

Course Syllabus

Course Information - Fall 2015

NATS 1101 Natural Sciences and Mathematics Freshman Seminar

NATS 1101.**011**

NATS 1101.**012**

Room: SLC 1.204

SLC 1.204

Time: MW 9-10 AM

MW 10-11 AM

Final: None

Professor Contact Information

Prof. Matthew Goeckner

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Office Hours: 9-4 most days – by email most hours

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

Corequisite: UNIV 1010

Course Description

NATS 1101 Natural Sciences and Mathematics Freshman Seminar (1 semester credit 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 NS&M major will be covered. An overview of the connections within the disciplines of Natural Sciences and 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. Corequisite: UNIV 1010. (1-1) Y

Student Learning Objectives/Outcomes

Upon completion of this course:

1. **Begin the development of Critical Thinking Skills needed in the Scientific process**
2. **Begin the development of Communication Skills required to explain scientific concepts**
3. **Begin the development of Empirical and Quantitative Skills needed in the Scientific process**
4. **Begin the development of Teamwork needed in the Scientific process and community**
5. **Begin the development of Social and Personal Responsibility and ethics required in the world and society at large.**
6. **Understand how to develop and plan for long-term goals.**

Required Textbooks and Materials – NONE

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

Assignments & Academic Calendar

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

Area	Faculty Topic	FYL Topic 2nd day of week	CLO	Notes/Comments	MW
Success as a student	Write a paragraph about the nature of universities and why you are here.		1	MUST TAKE CLA+ in testing center	22-Aug-16
	Topic 1: Introduction to Learning and Thinking	Intro to UTD	1		24-Aug-16
	Topic 2: Finish Introduction to Learning and Thinking		1,2,4		29-Aug-16
	Topic 3: Reading and learning in the classroom	Managing your College Environment	2,6		31-Aug-16
	Topic 4: By FYL	Time Management and Schedule Organization.	5,6		7-Sep-16
	Topic 5: The sum total of science – the Library		6		12-Sep-16
	Topic 6: Oral and Written Communication – includes electronic communications	Academic Communication	2		14-Sep-16
	Quiz: On Success as a Student				19-Sep-16
Scientific Method	Begin Project – explain project parameters	Campus Services	4		21-Sep-16
	Topic 7: The structure of scientific fields		2,4		26-Sep-16
	Topic 8: The structure of NSM at UTD	Wellness	2,4		28-Sep-16
	Topic 9: Introduction to experimentation – Correlation vs. causation - How serendipity factors into science and education; Draft “Proposal” due		3		3-Oct-16
	Project in-class work	Midterm Madness	2	Project in-class work	5-Oct-16
	Project proposal presentations (elevator speech)				10-Oct-16
	Quiz: Scientific method - Planning for future classes	Life Skills	5		12-Oct-16
Ethics	Topic 10: Ethics and UTD		5		17-Oct-16
	Topic 11: Ethics and Technology	Being Civil in a Diverse Society	5		19-Oct-16
	Ethics and technology - in class project		5		24-Oct-16

	Project in-class work	Substance abuse		Project in-class work	26-Oct-16
	Quiz: Ethics			Project in-class work	31-Oct-16
Project planning and execution	Topic 12: Building learning communities	Getting Involved	6	Project in-class work	2-Nov-16
	UTD Clubs and Science community activities - Project in-class work		6		7-Nov-16
	Project in-class work			Project in-class work	9-Nov-16
	Project in-class work				14-Nov-16
	"Quiz": Go to a Student Academic Organization at UTD – 1 Paragraph report due		6	Draft final report due.	16-Nov-16
	FALL BREAK			FALL BREAK	21-Nov-16
	FALL BREAK			FALL BREAK	23-Nov-16
Project reviews	Final demos and presentations				28-Nov-16
	Final demos and presentations				30-Nov-16
	Final demos and presentations; top two teams from each class move on to final competition			Project final report due.	5-Dec-16
	Final project "Showdown:" between class champions, Location TBD				7-Dec-16
	Final Exam Days				9-Dec-15

Grading Policy:	Attendance	--	20%
	Quizzes	--	40 %
	Semester project: (includes all reports)	--	40%
	Total	--	100 %

Grade ranges for NATS 1101 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!

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.

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://go.utdallas.edu/syllabus-policies> 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:

- <https://www.utdallas.edu/campuscarry/>
- 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.