Course Syllabus
Science and Engineering First Year Seminar II, Spring 2013
Exploring Connections Between Science, Society, and Ourselves

Instructor: Mark McNamara
Email: Mark.McNamara@tamucc.edu
Office: Faculty Center 123
Phone: 361-825-3364
Office hours: M 3-4, T 1-2, W 3-4:30, TH 1:30-2, F 12-1 or by Appointment
Wiki Home page: http://falcon.tamucc.edu/wiki/MarkMcNamara/Home

Courses:
FIRST-YEAR SEMINAR II - 81182 - UCCP 1102 - 882- With Johnson M/W 12-12:50 OCNR- 131
FIRST-YEAR SEMINAR II - 81185 - UCCP 1102 - 884- With Johnson M/W 1-1:50 OCNR- 131

Course Description:
First Year Seminar II is a continued discovery of the skills necessary for your success as a university student in science and engineering and as a future professional. Acquisition of these skills is integrated into an exploration of the concepts encountered in your large lecture courses, BIOL 1407, CHEM 1312, and in ENGL 1302 composition course (as applicable). Seminar is a one credit hour discussion course where you learn to communicate verbally and work collaboratively on complex science topics and relate them to your role as a developing scientist. The focus of this semester is your professional development.

To achieve in science you will need 3 basic things:
- Expert science knowledge and critical thinking ability.
- Superb communication skills, specific to science discourse.
- The ability to get along with others and work as a team.

As a second semester university science student, you are expected to have already mastered most the basic skills needed to be successful in science at a university level. In this semester you will be challenged to go further in your career as a scientist. You will be challenged to build your professional resume, become a greater part of the local science community, and further develop your understanding of science by conducting a science investigation in a group of 4-6 individuals. This investigation will be the focus of combined work in seminar and composition (if you are taking composition) that will culminate in an oral multimedia presentation to be presented in class and at the First Year Student Research Conference, if you are chosen. By designing and conducting a science investigation and communicating your experience to your colleagues, you are learning how science knowledge is created and communicated.

This course will be taught through Blackboard. You are responsible for attending every class and participating online. This is a dynamic course. Check Blackboard often and never miss class if you wish to succeed.

Seminar Course Objectives:

The primary objectives of First Year Seminar are for students to:
- Explore the interconnections among the Triad/Tetrad courses;
- Develop critical thinking skills and significant learning;
- Clarify personal values, goals, and strengths
- Develop the ability to learn through study, discussion, writing, cooperation, and collaboration

Seminar Learning Outcomes:
- Students will apply interdisciplinary knowledge to address and analyze real-world issues
- Students will interpret and evaluate various research materials and/or perspectives

Science Learning Community Specific Learning Outcomes:
- Take personal responsibility and become a self-directed college learner.
- Effectively read and comprehend scientific articles, reports, and books.
- Evaluate the scientific accuracy of claims made in literature relating to science.
- Apply scientific principles to make decisions.
- Understand the scientific method.
- Understand the assumptions and limitations of science.
- Collaborate effectively as both an effective leader and follower.
- Communicate on controversial topics related to science.
- Relate science to other ways of knowing.
- Understand the nature of scientific research.
- Apply concepts of biology and chemistry to new situations.
- Understand the role and purpose of different forms of science literature.
- Effectively use library research tools to research on science topics.
- Communicate about science topics verbally, in writing, and via multimedia presentation.
- Understand and apply the conventions of science discourse.
- Get along with others.
- Develop awareness of one's present and future role in the science community.
- Understand the role of science in greater sociopolitical world context.
- Understand the role of mathematics in science.
- Be able to use mathematics such as graphs and basic statistics to support scientific hypotheses.
- Develop interpersonal communication skills.
- Use online learning technology effectively.
- Be successful.

Course Materials:
Seminar is a discussion course focused on the readings and information gained in your large lecture courses. You will work with the books from your Chemistry, Biology and Composition courses (as applicable). Additional readings will also be supplied to you as handouts, online postings, or from your textbooks for discussion in seminar. As in your lecture classes it is vitally important that you keep up with readings that are assigned in all courses. If you do not keep up with readings it will affect your ability to participate in seminar discussions and will lower your participation grade.

You will also need the following for seminar and other learning community courses:
- Regular access to a computer with Blackboard and Microsoft Office and the ability to upload documents (available on campus).
- Islander email account and the ability to use it.
- Ability to save your computer generated work and transfer it between school and home and among university computers (Laptop, USB Flash Drive, internet drive).
- Freestanding seminars not connected to composition will not be required to purchase the composition texts, but they are very highly recommended.
- Positive attitude and desire to make your life extraordinary is highly recommended!

Course Evaluation:
Attendance: 20%- Active participation is absolutely vital to this class. Your knowledge and opinion is valued and appreciated at every class meeting. Attendance is taken many times throughout the semester at the beginning, middle, or end of class, or via online activities.

- I will record many participation grades throughout the semester and randomly select 10 worth 100 points each.
- I will average your attendance grades.
- I will curve your attendance grade by 20%, to account for any illnesses, or absences.
- This means you may earn up to 120 out of 100 possible attendance points.
- You may also miss 2 days and still have 100% for attendance.
- These random attendance grades may come from completing online assignments, in class writings or handouts, informal reading quizzes, sign in sheets.
- It is up to the student to pay close attention at all times to know when and how attendance is counted since any exercise may become proof of attendance.
- Since I already have two built in “free” days you need not bring notes or email excuses to me.
- If you are injured, hospitalized, or have a serious problem that will cause you to be out for an extended period of time you must contact the Office of Student Engagement and Success to document your absence.

Participation: 10%- This course is designed to be effective when students actively engage and contribute to the success of the class, therefore a participation score of 0 to 100 will be given based on your contribution to the class. An A is not difficult to attain if you come to class, bring in any requested material, are prepared for discussion, and actively engage in a positive way. However, simply showing up will not earn you full points. Your participation in discussions, group work, etc. will determine your participation grade. Obviously if you have an attendance problem, you can expect this score to be correspondingly low, but factors such as excessive off topic talking, sleeping, inappropriate internet use (Facebook, email, games, chat) and other inappropriate
behaviors will lower your participation grade. Being a good citizen of the university and learning community is required!

**Reflective Assignments:** 30%- Two reflective assignments will be done this semester worth 15% each. These individual assignments will be presented via a MS Word document uploaded to the assignment link in Blackboard.

- Personal Mission Statement- 15% Due- Friday Feb 22
- Letter of Application and curriculum vitae to a summer experience- 15% Due-Friday April 26

**Integrated Research Experience:** All students enrolled in the Science Learning Communities Spring 2012 will complete a collaborative research project. The assignment is facilitated primarily through Seminar II. Successful completion requires the synthesis of knowledge from all of your courses. As a Science Learning Community project, all students enrolled in the Learning Community sections of Biology and/or Chemistry must complete the project, whether or not enrolled in Seminar.

You will work as a research team with 4-6 classmates to design and conduct a science investigation- from idea formulation to publication/presentation. Together, you must decide on a research question related to biology or ecology to drive your experiment. Your task is to choose something interesting either on campus or nearby, develop a research question, and safely investigate your question as a scientific team. This is not a lab assignment so you must choose something that is non-hazardous. Answering your research question is through observation only; no tests involving humans or physically interacting with or influencing your research subjects in any way! After determining a suitable research question, you will formulate a hypothesis and design an experiment to gather sufficient amounts of data to test your hypothesis. In your investigation, you must use statistics to test a hypothesis.

The assignment consists of the following graded components turned in to Blackboard:

- **Writing process:**
  - Team Contract- February 8 (2%)
  - Summarized Bibliography- March 8 due in both composition and seminar (4%)
  - Research Proposal Outline with pilot study and preliminary data- March 25 (5%)
  - Proposal to Research Conference- March 29 (2%)
  - Final Research Proposal- April 1 (10%)
  - Draft Presentations- April 19 (2%)

- **Final Presentations (15%)*
  - Classroom- April 29 and 30
  - First Year Research Conference (if selected by conference committee)- May 2 in UC.
  - Includes self and peer evaluations

This integrated assignment combines skills learned in all of your learning community courses and will count for a grade in each learning community course. See each course syllabus to see the point value in each course.

Grades for the assignment will be included in your final grade for all tetrad classes (see each instructor syllabus for details).

**I require few outside assignments, so note that if you fail to turn in any assignment you drop one to two full letter grades.**

If you do not have composition, or if you drop composition or other tetrad classes during the semester, you must still complete all assignments, or contact me via email and in person for alternate assignments.

**Expectations:**
In this class we are learning how to be successful both in college and in life as science professionals. For this reason my philosophy is to treat you as the professional that you are aspiring to be. Let this thought guide you any time that you are not sure how you should conduct yourself in seminar:

"How would I be expected to conduct myself if I were already working as a professional scientist and if my paycheck and reputation depended on professional behavior."
To further guide you here are a few suggestions:

- Your participation is appreciated and expected, but make sure that you have the floor before speaking!
- Only one person should speak at any given time.
- Silence all electronic devices during a meeting.
- Use laptops and handheld devices only when appropriate and do not allow them to prevent your class participation.
- Limit the use of electronic devices to class work (my class) and emergencies only.
- Absolutely do not check e-mail, text messages, use social media, play games, surf the web, or receive non-emergency communications of any kind via any electronic device.
- The preferred method of contacting me is via email.
- If you ask me something in class, be prepared to follow up the discussion with a reminder email.
- Your writing in e-mail should be very concise and to the point, but should also be professional.
- E-mail is not the same as instant messaging or text messaging and should have a greeting, signature, appropriate grammar, punctuation, and capitalization throughout.

Rights Responsibilities and Civil Discourse:
In this course we will engage in active learning including frequent group activities and interactions. We will be exploring real world science topics that may at times result in heated discussions as we meet the objectives of the course such as developing attitudes of caring and clarifying personal goals and values. To meet these many significant learning objectives it will be necessary to establish some ground rules for class discussions so that no one individual dominates the discussion and so that the diverse opinions of others can be respected. You and your classmates will make suggestions that will ultimately be compiled into a set of rules responsibilities and guidelines for civil discourse in this class. Students are expected to read and follow the University Code of Conduct in the Student Handbook, given to them in class at the beginning of the 1st semester.

Students with Disabilities and Veterans:
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Academic Advising:
The College of Science and technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College’s Academic Advising Center is located in Center For Instruction Room 350. Phone is (361) 825-57.

Grade Appeal Process:
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Website at http://www.tamucc.edu/provost/university_rules/index.html, For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

I am thrilled that you chose Texas A&M University- Corpus Christi and Science Learning Communities. Go Islanders!