offers Urgent Care Counseling. Students should call the UCC at (615) 322-2571 during office hours to speak with an urgent care clinician. You can also reach an on-call counselor after hours or on the weekends by calling (615) 322-2571 and pressing option 2 at any time. You can find additional information at <https://www.vanderbilt.edu/ucc/>.

### Names and Pronouns

If you would like to use a different name or pronouns than those provided through YES, please let me know at any time prior to or during the semester. Information is available through the LGBTQI Life offices about how to change either or both of these in YES.

### Course Schedule for SCED 2330

Date	Topic	Reading(s)	Assignment(s) Due
1/13	First Day Orientation		
1/20	Talk Moves	Michaels, S., & O'Connor, C. (2012). Talk Science Primer. TERC: Cambridge, MA.	Introductory Letter
1/27	Group Work/ Talk Moves 2	Groupwork: Designing for Student Participation & Twitter thread  <i>NOTE: Mandatory reporter training in class</i>	Field Note #1
2/3	Interviewing	Russ, R. S., & Sherin, M. G. (2013). Using interviews to explore student ideas in science. <i>Science Scope</i> , 36(5), 19.	
2/10	Representations	Wu, H. K., & Puntambekar, S. (2012). Pedagogical affordances of multiple external representations in scientific processes. <i>Journal of Science Education and Technology</i> , 21(6), 754-767.	Upload interview #1 to GoReact

2/17	Recognizing Productive Beginnings	Levin, D., Hammer, D., & Elby, A. (2012). <i>Becoming a responsive science teacher: Focusing on student thinking in secondary science.</i> NSTA Press, 15-42.	Interview Video Club (comment on clips from peers in video club group)
2/24	Inclusivity	Killpack, T. L., & Melón, L. C. (2016). Toward inclusive STEM classrooms: what personal role do faculty play? <i>CBE—Life Sciences Education</i> , 15(3).	Interview #1 Reflection
3/3	Gender & Race in STEM	McGee, E. O. (2021). The Stress of Success for the Underrepresented and Minoritized in STEM. <i>Black, brown, bruised: How racialized STEM education stifles innovation.</i> Harvard Education Press. p. 53-74.	Field Note #2
3/10	<b>Spring Break – No Class Session</b>		
3/17	Belonging and Proudness	Little, A. (2015). Proudness: What is it? Why is it Important? And How Do We Design for It in College Physics and Astronomy Education? <i>STATUS: A Report on Women in Astronomy</i> , Newsletter published by the American Astronomical Society, June 2015.	
3/24	Motivation	Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). What Factors Motivate Students to Learn? How learning works: Seven research-based principles for smart teaching. John Wiley & Sons.	Upload Interview #2 to GoReact
3/31	Ed Research Spotlight	Taylor McNeill visiting – reading TBD	Final Reflection Proposal
4/7	Epistemology	Hammer, D. (1989). Two approaches to learning physics. <i>The Physics Teacher</i> , 27(9), 664-670.	Interview #2 Video Club (Comments on video from peers in group for video club)
4/14	Metacognition	Tanner, K. D. (2012). Promoting student metacognition. <i>CBE—Life Sciences Education</i> , 11(2), 113-120.	Interview #2 Reflection/ Field Note #3
4/21	Final Reflection-in-Progress Presentations		
4/28	<b>NO CLASS SESSION – Final Reflection Due</b>		

*Please remember that this course and syllabus are a work in progress. I reserve the right to alter assignments, deadlines, readings, etc., as needed to meet the needs of the class.*