



## CE 260 Computer Programming in Civil Engineering Spring 2017

**Catalog Description:** (1 unit) This 1-unit course is designed to give students a basic knowledge of MATLAB programming. The course will cover fundamentals of MATLAB operations with arrays (vectors and matrices), it will discuss how to create script files, function files, use loop and conditional statements and present the computed results graphically. Students will be required to write simple programs in MATLAB.

**Prerequisite(s):** MATH 223

**Course Objective:** To give students necessary background on MATLAB programming to be ready for advanced courses in numerical analysis and mechanics for civil engineers.

**Instructor:** Cac M. Dao, Ph.D. – Ph.621-2266 (Message only)

**Class time & place:** Monday - TBD

**Office Hours:** W 2:00pm - 3:00pm, Civil Engineering Bldg. Room 208

**E-mail:** [cmd@email.arizona.edu](mailto:cmd@email.arizona.edu)

**Recitation/Discussion:** Friday - TBD

### Text Book:

*MATLAB: An Introduction with Applications*, Amos Gilat, Pub. John Wiley, Fifth Edition.

### Software

MATLAB – Some online tutorial help is available at the following websites

<http://www.mathworks.com/academia/>

[http://www.mathworks.com/academia/student\\_center/tutorials/index.html?link=body](http://www.mathworks.com/academia/student_center/tutorials/index.html?link=body)

However, if you attend the class regularly and follow the lectures then you do not need any outside help. All registered students can use MATLAB for free. You can download the software from the university website. You can run this software as long as you are a student of the University of Arizona. However, if you want to own the software without any expiration date and would like to use it beyond your student years then you can purchase MATLAB student version that costs about \$100.

### Home Work

Homework problems will be posted on d2l. Homework due date and cutoff time will be announced every time a homework is assigned. The homework submitted after the due date will be marked late but will be graded and returned as long as it is submitted before the cutoff time. Homework submitted after the cutoff time will not be graded and a grade of zero will be assigned.

### Exams & grading policy:

This course has 3 mid-term exams and 1 final exam. Initial grades are assigned based on the following scale - 75% from 3 mid-term exams (25% weight for each exam) 20% weight for homework, and 5% weight for attendance. Students who are satisfied with their initial grades can skip the final exam and their initial grades will be their final grades. Students who are not happy with their course grades can sit for the final exam. After the final exam they will receive the final grade which will be calculated based on the following scale - 30%

weight for the final exam, 45% weight for 3 mid-term exams (15% weight for each mid-term) 20% weight for the homework and 5% weight for the attendance. Students going for the final exam option will have to take the final grade even if it is lower than their initial grades.

Times for the midterm exams will be announced in the class.

Assignment of the final grade will be based on the following scale:

A	90 - 100
B	80 < 90
C	70 < 80
D	60 < 70
E	< 60

Benefit for submitting homework on time: Students who submit their homework on time will be given the higher grade if their total points are near the borderline between two grades.

### **Policy Regarding Absences:**

Textbook and recommended other books cannot substitute the class lectures. Attendance will be taken at every class lecture. Students are expected to attend all lectures and to be on time. Except in emergencies, a student must give the instructor advanced, notice in writing for an excused absence. More than three (3) absences are considered to be "excessive" and will be cause for an administrative drop, which carries with it an automatic grade of "E".

### **Policy Regarding Dishonest Scholastic Work:**

The University's Code of Academic Integrity holds the student fully responsible for the content and integrity of all academic work related to examinations, homework, term projects, laboratory reports, and any other grading component. Furthermore, the ethical principles of the engineering profession as enunciated in the codes of ethics of various engineering professional societies specifically prohibit dishonest work and/or plagiarism. Therefore, in the event that an instructor observes or is made aware of cheating taking place in this course, he/she will take action to make sure that those involved are subjected to the most severe disciplinary sanctions permitted by the University.

### **Accessibility and Accommodations:**

It is the University's goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. You are also welcome to contact Disability Resources (520-621-3268) to establish reasonable accommodations.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Students with disabilities or special needs who require reasonable accommodations to fully participate in course activities or meet course requirements must register with the S.A.L.T. Center (<http://www.salt.arizona.edu/>) or the Disability Resource Center (<http://drc.arizona.edu/>). If you qualify for special accommodations, please email or bring your letter of request to me as soon as possible.

**THESE POLICIES WILL BE STRICTLY ENFORCED WITHOUT EXCEPTION.**