Course Syllabus

Course Information - Fall 2015

NATS 1101 Natural Sciences and Mathematics Freshman Seminar

NATS 1101.**015**	NATS 1101.**010**
Room: SLC 1.204	SLC 1.202
Time: MW 1-1:50 PM	TR 1-1:50 PM
Final: None	

Professor Contact Information

Prof. Dr. Scott Aldrich
Office:
Phone:
Email: scott.aldrich@utdallas.edu
Office Hours: Immediately following class or by email in advance

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	TR
Success as a student	Topic 1: Syllabus Day	Intro to UTD	1	MUST TAKE CLA+ in testing center	22-Aug-16	23-Aug-16
			1		24-Aug-16	25-Aug-16
	Topic 2: Introduction to Learning and Thinking Topic 3: Reading and Learning in the Classroom	Getting Involved	1,2,4		29-Aug-16	30-Aug-16
			2,6		31-Aug-16	1-Sep-16
	LABOR DAY				5-Sep-16	6-Sep-16
		Time Management and Schedule Organization.	5,6		7-Sep-16	8-Sep-16
	Topic 5: The sum total of science – the Library Topic 6: Oral and Written Communication	Academic Communication	6		12-Sep-16	13-Sep-16
			2		14-Sep-16	15-Sep-16
	Quiz: On Success as a Student Begin Project – explain project parameters	Campus Services			19-Sep-16	20-Sep-16
Scientific Method			4		21-Sep-16	22-Sep-16
	Topic 7: The structure of scientific fields Topic 8: The structure of NSM at UTD	Wellness	2,4		26-Sep-16	27-Sep-16
			2,4		28-Sep-16	29-Sep-16
	Topic 9: Introduction to experimentation – Correlation vs. causation - How serendipity factors into science and education; Draft "Proposal" due Project in-class work	Midterm Madness	3		3-Oct-16	4-Oct-16
			2	Project in-class work	5-Oct-16	6-Oct-16
	Project proposal presentations (elevator speech) **Quiz: Scientific**	Life Skills			10-Oct-16	11-Oct-16
			5		12-Oct-16	13-Oct-16

	method - Planning for future classes					
Ethics	Topic 10: Ethics and UTD Topic 11: Ethics and Technology	Being Civil in a Diverse Society	5		17-Oct-16	18-Oct-16
			5		19-Oct-16	20-Oct-16
	Ethics and technology - in class project Project in-class work	Substance abuse	5		24-Oct-16	25-Oct-16
				Project in-class work	26-Oct-16	27-Oct-16
Project planning and execution	**Quiz: Ethics** Topic 12: Building learning communities	Managing your college environment		Project in-class work	31-Oct-16	1-Nov-16
			6	Project in-class work	2-Nov-16	3-Nov-16
	UTD Clubs and Science community activities - Project in-class work		6		7-Nov-16	8-Nov-16
				Project in-class work	9-Nov-16	10-Nov-16
	Project in-class work	**"Quiz":** Go to a Student Academic Organization at UTD – 1 Paragraph report due			14-Nov-16	15-Nov-16
			6	**Draft** final report due.	16-Nov-16	17-Nov-16
	FALL BREAK				21-Nov-16	22-Nov-16
	FALL BREAK				23-Nov-16	24-Nov-16
Project reviews	Final demos and presentations				28-Nov-16	29-Nov-16
					30-Nov-16	1-Dec-16
	Final demos and presentations; top two teams from each class move on to final competition			Project **final** report due.	5-Dec-16	6-Dec-16
	Final project "Showdown:" between class champions, Location TBD				7-Dec-16	8-Dec-16
	Final Exam Days				12-Dec-16	13-Dec-16

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://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/campuscarry/
- http://www.utdallas.edu/disability/documentation/index.html

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