

ECS 1200 Course Syllabus – The University of Texas at Dallas

Course : ECS 1200 – Introduction to Engineering and Computer Science, Fall, 2013
Class Schedule: Section 009 – M, 12:00 - 12:50 PM, ECSS 2.410
 Section 010 – W – F, 12:00 - 12:50 PM, ECSS 2.103/4
Instructor: Dr. Sam Sharghi Tel: (972) 883-3559 email: sds130730@utdallas.edu
Office: ECSN 3.910 **Office Hours:** M, W, F. 2:00 - 4:00 PM, and by appointment
Instructors Website: <http://www.utd.edu/~xxxx/>

Description

ECS 1200 Introduction to Engineering and Computer Science (2 semester hours) Introduction to the engineering and computing professions, professional ethics. Overview of ECS curricula, connections among ECS fields and to the sciences, and other fields. Basic study, problem solving and other skills needed to succeed as an ECS major. Engineering design and quantitative methods. Introduction to MATLAB. Multi-disciplinary team projects designed to replicate decision processes in real-world situations. (1-2) Y

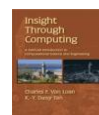
Student Learning Objectives/Outcomes:

Upon completion of this course, students will have:

- (a) An understanding of the engineering and computing professions and the degree programs leading to them.
- (b) An appreciation of professional ethics
- (c) An appreciation and practice of basic skills essential to success in ECS majors including problem solving skills, communications skills, team work.
- (d) An understanding of basic approaches to design and exposure to quantitative methods.

Required Textbooks and Materials:

- Handouts**
- Insight Through Computing: A MATLAB Introduction to Computational Science and Engineering:**
Authors: Charles F. Van Loan, Cornell University, New York
 K.-Y. Daisy Fan, Cornell University, New York
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 ISBN: 978-0-898716-91-7
- Studying Engineering By Landis



Grading Policy: For ECS 1200 course students, grades are calculated as follows:

ACTIVITIES								PERCENTAGES	
Attendance Policy:								20%	
Absences	<7	7	8	9	10	11	12		
Points	20	17	14	11	8	4	0		
Note: that if you have more than 12 absences you will fail the course. In class all three meetings per week									
Team Project Design and Presentation (interviews)								20%	
Quizzes								10%	
Exam1								20%	
Exam2								30%	
Total								100%	

Grades

Grade	Points	Grade	Points	Grade	Points	Grade	Points	Grade	Points
A+	97 – 100	B+	87 - 89	C+	77 – 79	D+	67 – 69	F	Below 60
A	93 – 96	B	83 - 86	C	73 – 76	D	63 – 66		
A-	90 - 92	B-	80 - 82	C-	70 - 72	D-	60 - 62		

Note: Grading policy subject to change!

Important Dates:
1. Last day to withdraw without a W: September 11
2. Last day to withdraw with a W: October 31
3. Thanksgiving Break: Week of November 25
4. Last day of class: December 11

UTD Academic Calendar	
Friday, Oct 18	Fall 2013 Midterm Grades Available Online (UG Only)
Friday, Oct 18	Fall 2013 Undergraduate Midterms - Grades Available Online
Thursday, Dec 19	Fall 2013 Final Grades Viewable / Available Online (after posting)
Friday, Dec. 20	Final Grades Viewable Online(after posting)

Lecture Schedule and Major Assignments, ECS 1200, Fall, 2013

Date	Sub.	Units	Topic	Readings	Assignments	Notes/Comments	Due Date
M, Aug 26	Lec	Unit 1: Studying Engineering	Keys to Success in Engineering Study		SE Lecture1		
W, Aug 28	Lec/Lab		The Engineering Profession		SE Lecture2		
F, Aug. 30	Lab		Understanding the Teaching/Learning Process		SE Lecture3	http://www.youtube.com/watch?v=5QHc0RK0FxA	
M, Sept. 2			University Closings			Labor Day.....Monday, September 2	
W, Sept. 4	Lec/Lab		Making the Learning Process Work for You		SE Lecture4		
F, Sept. 6	Lab		Project proposal presentations		Project #1	Project proposal document also due.	F, Sept. 20
M, Sept. 9	Lec	UNIT 2: Ethics of Engineering	Personal Growth and Development		SE Lecture5, Quiz#1		
W, Sept. 11	Lec/Lab		Ethics & Technology		Et Lecture1	Last Day to drop a class without a "W"	
F, Sept. 13	Lab		What is software Engineering?		S-E Lecture1	http://www.youtube.com/watch?v=bFmThPwKRGU	
M, Sept. 16	Lec		What is Software Architecture?,	Sect 2, 2 - 4	Lab #1	Identifying Object-Oriented Classes	F, Sept. 20
W, Sept. 18	Lec/Lab		Introduction to MATLAB	Preface	L1,L2		
F, Sept. 20	Lab		Introduction to MATLAB	Preface	L1,L2		
M, Sept. 23	Lec	UNIT 3: Software Engineering	Conditionals , For-Loops	1.2, 2.1	L2,L3, L4,	Eq1_1 , Eq1_2 , Quad1 , Quad2 , L2	
W, Sept.25	Lec/Lab		While Loops, Iteration	2.2	L7, Quiz#2	MySqrt , ShowRand , SqrtFor , SqrtWhile	
F, Sept. 27	Lab		More Complicated Boolean Examples	3.1	L5, L6	TriStick , LeapYear , UpDown , QuadMin	
M, Sept. 30	Lec		More Complicated Iteration	3.2	L8		
W, Oct. 2	Lec/Lab		Iteration		Lab #2	ForWhile , RandQuad (For/While Practice)	W, Oct. 9
F, Oct. 4	Lab		Project presentations		Project #2	Project proposal document also due.	F, Oct. 25
M, Oct. 7	Lec		Arrays and Plotting	4.1	L9	Xeno , EllipsePlot , SinePlot	
W, Oct. 9	Lec /Lab		Arrays and Plotting	4.2	L10, Quiz #3	Xeno , EllipsePlot , SinePlot	
F, Oct. 11	Lab		The Discrete vs. the Continuous	4.3	L11	Gap , ShowGap , randomQuadratic , rootsQuadratic , ShowQuadratic	
M, Oct. 14	Lec		More of the Discrete vs. the Continuous		L12		
W, Oct. 16	Lec /Lab		Exam 1				
F, Oct. 18	Lab		Plotting Continuous Functions			MySqrt , MySqrtErr	
M, Oct. 21	Lec		User-Defined Functions	5.1, 5.2	L13, Lab # 3	TriCentroid , ShowRGB , Twinkle (functions to draw..)	W, Oct. 30
W, Oct. 23	Lec /Lab		User-Defined Graphics Functions	5.3	L14	DrawPoly , ShowPoly , NewPoly	
F, Oct. 25	Lab		Working with functions and arrays			Pizza , Slice , DrawDisk , DrawNstar , ShowNstar	
M, Oct. 28,	Lec		Randomness	6.1, 6.2	L15, Quiz #5	DrawEllipse , Roll2Dice , RandWalk , ShowRandWalk , PlotDistances	
W, Oct. 30	Lec /Lab		Strings		L16	AddComma , DNA , Tomorrow , RemoveBlanks , MoreBoolean	
F, Nov. 1	Lab		Functions and Arrays		Lab # 4		W, Nov. 8
M, Nov. 4	Lec		Project proposal presentations		Quiz #5 ,Project #3	Project proposal document also due.	W, Nov. 20
W, Nov. 6	Lec /Lab		Still More on Arrays			Matrix Operations	
F, Nov. 8	Lab		Structures	10.1, 10.2	L17		
M, Nov. 11	Lec		Cell Arrays	9.1, 9.2		States , VerticalStates , CardDeck , Deal , ShowCards , Shuffle ,	
W, Nov. 13	Lec /Lab		Two-Dimensional Arrays		L19, Quiz #6	CellArrays Structures	
F, Nov. 15	Lab		Two-Dimensional Arrays	7.1, 7.2	L20	CharAndCell , Lookin4Stuff	
M, Nov. 18	Lec		More on Two-Dimensional Arrays		L21	MyEllipse.m , MyEllipse.fig , MyMagic	
W, Nov. 20	Lec /Lab		Still More on Two-Dimensional Arrays	7.3	Lab # 5	ShowEdges , Tower.jpg , Devlin.jpg , LawSchool.jpg , OrbitFeatures.fig OrbitFeatures.m	F, Dec. 4
F, Nov. 22	Lab		Working with Data Files	11.1	L22	Cell2File , File2Cell , StatePop.dat , ShowPop1bl8.dat , ShowBackbone	OrbitFeatures.fig
M, Nov. 25		Unit 5: Engineering Education System and career opportunities	University Closings, No Classes:.			Fall break.....Mon., Nov. 25 – Sat. Nov. 30	
W, Nov. 27			No Classes:.			Thanksgiving holidays..... Thurs., Nov. 28 – Sat., Nov. 30	
F, Nov. 29			No Classes:			Fall break.....Mon., Nov. 25 – Sat. Nov. 30	
M, Dec. 2	Lec		More Working with Data Files	11.1	L22	Cell2File , File2Cell , StatePop.dat , ShowPop1bl8.dat , ShowBackbone	OrbitFeatures.fig
W, Dec. 4	Lec /Lab		Exposure to quantitative methods		EQM L1		
F, Dec. 6	Lab		<i>Orientation to the Engineering Education System</i>		SE Lecture8		
M, Dec. 9	Lec		Exams 2				
W, Dec. 11			Career Opportunities for Engineers		BE L4		
F, Dec. 13 – Thurs Dec. 19			Fall 2013 Final Grades Viewable / Available Online (after posting)				

Student Conduct & Discipline:

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity:

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

Email Use:

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

Withdrawal from Class:

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Student Grievance Procedures:

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's Handbook of Operating Procedures.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for

assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grade Policy:

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.

Disability Services:

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is: The University of Texas at Dallas, SU 22

*PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)*

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days:

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Note:

These descriptions and timelines are subject to change at the discretion of the Bioengineering Department and instructor.