

Course Syllabus

Course Information - Fall 2013

NATS 1101.008

Natural Sciences & Mathematics Freshman Seminar

Room: GR 3.302

Time: Tuesday 1:00-1:50

Final: None

Professor Contact Information

Prof. Matthew Goeckner

Office: FO 2.610B or NSERL 3.408

Phone: 4292/3

Email: Goeckner @ utdallas.edu

Office Hours:

9 to 5 most days (Or when my office door is open)

M-W,F Generally I will be in FO

Th Generally I will be in NSERL

By appointment (please use email to set this up!)

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Co-requisite: UNIV 1010

Course Description

NATS 1101 - Natural Sciences & Mathematics Freshman Seminar (1 semester hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Natural Sciences and Mathematics (NS&M). Students will learn about plans of study and career paths for majors in Biology, Chemistry, Physics, Mathematics, Geosciences, and Science and Mathematics Education. Basic study, problem solving and other skills needed to succeed as an NSM major will be covered. An overview of the connections within the disciplines of Natural Sciences & Mathematics will be presented, as well as their relationship to engineering, medicine and health, and other fields. Required for all first time in college freshmen in NS&M. Co-requisite: UNIV 1010. (1-0) Y

Student Learning Objectives/Outcomes

Upon completion of this course, students will have:

- An understanding of the science professions and the degree programs leading to them.
- An appreciation of professional ethics
- An appreciation and practice of basic skills essential to success in NS&M majors including problem solving skills, communications skills, teamwork.
- An understanding of basic approaches to scientific process and exposure to quantitative methods.

Required Textbooks and Materials – NONE

Notes, supporting material, other resources will be posted on eLearning

Course & Instructor Policies

(make-up exams, extra credit, late work, special assignments, class attendance, classroom citizenship, etc.)

Exams: There are currently no formal exams in this course.

Quizzes: on lecture material are shown on the schedule.

Notes: Class notes are due as shown on the schedule above. Notes must be taken for each class and rewritten neatly and accurately before turning in on the due date shown.

Homework: Homework due dates are approximate and will be updated as homework is assigned.

Semester Project: The semester project will be assigned as shown on the schedule above. Note that the project grade is a team grade, including the presentation/demo and the final report.

Class attendance: Class attendance is taken.

Off-campus Instruction and Course Activities

Below is a description of any travel and/or risk-related activity associated with this course.

Policies and Procedures for Students

The University of Texas at Dallas provides a number of policies and procedures designed to provide students with a safe and supportive learning environment. Brief summaries of the policies and procedures are provided for you at <http://provost.utdallas.edu/home/index.php/syllabus-policies-and-procedures-text> and include information about technical support, field trip policies, off-campus activities, student conduct and discipline, academic integrity, copyright infringement, email use, withdrawal from class, student grievance procedures, incomplete grades, access to Disability Services, and religious holy days. You may also seek further information at these websites:

- http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm
- <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>
- <http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm>
- <http://www.utdallas.edu/disability/documentation/index.html>

These descriptions and timelines are subject to change at the discretion of the Professor.

Assignments & Academic Calendar

(Topics, Reading Assignments, Due Dates, Exam Dates)

Date	Area	Topic	Assignments	Notes/Comments
27-Aug-13	Success as a student	Lecture 1: Introduction		Video on innovation.
3-Sep-13		Lecture 2: Learning About Learning		
10-Sep-13		Lecture 3: Taking Notes and Reviewing	Notes Lecs. 1-2 due.	First set of notes due.
17-Sep-13		Lecture 4: Time Management and Schedule Organization.	Notes Lecs. 3 due	
24-Sep-13		Lec. 5: Oral and Written Communication – Effective communication and why to do it!	Notes Lecs. 4 due	Oral pres. assignments. Form class teams.
1-Oct-13		Lec. 6: How to Approach Homework and Why	Notes Lecs. 5 due	
8-Oct-13		Quiz: Success Set up groups for remainder of semester	Notes Lecs. 6 due – notes done	Quiz on Lectures 1-6.
15-Oct-13	Science and Innovation	Lecture 7: The scientific process and creativity Linking across areas of science and to society.	Presentation by each team (3 minutes).	In class assignment.
22-Oct-13		Lecture 8: The scientific process and project management, Class project assignment, Planning for future classes		Class project assignment
29-Oct-13		Lecture 9: Scientific failures and relation to ethics. <u>Draft</u> project proposal due	<u>Draft</u> written project proposal due	
5-Nov-13		Lecture 10: Introduction to Design; <u>FINAL</u> project proposal due	<u>FINAL</u> written project proposal due	
12-Nov-13		Quiz: Innovation and Science, In class project work	<u>Draft</u> written project reports due	Quiz on Lectures 7-10.
19-Nov-13		In class project work		
26-Nov-13		Fall Break		
3-Dec-13		Project demos and oral presentations	<u>FINAL</u> written project reports due	
10-Dec-13		Project demos and oral presentations		
Dec. 13-19		Final Exam Days		No NATS 1101 Exams.

Notes About Classes:

1. You are required to take notes in class, re-write and reorganize them, and turn the rewritten notes in. They will be graded, and the grades are 20% of your course grade.
2. Semester projects presentations are on Dec. 4 and 11.

Grading Policy:

Attendance	-- 20%
(No more than two [2] unexcused absences)	
Class Notes	-- 20%
Homework problems and quizzes	-- 30%
Semester project: (includes 3 reports)	-- 30%
(Two written, one oral)	
Total	-- 100 %

Grade ranges for ECS 1200 are: A+: 97-100; A: 93-96; A-: 90-92; B+: 87-89; B: 83-86; B-: 80-82; C+: 77-79; C: 73-76; C-: 70-72; D+: 67-69; D: 63-66; D-: 60-62; F: below 60.

Note: Grading policy subject to change!