

## *Course Syllabus*

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### **Course Information - Fall 2015**

NATS 1101.012  
Introduction to NSM  
Room: GR 3.302  
Time: WF 11:00am – 11:50am  
Final: None

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### **Professor Contact Information**

Prof. Bill Gammons  
Office: FN 3.308L  
Phone: 6444  
Email: bill.gammons@utdallas.edu  
Office Hours:  
Wednesday and Friday 9-  
10:30  
By appointment (please use  
email to set this up!)

Prof. Ignacio Pujana  
Office: ROC 2.301  
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Office Hours:  
Thursday 9-11  
By appointment (please use  
email to set this up!)

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

Corequisite: UNIV 1010

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### **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

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### **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.**

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### **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)

Date	Area	Faculty Topic	FYL Topic	CLO	Assignments	Notes/Comments
August 26	Success as a student	<b>Introduction to universities and UTD</b> <b>Lecture 1: Introduction to Learning and Thinking</b>	Intro to UTD	1		MUST TAKE CLA+ in testing center
August 28		<b>Lecture 2: Finish Introduction to Learning and Thinking</b>		1		
September 2		<b>Lecture 3: Reading and learning in the classroom</b>			<b>Notes Lecs. 1-2 due.</b>	First set of notes due.
September 4		<b>Lecture 4: The sum total of science – the Library</b>				
September 11		<b>Lecture 5: Time Management and Schedule Organization. By FYL</b>	Managing your College Environment		<b>Notes Lecs. 3-4 due</b>	Oral pres. assignments. Form class teams.
September 16		<b>Lec. 6: Oral and Written Communication – includes electronic communications</b>	Academic Communication			
September 18		<b>Quiz: Success covers CLO</b>	Campus Services		<b>Notes Lecs. 5-6 due</b>	Quiz on Lectures 1-6.
September 23	Scientific Method	<b>Begin Project – explain project parameters</b>			<b>Homework due</b>	Logo design assignment.
September 25		<b>Lec. 7: The structure of scientific fields</b>			<b>Notes Lec 7 due</b>	Presentation by each team ( <u>3 minutes</u> ).
September 30		<b>Lecture 8: The structure of NSM at UTD</b>			<b>Homework due</b>	
October 2		<b>Lecture 9: Introduction to experimentation – Correlation vs. causation; Draft “Proposal” due</b>			<b>Notes Lec 8 due</b>	Chair design assignment.
October 7		<b>Project in-class work</b>			<b>Homework due</b>	5 min. presentations.
October 9		<b>Project proposal presentations (elevator speech)</b>			<b>Notes Lec 9 due</b>	<b>Project proposal document also due.</b>
October 14		<b>Quiz: Scientific method</b>	Midterm Madness			Quiz on Lectures 7-9.

October 16	Ethics	Lecture 10: Ethics and UTD			Homework due	
October 21		Lecture 11: Ethics and Technology	Being Civil in a Diverse Society	5	Notes Lec 10 due	
October 23		Ethics and technology - in class project		5	Homework due (last homework)	After ethics assignments, free time on projects.
October 28		Project in-class work			Notes due (done)	<b>Draft</b> critical design review due (report form).
October 30		Quiz: Ethics			Quiz on tools	Quiz on Lectures 10-11.
November 4	Project planning and execution	Lecture 12: Building learning communities	Getting Involved			Teams work on project.
November 6		Project in-class work BRING IN CLUBS				Teams work on project.
November 11		Project presentations and report			Design review	Report also due.
November 13		Project in-class work CLUBS PPT?	Life Skills			Teams work on project.
November 18		Project in-class work	Alcohol			Presentations by teams in engineering/CS.
November 20		Project in-class work	Wellness			
November 25		Project in-class work				<b>Draft</b> final report due.
November 27		Planning for future classes; Project class work				Teams work on project.
December 2		Project in-class work				Teams work on project.
December 4		Final demos and presentations			Demos	Project final report due.
December 9	Project reviews	Final demos and presentations; top two teams from each class move on to final competition			Demos	Project final report due. .
December 11		Final project "Showdown:" between class champions, TI Auditorium			Demos	All students <b>must</b> attend this class!!!
December 16		Final Exam Days				No ECS 1200 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 10% of your course grade.
2. Semester projects presentations are on Dec. 1 and 6; final competition is on Dec.8.

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<b>Grading Policy:</b>	<b>Attendance</b>	--	<b>20%</b>
	<b>Class Notes</b>	--	<b>20%</b>
	<b>Quizzes</b>	--	<b>20 %</b>
	<b>Semester project: (includes 3 reports)</b>	--	<b>40%</b>
	<b>Total</b>	--	<b>100 %</b>

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!**

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### **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.

**Homework:** 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 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.

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### **Off-campus Instruction and Course Activities**

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

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### **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/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.*