

**EE 1201: Introduction to Electrical Engineering**  
Fall 2016

**Instructor(s):** Dr. SAMIR IQBAL  
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<http://bit.ly/2bFhTli>  
**Office Hours:** MW 2-3 pm

**Section Information:** EE 1201-001

**Time and Place of Class Meetings:** Mondays and Wednesdays, 4 pm to 5:20 pm  
College Hall, Room 101

**Course Information:** Blackboard → <https://elearn.uta.edu/>  
Look for “2168-EE-1201-001-INTRODUCTION-TO-ELECTRICAL-ENG--2016-Fall” in the left panel.  
Course content like lecture slides, handouts, announcements, quizzes, grades, attendance grade, etc. will be posted on Blackboard.

**GTA Information**

Name (Email)	Office Hours	Location
Mr. Muhammad Ijaz (muhammadhammad.ijaz@mavs.uta.edu)	TBD	TBD
Mr. Mohammad Abdallah (mohammad.abdallah@mavs.uta.edu)	TBD	TBD
Mr. Farhan Chowdhury (farhan.chowdhury@mavs.uta.edu)	TBD	TBD

**Description of Course Content:** After an introduction to different branches of Engineering, we focus on Electrical Engineering to illustrate concepts, methods, problem solving approaches, and tools common to all Engineering, and those unique to Electrical Engineering. Various areas within Electrical Engineering will be introduced, with examples from analog and digital electronic circuits, control and robotics, microwave and optical engineering, telecommunication, energy systems, and biosensors. Students will be introduced to skills they need to succeed in subsequent Engineering courses. The students will learn about laws and rules related to academic integrity and professional ethical responsibilities. The emphasis is to engage students in active learning through exercises, mini-projects, and team activities. Selected speakers from across the College of Engineering will make presentations and emphasize the interdisciplinary nature of Engineering.

**Student Learning Outcomes:**

#	Course Learning Objective (CLO)
1	Understanding of the main differences between engineering careers
2	Familiarity with contemporary issues and disciplines within Electrical Engineering (EE)
3	Understanding of Professional Ethics
4	Practice of Teamwork, Collaboration
5	Developing Presentation Skills (PowerPoint)
6	Professional Communication (with Teams, Professors, Peers, etc.)
7	Understanding Data (Relating data to reality)
8	Manipulating Data to Get Meaningful Information (Excel)
9	Understanding of Units and Dimensions
10	Learning Computer Basics → Hardware, OS, File System, I/O, Peripherals

11	Programming on Computer using MATLAB
12	Modularity, Abstraction and Modeling of Electrical Engineering Devices, Circuits, and Systems
13	Practicing Technical Prose and Writing
14	Knowing Library Resources
15	Math Functions, Inter-dependence
16	EE-specific block diagrams and how to apply algebra to solve basic network equations for resistive circuit elements

### Required Textbooks and Other Course Materials:

**Required:** None

**Optional:**

1. F. T. Ulaby, M. M. Maharbiz, and C. M. Furse, "CIRCUITS," 3rd Edition, National Technology and Science Press, ISBN 978-1-934891-22-3  
<http://www.ntspress.com/publications/circuits-third-edition/>
2. Stephan, Bowman, Park, Sill, and Ohland, "THINKING LIKE AN ENGINEER: An Active Learning Approach," 3rd Edition, Pearson, ISBN: 978-0-13-359321-1  
<http://www.mypearsonstore.com/bookstore/thinking-like-an-engineer-an-active-learning-approach-9780133808483>

### Course Schedule

- Sept 5 – Labor Day Holiday
- Sept 12 – Census Date
- Oct 3 – Project-1 Assigned
- Oct 10 – Midterm Exam
- Oct 17 – Project-1 Demo
- Oct 17 – Project-2 Assigned
- Nov 21 – Project-2 Demo
- Dec 7 – Last Class
- Dec 14 – Final Exam

*("As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Samir Iqbal")*

### Descriptions of major assignments and examinations:

**Examinations:** Two exams will be given. One will be in-class midterm exam (10% of final grade) and the other will be in-class final exam (20% of the grade). Be on time for the exam. No student will be allowed in the classroom 15 minutes after the start of any of the exam.

**Note:** If an exam is canceled due to inclement weather or other unexpected reasons, it will take place in the subsequent scheduled class time unless posted otherwise on the course page on Blackboard. Only pocket calculators will be allowed. No borrowing of items will be allowed in exams (including calculators or erasers). No electronic devices or cell phones will be allowed in the exams. If you have to use any electronic device, first turn in the exam for good, exit the room and then use the device.

**Projects:** Project reports and demonstrations will be essential in the process of understanding and assimilating engineering concepts. Students will be divided into teams.

**Project-1:** Each team will write a one-page report. Instructor will provide the template for this report. The earned grade of Project-1 will carry max 10% towards the final grade for each team member.

**Project-2:** The teams will submit a report and present demonstration of the work. The demo, report, and client grade of Project-2 will count max 30% towards the final grade for all team members. The report has to be written using IEEE Template.

**Project Peer-Evaluation:** A max of 10% score will be assigned towards final grade for each team member. This will be the curved average of the peer-evaluation score for each team member as assigned by the rest of the team members. This will be a direct measurement of the individual team member's contributions to the end products. Each team member will be required to evaluate and assign a series of numbers to each of the team members. No two team members will get same score by one evaluator.

**Quizzes:** Quizzes will be given throughout the course. Quizzes will be conducted through Blackboard. Every student will be required to answer the quizzes on Blackboard.

In case of a failed quiz for any reason, no credit will be given. Some possible reasons for failure may be no attempt, student not familiar with the work, IT problems, power failure, student not familiar with the Blackboard, trying to do the Quiz in 2 or more attempts, etc. Get familiarized with Blackboard as soon as possible. The professor and GTAs are not well-versed with technical troubleshooting of Blackboard. Blackboard has dedicated team to help students with technical difficulties.

Quizzes will count 10% towards the final grade.

**Event Reports:** Each student will be required to write two Event Reports. There will be guest lectures in the course. Pick any two of those guest lectures and write event reports for the respective speakers. The filled and signed Event Report Form will be due at the start of Monday class in the week after the guest lecture. The blank Event Report Form is posted on Blackboard and must be printed out and brought to the lecture to be signed by professor or GTAs.

These speakers will talk on general topics related to engineering and considered appropriate for the level and scope of the course. The two event reports will count for 5% of final course grade. No late event report will be accepted.

**Attendance:** At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I require attendance for all lectures. Timely attendance in this class is expected. The class will start on time and proceed with minimal interruptions. Every student will be required to swipe UTA ID Card (MAV Express card) at the beginning of every class. The students will also be required to sign out of class if leaving the classroom for any reason before the end of class. Each student will receive 3 points for each class to which he/she arrives on time. Only 2 points will be given for each tardy/early departure. Arriving more than 10 minutes late will count as an absence. Problems with the attendance score must be brought to the attention of the GTAs within two weeks of it being reported on Blackboard. Attendance will count for 5% of your course grade.

While UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

Hence, apart from getting low score for attendance, if you skip a class, you will not get full credit for in-class activity or a team activity for that day. The quizzes and exams will also become much more difficult to attempt if you will not be present in the class. Assignments, lecture notes, and other materials will be posted online, however, due to the pace of the lectures, copying someone else's notes may be an unreliable way of making up an absence. You are responsible for all material covered in class regardless of absences.

**Grading:** Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see "Student Support Services," below. The grades of each activity will be posted on Blackboard.

Each student will have the opportunity to earn points over the semester as follows:

Attendance	5%
Midterm Exam	10%
Final Exam	20%
Project-1	10%
Project-2	30%
Peer-Evaluation	10%
Quizzes	10%
Event Reports	5%

Course letter grades will be earned based on the following criteria:

A	=	90% and above
B	=	80% - 89%
C	=	70% - 79%
D	=	60% - 69%
F	=	0% - 59%

**Make-up Exams:** Missed exams will be assigned a grade of 0%, unless proofs of legitimate emergency or medical problems are given prior to the exam or within 24 hours after the exam. In that case, a make up exam will be arranged with the instructor.

**Expectations for Out-of-Class Study:** Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional (3 \* 2 credit hour ) 6 hours per week of their own time in course-related activities, including reading required materials, completing assignments/quizzes, preparing for exams, project meetings, etc.

**Grade Grievances:** Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog.

see <http://catalog.uta.edu/academicregulations/grades/#undergraduatetext>;

For student complaints, see <http://www.uta.edu/deanofstudents/student-complaints/index.php>.

**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://www.uta.edu/aao/fao/>).

**Disability Accommodations:** UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364.

Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability).

Counseling and Psychological Services, (CAPS) [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

**Non-Discrimination Policy:** *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos).*

**Title IX Policy:** The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX) or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or [jmhood@uta.edu](mailto:jmhood@uta.edu).*

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) 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. Additional information is available at <https://www.uta.edu/conduct/>.

**Electronic Communication:** 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>.

**Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

**Student Feedback Survey:** At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** for semester-long courses, 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.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located at the back. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

You are encouraged to subscribe to the MavAlert system that will send information in case of an emergency to your cell phones or email accounts. Anyone can subscribe at <https://mavalert.uta.edu/> or <https://mavalert.uta.edu/register.php>

**Student Support Services:** 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 visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

**The IDEAS Center** (2<sup>nd</sup> Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email [IDEAS@uta.edu](mailto:IDEAS@uta.edu) or call (817) 272-6593.

**The English Writing Center (411LIBR):** The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Our hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate students are also available. Please see [www.uta.edu/owl](http://www.uta.edu/owl) for detailed information on all our programs and services.

The Library's 2<sup>nd</sup> floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation. <http://library.uta.edu/academic-plaza>

**Librarian to Contact:** Mr. Martin Wallace ([martin.wallace@uta.edu](mailto:martin.wallace@uta.edu), 817-272-3924)

<p><b>Emergency Phone Numbers:</b> In case of an on-campus emergency, call the UT Arlington Police Department at <b>817-272-3003</b> (non-campus phone), <b>2-3003</b> (campus phone). You may also dial 911. Non-emergency number 817-272-3381</p>
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