

EE1205-001 Introduction to Electrical Engineering Spring 2013

1. **Instructor:** Donald Butler; <http://www-ee.uta.edu/eedept/Faculty/Dbutler.htm>
2. **Office Location:** NanoFab 202B; Mailbox: 19072
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4. **Email:** dbutler@uta.edu
5. **Office Hours:** M 1:00-2:00, Wed. 2:00-3:00, Fri. 11:00-12:00
6. **Graduate Teaching Assistant (GTA):** Nuzhat Mansur, nuzhat.mansur@mavs.uta.edu , Office Hours, IEEE Mentoring Office (NH 132): TuTh 9:30-12:30
7. **Course Website:** material for the seminar portion of the course will be posted on Blackboard at <https://elearn.uta.edu/>
8. **Course Meeting:**

EE1205-001 (Seminar) W4:00-4:50 GS100 Butler

Each student must attend EE1205-001 (Seminar) PLUS one of the following lab sections

EE1205-101 Mo 2:00-2:55 NH109 (Dillon) followed by Mo 3:00-4:50 NH148A (Dillon)

or

EE1205-102 Tu 9:30-10:25 NH112 (Russell) followed by Tu 10:30-12:20 NH129A (Russell)

or

EE1205-103 Th 9:30-10:25 NH112 (Russell) followed by Th 10:30-12:20 NH129A (Russell)

9. Catalog Course Description:

EE 1205 INTRODUCTION TO ELECTRICAL ENGINEERING (1-3) A project based course in which basic concepts in electrical engineering, such as electrical systems, power and energy, circuit laws, measurements, and data analysis will be introduced. Student teams will engage in laboratory experiments, application hands-on projects, which cover areas of study in electrical engineering including analog and digital electronics, robotics, semiconductors, electro-magnetics, signal processing, photonics, energy management, and telecommunication systems. Corequisites: EE 1104.

10. Course Learning Objectives:

The Seminar section (Section -001) is intended to introduce the students to different disciplines of Electrical Engineering and the importance of ABET a-k. This is to supplement the course learning objectives that are listed for section -102, -103. Only the seminar portion is provided here.

| | | | |
|----|--|-----------|------------------|
| 12 | An understanding of the application of electrical engineering disciplines in addressing global and contemporary issues and problems. | ABET h, j | seminar lectures |
| 13 | An understanding of system concepts and multidisciplinary nature of electrical Engineering | ABET | seminar lectures |
| 14 | An understanding of the importance of advanced degrees and lifelong learning. | ABET i | seminar lectures |

11. Topics:

The Seminar section is a collection of talks on various disciplines of Electrical Engineering plus a few lectures on basics of Electrical Engineering. The syllabus will be updated with the topics and schedule soon. Attendance is required and will be recorded each class day.

12. Textbooks:

1. F.T. Ulaby and M.M. Maharbiz, *Circuits*, National Technology and Science Press, 2009, ISBN 978-1-934891-00-1
2. H.T. Russell, Jr., *EE 1205 Introduction to Electrical Engineering Lab Manual, VI.1*, OPAL_{TX}, Fort Worth, TX, 2011.
Go to <http://www.uta.edu/ee/hw/ee1205-101/> and select the **Downloads**

13. Schedule

| EE 1205-001 | | | |
|----------------------------|----------------|--|---------------|
| Tentative Seminar Schedule | | | |
| Seminar/Date | | Topic | Speaker |
| 1 | 1-16 | Introduction and logistics. | Butler, Alavi |
| 2 | 1-23 | Measurements and Instrumentation | Dillon |
| 3 | 1-30 | From materials to devices to integrated circuits | Butler |
| 4 | 2-6 | From integrated circuits to systems | Russell |
| 5 | 2-13 | Pulsed Power | Wetz |
| 6 | 2-20 | Nanotechnology | Celik-Butler |
| 7 | 2-27 | Telecommunications | Liang |
| 8 | 3-6 | Midterm Exam | |
| | 3-9 to 3-17 | Spring Break - No classes | |
| 9 | 3-20 | Microprocessor & Digital Systems (tentative) | Gibbs |

| | | | |
|----|------|-------------------------------------|------------|
| 10 | 3-27 | E&M, Antennas | Tjuatja |
| 11 | 4-3 | Power Generation and Distribution | Kenarangui |
| 12 | 4-10 | Electromagnetics and Optics | Magnusson |
| 13 | 4-17 | Optical Devices and Optical Systems | Vasilyev |
| 14 | 4-24 | Signal Processing and Networks | Schizas |
| 15 | 5-1 | Review Week Class: Going Forward | Butler |
| 16 | TBC | Final Exam | Butler |

14. General Seminar Section Information:

- i. There are 14 seminar class meetings scheduled plus one midterm and one Final.
- ii. Your attendance in seminar is required and will be recorded by sign-up sheets. You must sign in to be counted as present.
- iii. Periodic homework will be assigned to help you prepare for the exams.
- iv. Mid-term examination will be a take-home exam assigned Wed. March 6 and due no later than Mon. March 11 at 5:00 PM.
- v. The final examination (2.5 hours) will be given per the university exam schedule and will be a comprehensive written examination. All students, without exception, **must** take the final examination on the scheduled date.
- vi. All communication devices must be turned off while in the Seminar and the Lecture/Lab Sections. Communication devices of any type are not allowed to be used on any and all exams. No exceptions. Calculators without communication capability are permitted.
- vii. As a general rule, no late or make-up mid-term or final examinations given. Make-up exams will only be given in the case of serious illness. Written documentation of the illness from a medical doctor is required to receive a make-up exam. Students requiring a makeup exam must make an appointment as soon as possible after the scheduled exam date.
- viii. The *total grade* (T) for the EE 1205 course is based on the grade received in the Seminar Section and that received in the Lecture/Lab Section. The grade for the *Seminar Section* (SS) is 20% of the total and is computed from the following– 5% attendance, 5% midterm, 10% Final. Exam material is based on Seminar material and suggested readings.
- ix. Your seminar attendance record and exam grades will be entered into Blackboard for your review.

- x. My office hours and the TA's office hours are given above. If you have any questions and/or adverse difficulty with the lectures or class material, I strongly suggest that you call or e-mail me or the GTA. I am available outside of the office hours given as my time permits. Please note, my phone has voicemail but there is no indication a message has been left. Please do not leave a voice message but send me an email instead.
Appointments can be arranged as necessary.
- xi. Additional important dates:

Census date –**January 30, 2013.**

Last day to drop classes –**March 29, 2013.**

Summer and Fall 2013 registration starts –**April 1, 2013.**

Last day of classes –**May 3, 2013**

Final Exams - May 6 - May 10.

xii. Percentages for Grades

◆ 90% -100% A

◆ 80% - 89% B

◆ 70% - 79% C

◆ 60% - 69% D

◆ 0% - 59% F

15. Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/ses/fao>).

16. Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation,

including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

17. Academic Integrity: At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but not limited to) "cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts" (UT System Regents' Rule 50101, §2.2). Suspected violations of academic integrity standards will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Responsibility

Undergraduate and graduate students assume full responsibility for knowledge of all University rules, regulations and deadlines published in the Undergraduate and Graduate Catalogs and of all departmental and program requirements concerning their degree programs.

Definitions (UTA Handbook of Operating Procedures)

F. scholastic dishonesty, including, but not limited to, cheating on an examination or an assignment, plagiarism, and collusion;

1. *cheating on an examination or an assignment* includes:

- a. copying the work of another, engaging in written, oral or any other means of communication with another, or giving aid to or seeking aid from another when not permitted by the instructor;
- b. using material during an examination or when completing an assignment that is not authorized by the person giving the examination or making the work assignment;
- c. taking or attempting to take an examination for another, or allowing another to take or attempt to take an examination for a student;
- d. using, obtaining, or attempting to obtain by any means, the whole or any part of an un-administered examination or work assignment;

- e. any act designed to give unfair advantage to a student or the attempt to commit such an act;
2. *plagiarism* means the unacknowledged incorporation of the work of another in work that is offered for credit;
3. *collusion* means the unauthorized collaboration with another in preparing work that is offered for credit.

18. Student Support Services Available: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to resources@uta.edu, or visiting www.uta.edu/resources.

19. Electronic Communication Policy: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

When sending an email to me, please put the course number as part of the email subject so that I can give it prompt attention.

20. Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

21. Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the

end of the term. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

The following is an excerpt from the College of Engineering's statement on Ethics, Professionalism, and Conduct of Engineering Students. Read the statement carefully, sign it, and return it to your instructor. You may make a copy for your records. Additional copies of this statement can be obtained from your instructor or the Office of the Dean of Engineering.

STATEMENT ON ETHICS, PROFESSIONALISM, AND CONDUCT
FOR ENGINEERING STUDENTS
COLLEGE OF ENGINEERING

THE UNIVERSITY OF TEXAS AT ARLINGTON

The College cannot and will not tolerate any form of academic dishonesty by its students. This includes, but is not limited to cheating on examination, plagiarism, or collusion.

Cheating on an examination includes:

1. Copying from another's paper, any means of communication with another during examination, giving aid to or receiving aid from another during examination;
2. Using any material during examination that is unauthorized by the proctor;
3. Taking or attempting to take an examination for another student or allowing another student to take or attempt to take an examination for oneself.
4. Using, obtaining, or attempting to obtain by any means the whole or any part of an un-administered examination.

Plagiarism is the unacknowledged incorporation of another's work into work which the student offers for credit.

Collusion is the unauthorized collaboration of another in preparing work that a student offers for credit.

I have read and I understand the above statement.

In addition, I understand that, in order to ensure fairness to all students, exams will be proctored and possibly videotaped.

Course and section number: EE 1205-001

Date: _____

Student's signature: _____

Student's name, printed: _____

Student's ID number: _____

Student's e-mail address: _____
(please print clearly your UTA email address)