ENS 6838.01
Research Project and Seminar in Environmental Science
Spring 2011

Class meetings: Thursdays, 7:00 – 9:50 pm, SSB 3302
Instructor: Dr. Cindy Howard
Office: Bayou Building, Faculty Suite 3525
Telephone: (281) 283-3745 (please leave a message if you don’t get an answer)
E-mail: howardc@uhcl.edu (best way to contact me)
Office hours: Mon and Wed 3-5pm; Thu 4-6pm; other times by appointment
Webpage: http://sce.uhcl.edu/howard/

Course text options and materials

PowerPoint slides for each lecture, as well as practice problems and other course information will be available at least one day before each class session in the course Blackboard shell (accessible online through WebCT) or at http://sce.uhcl.edu/howard under Courses: ENSC 6838.

Prerequisites
Completion of STAT 5135 and ENSC 5530; project proposal from ENSC 5530 and approval of project advisor. Students are strongly advised to delay registering for this course until their research completed or is in its final stages.

Objectives and learning outcomes
This course is the capstone course for graduate students in environmental science who are pursuing the project (non-thesis) option for the M.S. degree. During this course, students will complete the research on their respective projects, analyze their data, write their results in an accepted journal article style, and make two presentations of their research: poster and oral. Students should consult with their advisors about also participating in the UHCL Student Conference on Research and the Creative Arts, which will be held on campus April 20-22, 2011. Information and application forms for the conference can be found on the conference website: http://prtl.uhcl.edu/portal/page/portal/HSH/HOME/Student_Conference. Abstracts are due by March 7, 2011.

Methodology
Class discussions on research progress; individual advisement on report writing and oral/poster presentation preparation; journal-style formal research reports; poster and oral presentations of research.

Evaluation
The assignments lead to the completion of the research project report. All assignments will be graded and available for return to the student at the class meeting time following the class period in which they were due. When turned in, each assignment must show the student’s name, assignment number and date of submission.
Grades on assignments #3, 4 and 5 (only) may be increased upon satisfactory editing following the instructor’s comments. The due dates for edited assignments will be the class period one week after their return to the student. Edited assignments and other designated work may be submitted by e-mail.

Students are expected to turn in assignments and make their presentations on the scheduled dates. **If Assignment #1 is turned in late, it will be checked but will not be given credit. Other assignments and final proposals turned in late will be assessed a 10% grade penalty per week late, beginning the day following the due date.** In general, incomplete grades are not an option in this course.

**Grading algorithm**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment #1 (Proposal; changes, semester plan)</td>
<td>5%</td>
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<tr>
<td>Assignment #2 (Draft Introduction and Methods)</td>
<td>5%</td>
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<tr>
<td>Assignment #3 (Draft Results)</td>
<td>10%</td>
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<tr>
<td>Assignment #4 (Draft Discussion)</td>
<td>10%</td>
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<tr>
<td>Assignment #5 (Draft Final Project Report)</td>
<td>10%</td>
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<tr>
<td>Assignment #6 (Poster and presentation)</td>
<td>10%</td>
</tr>
<tr>
<td>Assignment #7 (Final Project Report)</td>
<td>40%</td>
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<tr>
<td>Oral presentation</td>
<td>10%</td>
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</tbody>
</table>

Grading scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92-100%</td>
</tr>
<tr>
<td>A-</td>
<td>88-92%</td>
</tr>
<tr>
<td>B+</td>
<td>86-87%</td>
</tr>
<tr>
<td>B</td>
<td>80-85%</td>
</tr>
<tr>
<td>B-</td>
<td>78-79%</td>
</tr>
<tr>
<td>C+</td>
<td>76-77%</td>
</tr>
<tr>
<td>C</td>
<td>70-75%</td>
</tr>
<tr>
<td>C-</td>
<td>68-69%</td>
</tr>
<tr>
<td>D+</td>
<td>66-67%</td>
</tr>
<tr>
<td>D</td>
<td>60-65%</td>
</tr>
<tr>
<td>D-</td>
<td>58-59%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;58%</td>
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Standards for grades pertaining to graduate work (from UHCL catalog):

- Performance in the range of "A" represents exceptional scholarship and intellectual initiative in accomplishing graduate level course goals and objectives.
- Performance in the range of "B" represents competent achievement in accomplishing graduate level course goals and objectives.
- Performance in the range of "C" represents the minimally acceptable performance in accomplishing graduate level course goals and objectives.
- A "D" or "F" performance represents unsatisfactory or below minimally acceptable performance in accomplishing graduate level course goals and objectives.

**Class attendance**

Class attendance is strongly recommended. Handout materials will be available for students who miss class; however, the handouts represent outlines of lecture material and valuable information will be obtained by interacting on assignments with peers during class times. Students are encouraged to utilize advising periods with the course instructor; however, advising sessions are not required. Students must work closely with their research advisors throughout the semester as they complete their projects and prepare their project reports.

Information on university closures due to weather or other events can be obtained from the UHCL hotline (281-283-2221) or [http://www.uhclemergency.info/go/site/1522/](http://www.uhclemergency.info/go/site/1522/).

The course instructor will send messages to students during the semester regarding class schedule updates or changes, using the students’ university email accounts.
**Drop date**
The last date to drop this course without a grade penalty is **March 28, 2011**. Students should be fairly well along in their data analysis and report writing by this date if they intend to complete the course during this semester.

**Academic honesty**
Please carefully review the UHCL Academic Honesty Policy in the current UHCL catalog. Every student enrolled in this class is expected to abide by the UHCL Honesty Code, which states, “I will be honest in all my academic activities and will not tolerate dishonesty.” Your participation in this class constitutes your acceptance of the UHCL Academic Honesty Policy. Dishonesty of any kind (e.g., plagiarism, cheating on exams) is absolutely unacceptable in this course. All academic code violations will be reported to the Dean of Students and can result in a grade of “F” on an assignment or test, a grade of “F” in the course or suspension from the university (see catalog). Your written work may be checked for plagiarism at any time. For the full UHCL Academic Honesty Policy, please refer to http://prtl.uhcl.edu/portal/page/portal/PRV/FORMS_POLICY_PROCEDURES/STUDENT_POLICIES/Academic_Honesty_Policy.

**Special academic accommodations**
Students requiring special academic accommodations with regard to exams, etc. should contact the Disabilities Services Office at 281-283-2627 (http://prtl.uhcl.edu/portal/page/portal/UAO).

**Electronics**
Use of cell phones, pagers, PDAs, laptop / notebook computers or similar electronic devices is generally not permitted during class periods. Cell phones must be silenced or turned off and must be stored out of sight for the duration of the class period. Exceptions may be made on a per class period basis and must be cleared with the course instructor prior to the start of class.
**Course schedule (subject to revision); dates in bold font indicate formal class meetings**

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Assignment</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/20</td>
<td>Course introduction</td>
<td><strong>Assignment #1:</strong> Turn in copy of proposal from ENSC 5530; outline any changes that need to be made to the proposal; research progress report; semester plan for project completion</td>
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<tr>
<td>01/27</td>
<td>Collecting information and reference materials for the report</td>
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<tr>
<td>02/03</td>
<td>No class</td>
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<tr>
<td>02/10</td>
<td>Class presentations of topics and research questions, projects and status</td>
<td>Assignment #2: Complete draft Introduction and Methods sections; update and edit for project changes; include specific objectives</td>
<td>#1</td>
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<tr>
<td></td>
<td>Finding and reviewing scientific literature; extracting information; avoiding plagiarism; citing references; specific objectives and hypothesis</td>
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<tr>
<td>02/17</td>
<td>Individual advising (5-7pm)</td>
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<td>Library resources presentation; meet in UHCL Library (optional, but recommended)</td>
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<tr>
<td>02/24</td>
<td>Writing the Results section</td>
<td>Assignment #3: Write draft Results section</td>
<td>#2</td>
</tr>
<tr>
<td>03/03</td>
<td>Individual advising (5-7pm); Assignment #2 returned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03/10</td>
<td>Writing the Discussion section</td>
<td>Assignment #4: Write draft Discussion section</td>
<td>#3</td>
</tr>
<tr>
<td>03/17</td>
<td>No class: Spring Break</td>
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<tr>
<td>03/24</td>
<td>Putting the project paper together, making effective oral and poster presentations; Assignment #3 returned</td>
<td>Assignment #5: Write draft Project Report (all sections); must be reviewed and approved by project advisor before submitting</td>
<td>#4</td>
</tr>
<tr>
<td>03/31</td>
<td>Individual advising (5-9pm on sign-up sheet); Assignment #4 returned</td>
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<tr>
<td>04/07</td>
<td>Individual advising (5-9pm on sign-up sheet)</td>
<td>Assignment #6: Prepare research poster; must be reviewed and approved by project advisor before submitting</td>
<td>#5</td>
</tr>
<tr>
<td>04/14</td>
<td>Individual advising (5-9pm on sign-up sheet); Assignment #5 returned; Assignment #6 checked off</td>
<td>Assignment #7: Write final Project Report; must be reviewed and approved by project advisor before submitting</td>
<td>#6</td>
</tr>
<tr>
<td>04/21</td>
<td>Poster presentations at UHCL Student Conference for Research and the Creative Arts</td>
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</tr>
<tr>
<td>04/28</td>
<td>Oral presentations of research projects</td>
<td>Copies of PowerPoint presentation</td>
<td>#7</td>
</tr>
<tr>
<td>05/05</td>
<td>Oral presentations of research projects</td>
<td>Copies of PowerPoint presentation</td>
<td></td>
</tr>
</tbody>
</table>
ENSC 6838
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Guidelines for research involving humans or animals

If you are planning to conduct research that involves vertebrate animals or humans, you are required to include the appropriate application forms in your research proposal for ENSC 5530. You will subsequently be required to submit the application to the appropriate UHCL committee (e.g., IACUC [Institutional Animal Care and Use Committee] or CPHS [Committee for the Protection of Human Subjects]) and receive approval before beginning any work on your research project. IACUC and/or CPHS applications and approval documents must be included in the final research report submitted for ENSC 6838.

The required information and application forms can be found at the locations listed below.

For research involving vertebrate animals:
http://www.research.uh.edu/Online_Forms/index.html/editor/Admin_info.doc

For research involving human subjects:
http://prtl.uhcl.edu/portal/page/portal/OSP/PROTECTION%20OF%20HUMAN%20SUBJECTS

Please print out the appropriate forms, complete them and attach to your research proposal.
Proposal and Research Project Approval Form

Name: ____________________________________________________________

Semester: _____________________ Concentration area: ____________________

Proposal title: ______________________________________________________
__________________________________________________________________
__________________________________________________________________

Completed ENSC 5530 in what semester, year? __________________________

The student listed above has an approved research proposal and has made sufficient progress on his/her research to complete ENSC 6838 during the current semester.

Research Advisor: ________________________________________________

Approved: _______________________________________________________

(Advisor's signature)

Date: _____________________________________________________________