ME5323/AE5323: Engineering Research Methods
Fall Semester 2019
Tues & Th 3:30pm-4:50pm
Room: COBA245C

Instructor:  Prof. Haiying Huang
Office:  315F Woolf Hall
Office Hours:  Walk-in Policy; TTh 2-3pm
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Course Website: UTA Canvas, log in with you UTA ID and password (uta.instructure.com)

Course Prerequisites: Undergraduate education in engineering and science

Textbook: None. Class-notes and handouts will be used.

Learning Objectives: This hands-on course will teach the tools and skills that are essential for conducting graduate research, with an aim to prepare the students for project-based graduate research. The course will be focused on the integration of engineering concepts to complete course projects that imitate mini research projects.

Course Content:
1. MATLAB programming of dynamical systems
2. Labview programming of PC based data acquisition system
3. Experimental validation of theoretical/simulation solutions
4. Basic digital signal processing
5. Data analysis, presentation and documentation
6. Technical writing and presentation
7. Research ethics and research practices

Attendance Policy: Attendance is strongly encouraged.

Grading Policy:
- Three projects 20% each A: 85% and above
- Final report 20% B: 70% ~ 85%
- Final presentation 20% C: 60% ~ 69%
- D: 50% ~ 59%
- F: 49% and below

Late Assignment: Late assignment will receive a 20% penalty per assignment. Special permission for late submission is based on case by case.
**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/aao/fao/).

**Americans with Disabilities Act:**
The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

**Academic Integrity:**
It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

“Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or 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.” (Regents’ Rules and Regulations, Series 50101, Section 2.2)

**Student Support Services Available:**
The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission
and transition, and federally funded programs. Students requiring assistance academically, personally or socially should contact the Office of Student Success Programs at (817) 272-6107 for more information and appropriate referrals.