FLORIDA ATLANTIC UNIVERSITY
Charles E. Schmidt College of Science
Enviromental Sciences Program

Proposed One-Credit Course

ENV 6920 Enviromental Sciences Colloquium Series

Instructor:

Dr. Dale Gawlik
Associate Professor
Department of Biological Sciences; Florida Atlantic University
Office: 271 Sanson Science Bldg.
Tel: 561-297-33333
Email: dgawlik@fau.edu

Course objectives: ENV6920 is designed to provide graduate students with knowledge of current research in the multidisciplinary field of environmental science.

Students will:

Develop connections with the university community and other research professionals in the field of Environmental Science.

Gain knowledge of current research and professional literature in Environmental Science.

Gain practical skill in written and oral communication through student presentations, class discussions and critical writing assignments.

Approach: The course is organized around a series of colloquia presented by FAU faculty, environmental science professionals from outside FAU, and advanced graduate students. Students will be actively engaged in critical and systematic thinking about current research in the multidisciplinary field of environmental science. Assigned reading will help students to expand their knowledge of the professional literature, and they will gain practical experience in written and oral communication through class discussion, writing assignments and student presentations.

Strategy: Collaborative learning – the instructor and students share responsibility for the learning process. As part of this strategy, student participation in group discussion and activities is required.

Prerequisite: none.

Course's Structure & Policies: the weekly one-hour classes are comprised of a biweekly colloquium series with meetings/lectures in between to discuss the research presented in the previous week as well as written and oral exercises designed to teach students about developing research questions, building solid arguments, etc.

Obligations: student tasks include:

1. **Written reports on the colloquium talks**: A one-page report is required for each colloquium talk. Students will use critical/systematic thinking to answer the following questions:
    - ❖ What is the main research question?

- ❖ What method was used to answer the research question, and what evidence did the speaker present to support the conclusions?
- ❖ What are the implications and practical applications of the research findings for issues in the environmental sciences?
- ❖ What additional questions would you like to ask the speaker?
- ❖ What were the strengths and weaknesses of the speaker's presentation?

2. **Short presentation on a specific research topic**: each student will prepare a short talk on a topic in environmental science chosen by the student and approved by the instructor.
3. **Class assignments/activities**: students will demonstrate systematic thinking and critical thinking through in-class discussions and activities.
4. **Class participation**: students will attend all sessions and actively participate in class and group discussion.

Academic integrity: Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Following the FAU Honor Code, all students should act with personal integrity, respect dignity, rights and property of others, and help create and maintain an environment in which all can succeed through the fruits of their efforts. This course adopts the FAU Academic Policies and Procedures which can be found in the University Catalog or online at http://www.fau.edu/academic/registrar/09-10_catalog/academics.html.

Course requirements: There is no required textbook. Assigned readings will be available through the FAU library system. Course materials such as syllabi, schedules, announcements, lecture notes, class assignments, and multimedia resources will be made available to students through the Blackboard system.

Grading Scale: There grading system for this course will be S (satisfactory)/U (unsatisfactory). A student who completes each of the obligations of the course at or above a satisfactory level as determined by the instructors will receive a grade of S. Satisfaction of each obligation is defined as follows:

- ❖ **Reports on the colloquium talks**: all reports must demonstrate an understanding of the research methods, the evidence presented, and the arguments used to support the conclusions.
- ❖ **Short presentation on a specific research topic**: the presentation must demonstrate a clear grasp of the concepts of a research question and logical arguments.
- ❖ **Class assignments/activities**: students must participate in all class assignments and activities.
- ❖ **Class discussion participation**: students must attend class meetings and participate regularly in class discussions.

A grade of I (incomplete) will only be given for the reasons and under the conditions specified in the FAU catalog.

Class Schedule

Weeks	Topics
1	Introduction to course and to critical/systematic thinking
2	Colloquium talk #1
3	Critical/systematic thinking discussion #1
4	Colloquium talk #2
5	Critical/systematic thinking discussion #2
6	Colloquium talk #3
7	Critical/systematic thinking discussion #1
8	Colloquium talk #4
9	Critical/systematic thinking discussion #2
10	Colloquium talk #5
11	Critical/systematic thinking in practice
12	Colloquium talk #6
13	Critical/systematic thinking in practice
14	Colloquium talk #7
15	Student presentations
16	Student presentations

Bibliography

Fasko Jr., Daniel (ed.) 2003. Critical Thinking and Reasoning: Current Research, Theory, and Practice. Cresskill, N.J.: Hampton Press.

Thayer-Bacon, Barbara J. 2000. Transforming Critical Thinking: Thinking Constructively. New York: Teachers College Press, Columbia University.

Ruggiero, Vincent Ryan. 1998. The Art of Thinking: a Guide to Critical and Creative Thought (5th ed.). New York: Longman.

Goodchild, Michael F., and Janelle, Donald G.. 2004. Spatially Integrated Social Science. New York: Oxford University Press.

Pidd, Michael. 2004. Systems Modeling: Theory and Practice. Hoboken, NJ : John Wiley & Sons.