EOL 585 **COLLEGE TEACHING AND ACADEMIC CAREERS** **Spring 2009**
TENTATIVE

ATMS 563 **TEACHING AND HIGHER EDUCATION IN EARTH AND ENVIRONMENTAL SCIENCES**

Instructors

Donna Charlevoix, *Department of Atmospheric Sciences*
Office: 111 Atmospheric Sciences Bldg., 105 S. Gregory, Urbana. Telephone: 244-9575.
E-mail: charlevo@illinois.edu. Office hours: Thursdays 10:30 a.m. to noon, and by appointment
Michael C. Loui, *Department of Electrical and Computer Engineering*
Office: 212 Coordinated Science Lab, 1308 W. Main, Urbana. Telephone: 333-2595.
E-mail: loui@illinois.edu. Office hours: Mondays, 8:30 to 10:00 a.m., and by appointment

Course Web Site (Compass): http://compass.uiuc.edu
Set your Web browser to accept pop-up windows from compass.uiuc.edu

Classes: Tuesdays, 3:00 to 6:00 p.m., Room 428 Armory.
Note that the ending time in the Class Schedules is incorrect.

Credit: 4 graduate hours

Prerequisite: Completion of a campus or departmental orientation for teaching assistants

Course Overview/Themes/Objectives

This course will prepare you for the teaching duties of faculty members, in the context of academic careers. The course will take a scholarly approach: recommended teaching practices are based on the research literature on college teaching and learning. The course will emphasize reflection in connecting the readings with personal experiences. The instructors will try to model good professional practices. Through assignments and classroom discussions, you will learn to

- Use individual differences in student populations and models of student motivation and development to analyze classroom practices, to explain student learning, and to plan courses
- Implement a variety of instructional methods
- Design policies for course organization and classroom management
- Choose appropriate assessment and grading methods
- Create a personal statement of teaching goals, methods, and philosophy
- Explain the multiple responsibilities of faculty members
- Plan a scholarly investigation of teaching and learning in your discipline

Required Texts

- *EOL 585 Anthology*, Spring 2009, Available via IEEE Student Branch, 243 Everitt Lab.
- Kennedy, D. (1997). *Academic Duty*. Cambridge, Mass.: Harvard University Press.
- McKeachie, W., & Svinicki, M. (2006). *McKeachie's Teaching Tips*, 12th ed. Boston: Houghton Mifflin.
- Additional readings as assigned.

Class Sessions

Class sessions will include discussions of the readings, guest speakers, small group activities such as peer review of drafts of papers, and a few lectures. Most sessions will include "Teachers' Corner": students can ask questions about practical teaching problems, to which we can apply knowledge from the readings and assignments, and we can share our wisdom.

ASSIGNMENTS

Course assignments will help you achieve the objectives of the course. Brief descriptions of the assignments follow. Detailed instructions will be provided when each assignment is given. Unless otherwise specified, all written assignments must be submitted on paper (hard-copy).

Readings Reflections and Discussion

To prepare for the classroom discussions, you will write a minimum of eight short reflections on the readings for each week. Each reflection paper should take no longer than one hour to complete. In addition, you will collaborate with one or two other students to prepare and post a few questions on the readings for one week. Your group will then lead a 30-minute discussion of those readings. Expected length of each reflection paper: 1 to 2 pages.
Due in class weekly starting January 27 (13 assigned, up to 8 reflection papers count)

Classroom Observation

You will observe and analyze a class session in an undergraduate course led by an instructor in your discipline or in a closely related discipline. You should choose an instructor who has a good reputation for teaching and seek the instructor's permission to visit. You will submit a written report that analyzes the class session in light of the EOL 585 readings. Expected length: 4 to 8 pages.
Assigned January 27, Draft due February 9 in Compass, Final version due February 17

Syllabus Project

You will take the topics from a syllabus of an existing undergraduate course and write the remainder of the syllabus, including the course policies and requirements. You will write an essay that explains the rationales for the course goals and organization, the assignments and assessments, and the course policies. Expected length: 5 to 8 pages for the essay, plus the revised syllabus.
Assigned February 17, Optional draft due March 9 in Compass, Final version due March 17 in class

Teaching Statement

You will identify your general teaching goals, describe the methods you use to achieve your goals, and express the principles and values that inform your teaching. Your teaching statement can be used for a teaching portfolio or a job application. Expected length: 2 to 4 pages.
Assigned March 31, Optional draft due April 6 in Compass, Final version due April 14 in class

Final Project

You will write either an extensive literature review or a proposal for a classroom research project. The extensive literature review will acquaint you with research on teaching and learning

in your discipline: you will critically analyze research articles on a particular theme, such as cooperative learning in undergraduate engineering courses. The classroom research proposal will prepare you to become an active investigator into the scholarship of teaching and learning: you will formulate a question, justify the significance of the question, review related literature, and outline a plan to gather evidence that addresses the question. Expected length: 12 to 15 pages.

Assigned:	February 24
Question or Theme:	Due March 3
Bibliography:	Due March 31
Synopsis:	Due April 7
Full Draft:	Due April 17
Presentation:	Due April 21
Final Version:	Due April 28

Course Synthesis

At the end of the semester, you will examine the impact of the course topics and activities on your teaching and your plans for an academic career. Expected length: 3 to 5 pages. Assigned April 21, Due May 11.

Expected Time Commitment

The readings and assignments will require an average of about ten hours per week outside class sessions.

Grading

Readings reflections	80
Classroom observation	40
Syllabus project	60
Teaching statement	40
Final project	100
Course synthesis	40
Total	360

Course grades will be assigned on a criterion-reference scale as follows; minimum totals for grades may be lowered, but they will not be raised:

A: 336 to 360	A–: 324 to 335	B+: 312 to 323	B: 300 to 311
B–: 288 to 299	C+: 276 to 287	C: 264 to 275	C–: 252 to 263

COURSE POLICIES

This course will follow all policies in the *Student Code* (http://www.admin.uiuc.edu/policy/code/index.html).

Class Discussion

This course is designed for true dialogue, which involves the honest exchange of experiences, ideas, and feelings, for the benefit all students and instructors. Because true dialogue can involve personal exposure and the taking of risks, engaging in dialogues in this course will require that you listen respectfully to others, and that you demonstrate openness to

perspectives different from your own. You should expect the same respect from all others in the class. At the same time, questions, challenges, humor, and feedback are welcome.

Accommodations

If you require special accommodations, you should notify the instructors as soon as possible. In particular, you should contact the instructors if a religious practice or disability might interfere with the successful completion of a course requirement. All accommodations will follow the procedures as stated in Article 1-110 of the *Student Code* (http://www.admin.uiuc.edu/policy/code/article_1/a1_1-110.html).

Academic Integrity

This course will follow Articles 1-401 through 1-406 of the *Student Code* (beginning at http://www.admin.uiuc.edu/policy/code/article_1/a1_1-401.html). This rule defines infractions of academic integrity, which include but are not limited to cheating, fabrication, and plagiarism. You are responsible for following these guidelines. If you have any questions about whether something would be an infraction, please consult with the instructors before proceeding.

Late Submission Policy

You are expected to submit assignments on the due dates. Because graduate students have many important responsibilities outside this course, there are no penalties for submitting assignments late, with the exception of the readings reflections and the final project. You should use this late submission policy only when warranted, and you should tell at least one course instructor about your intention to submit late. You should submit all late assignments by the final class meeting on May 5.

Snack Break

A snack break will be part of each class to give students and instructors a chance to interact informally, and to refuel for the second half of class. You should sign up for a date to bring food. You would bring one small treat such as cookies, cheese and crackers, bread and dip, veggie plate, or chips. You are responsible for bringing your own drinks to class. The instructors will provide napkins and plates.

COURSE SCHEDULE

Each asterisk (*) denotes a required reading. Other readings are recommended. Strongly recommended readings for ATMS 563 are denotes with #.

January 20 Introductions, syllabus, history of higher education, scholarship of teaching

McKeachie

* Introduction, 1–8.

Anthology

* Chickering, A., & Gamson, Z. (1991). Seven principles for good practice in undergraduate education. *New Directions for Teaching and Learning*, *47*, 63–69, 76–83.

Theall, M. (1999). New directions for theory and research on teaching: a review of the past twenty years. *New Directions for Teaching and Learning, 80*, 29–52.

Boyer, E. (1990). *Scholarship reconsidered: priorities of the professoriate,* Princeton, N.J.: Carnegie Foundation for the Advancement of Teaching, 1–25.

Barr, R., & Tagg, J. (1995). From teaching to learning: a new paradigm for undergraduate education. *Change, 27* (6), 12–25.

* Millis, B. (1992). Conducting effective peer classroom observations. *To Improve the Academy, 11,* 189–201 + Sample Observation Forms.

January 27 Research basis for teaching, motivation, models of intellectual development

McKeachie

* Motivation in the college classroom, 140–150.

Anthology

* Svinicki, M. (1999). New directions in learning and motivation. *New Directions for Teaching and Learning, 80*, 5–27.
* Halpern, D. (2004). *Using principles of cognitive science and learning theories to enhance learning and teaching*. http://www.pkal.org/template2.cfm?c_id=993.
* Forsyth, D., & McMillan, J. (1991). Practical proposals for motivating students. *New Directions for Teaching and Learning, 45*, 53–65.
* Bransford, J. Brown, A. & Cocking, R. (Eds). (2000). *How people learn: brain, mind, experience and school: expanded edition*. Washington, D.C.: National Academy Press, 51–78.
* Kloss, R. (1994). A nudge is best: helping students through the Perry scheme of intellectual development. *College Teaching, 42* (4), 151–154.

Recommended Reading in Compass

Felder, R. M., & Brent, R. (2004). The intellectual development of science and engineering students, part 1: models and challenges. *Journal of Engineering Education,* 93 (4), 269–277.

February 3 Instructional methods: lecturing, active learning, educational technologies and online learning

McKeachie

* How to make lectures more effective, 57–73.
* Reading as active learning, 30–34.
* Teaching thinking, 318–324.
* Teaching large classes, 254–265.
* Technology and teaching, 229–253.

Anthology

* DeWinstanley, P., & Bjork, R. (2002). Successful lecturing: presenting information in ways that engage effective processing. *New Directions for Teaching and Learning, 89,* 19–31.
* Prince, M. (2004). Does active learning work? a review of the research. *Journal of Engineering Education, 93* (3), 223–231.

Required Reading in Compass

* Bangert, A. W. (2004). The seven principles of good practice: a framework for evaluating on-line teaching. *The Internet and Higher Education, 7,* 217–232.

Recommended Readings in Compass

Felder, R., & Brent, R. (1996). Navigating the bumpy road to student-centered instruction. *College Teaching, 44* (2), 43–47. Also http://www.ncsu.edu/felder-public/Papers/Resist.html

Moore, A. H., Fowler, S. B. & Watson, C. (2007). Active learning and technology: Designing change for faculty, students, and institutions. *Educause Review*, September/October, 43–60.

McGee, P., & Diaz, V. (2007). Wikis and podcasts and blogs! Oh My! What is a faculty member supposed to do? *Educause Review*, September/October, 28–40.

Woo, Y., & Reeves, T. C. (2007). Meaningful interaction in web-based learning: A social constructivist interpretation. *The Internet and Education, 10,* 15–25.

February 10 Instructional methods: discussion, case studies, problem-based learning
Draft of Classroom Observation paper due (February 9 in Compass)

McKeachie

* Facilitating discussion: posing problems, listening, questioning, 35–56.
* How to enhance learning by using high-stakes and low-stakes writing, 192–212.
* Problem-based learning: teaching with cases, simulations, and games, 221–228.
* Laboratory instruction: ensuring an active learning experience, 266–277.
* The teacher's role in experiential learning, 278–287.

Anthology

* Frederick, P. (1981). The dreaded discussion: ten ways to start. *Improving College and University Teaching, 29* (3), 109–114.
* Kunselman, J., & Johnson, K. (2004). Using the case method to facilitate learning. *College Teaching, 52* (3), 87–92.
* Weimer, M. (1987). Research focus: professors part of the problem? *Teaching Professor, 1* (7), 3–4.
* Hyman, R. (1982). Questioning in the college classroom. *IDEA Paper No. 8, Kansas State University Center for Faculty Evaluation and Development.*

February 17 Designing a course, grading
Classroom Observation paper due

* Teaching Goals Inventory, http://centeach.uiowa.edu/tools.shtml

McKeachie

* Countdown for course preparation, 9–20.
* Assessing, testing, and evaluating, 74–86.
* Testing: the details, 87–104.
* Tests from the student perspective, 105–112.
* The ABC's of assigning grades, 123–138.

Anthology

* Angelo, T. & Cross, K. (1993). The teaching goals inventory, *Classroom assessment techniques: 2nd edition.* San Francisco: Jossey-Bass, 13–23.
* Krathwohl, D. (2002). A revision of Bloom's taxonomy: an overview. *Theory Into Practice, 41* (4), 212–218.
* Parkes, J., & Harris, M. (2002). The purpose of a syllabus. *College Teaching, 50* (2), 55–61.

Ory, J. (2003). The final exam, *American Psychological Society, 16* (10), 23–24 and 34–35.

Wiggins, G., and McTighe, J. (1998). Thinking like an assessor. *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development, 63–84.

Parkes, J., Fix, T., & Harris, M. (2003). What syllabi communicate about assessment in college classrooms. *Journal on Excellence in College Teaching, 14* (1), 61–83.

* Stevens, D., & Levi, A. (2005). *Introduction to rubrics.* Sterling, VA: Stylus, 3–28.

Recommended Reading in Compass

Garavalia, L. S., Hummel, J. H., Wiley, L. P., & Huitt, W. G. (1999). Constructing the course syllabus: faculty and student perceptions of important syllabus components. *Journal on Excellence in College Teaching, 10* (1), 5–21.

February 24 Classroom assessment, classroom research, scholarship of teaching and learning

Anthology

* Bass, R. (1999). The scholarship of teaching: what's the problem? *Inventio, 1 (1).* http://www.doiiit.gmu.edu/Archives/feb98/rbass.htm
* Savory, P., Burnett, A. N, & Goodburn, A. (2007). A guide for scholarly inquiry into teaching. In *Inquiry into the college classroom: a journey toward scholarly teaching*, Bolton, Mass.: Anker, 1–29.

Hutchings, P. (2000). Approaching the scholarship of teaching and learning. *Opening Lines: Approaches to the Scholarship of Teaching and Learning*, Hutching, P., (Ed), Menlo Park, CA: Carnegie Foundation for the Advancement of Teaching.

* Greene, L. (2005). Questioning questions. *The National Teaching and Learning Forum, 14* (2), 1–5.
* Olds, B. M., Moskal, B. M., & Miller, R. L. (2005). Assessment in engineering education: evolution, approaches and future collaborations. *Journal of Engineering Education, 94* (1), 13–25.

March 3 Classroom management, academic integrity
Final Project question/theme due

McKeachie

* Meeting a class for the first time, 21–28.
* What to do about cheating, 113–122.
* Problem students, 172–190.

Anthology

* Billson, J., & Tiberius, R. (1991). Effective social arrangements for teaching and learning. *New Directions for Teaching and Learning, 45*, 87–109.
* Chapman, K., Davis, R., Troy, D., & Wright, L. (2004). Academic integrity in the business school environment: I'll get by with a little help from my friends. *Journal of Marketing Education, 26* (3), 236–249.
* Boice, R. (1996). Classroom incivilities. *Research in Higher Education, 37* (4), 453–486.
* Alexander-Snow, M. (2004). Dynamics of gender, ethnicity, and race in understanding classroom incivility. *New Directions for Teaching and Learning, 99*, 21–31.
* Kuhlenschmidt, S., & Layne, L. (1999). Strategies for dealing with difficult behavior. *New Directions for Teaching and Learning, 77*, 45–57.

March 10 Collaborative, cooperative, and team learning
Draft of Syllabus Project due (optional)

McKeachie
* Active learning, cooperative, collaborative, and peer learning, 213–220.

Anthology
* Cooper, J., Robinson, P., McKinney, M. Cooperative Learning in the Classroom. http://www.csudh.edu/SOE/cl_network?WhatisCL.html, Retrieved June 28, 2005.
* Colbeck, C., Campbell, S., & Bjorklund, S. (2000). Grouping in the dark. *The Journal of Higher Education*, 71 (1), 60–83.
* Felder, R. M., & Brent, R. (1994). *Cooperative learning in technical courses: procedures, pitfalls, and payoffs.* ERIC Document Reproduction Service Report ED 377038. Also http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/Coopreport.html

March 17 Student individual differences, valuing diversity, controversial issues
Syllabus Project due

McKeachie
* Teaching culturally diverse students, 151–171.
* Teaching students how to become more strategic and self-regulated learners, 300–317.

Anthology
* Grow, G. (1991). Teaching learners to be self-directed, *Adult Education Quarterly, 41* (3), 125–149. http://www.longleaf.net/ggrow/SSDL/SSDLIndex.html
* Clinchy, B. (1990). Issues of gender in teaching and learning. *Journal on Excellence in College Teaching, 1*, 52–67.

March 24 Spring Break

March 31 Developing a professional dossier
Final Project bibliography due

Anthology

* Brookfield, S. (1995). What it means to be a critically reflective teacher, *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass, 1–27.
* Edgerton, R., Hutchings, P., & Quinlan, K. (1995). *The teaching portfolio: capturing the scholarship in teaching*. Washington, D.C.: American Association for Higher Education, 1–11.

Kennedy
* Academic freedom, academic duty, 1–23.
* Preparing, 23–58.

April 7 Student ratings of teaching, ethics in teaching
Final Project synopsis due
Draft of Teaching Statement due (optional)

McKeachie
* The ethics of teaching and the teaching of ethics, 325–343.
* Vitality and growth throughout your teaching career, 344–359.

Anthology
* Lowman, J. (1995). What constitutes exemplary teaching? *Mastering the techniques of teaching, 2nd ed.* San Francisco: Jossey-Bass, 1–37.
* Ory, J. (2003). Faculty thoughts and concerns about student ratings. *New Directions for Teaching and Learning*, *87*, 3–15.
* Marsh, H., & Roche, L. (1997). Making students' evaluations of teaching effectiveness effective. *American Psychologist*, *52* (11), 1187–1197.

Recommended Reading in Compass
Gregory, M. (2004). Pedagogical disjunctions, or, if I say I want my students to be mainly learning X, why do I think mostly about teaching Y? *Journal of Cognitive Affective Learning*, 1 (1), 2–10. Also http://www.jcal.emory.edu/viewarticle.php?id=27&layout=html

April 14 The faculty role: teaching and responsibilities outside the classroom
Teaching Statement due

Kennedy
* To teach, 59–96.
* To mentor, 97–116.
* To serve the university, 117–146.

Anthology
* Kramer, G. (2000). Advising students at different educational levels. In *Academic advising: a comprehensive handbook*, Gordon, V. & Habley, W. (Eds.), San Francisco: Jossey-Bass, 84–104.
* Finkelstein, M. J. (2001). Understanding the American academic profession. In *In defense of american higher education*, Altbach, P. G., Gumport, P. J., & Johnstone, D. B. (Eds.), Baltimore, Md.: Johns Hopkins University Press, 323–351.

[#] Solem, M.N., & Foote, K.E. (2006). Concerns, attitudes, and abilities of early-career Geography faculty. *Journal of Geography in Higher Education, 20*(2), 199-234.

April 21 **The faculty role: tenure and promotion**
Draft of Final Project due (April 17 in Compass)

Kennedy
* To discover, 147–185.
* To publish, 186–209.

* Communication 9: Promotion and tenure
http://www.provost.uiuc.edu/communication/09/index.html
* Finkin, M. W. (2007). The tenure system. In *The academic's handbook*, 3rd ed., Deneef, A. L., & Craufurd, D. G. (Eds.), Durham, N. Car.: Duke University Press, 155–167.

April 28 **Presentations of Final Projects**

May 5 **Future of college teaching, course and instructor evaluations**
Final Project paper due

McKeachie
* Teaching by distance education, 288–297.

Kennedy
* To tell the truth, 210–240.
* To reach beyond the wall, 241–264.
* To change, 265–288.

May 11 **Finals Week**
Course Synthesis due