

ENGR 1560 - Engineering Computing

Fall 2026 Syllabus, Section 01, CRN 42384,

Credit hours: 2

Instructor

Siqing Wei

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Public Instructor Information

Instructor Title: Assistant Professor

Instructor Professional Qualifications: Ph.D., Engineering Education (2024); B.S. & M.S. Electrical and Computer Engineering (2017, 2019)

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Course Description

1560. Engineering Computing. Computing skills required in engineering. Structured programming. Engineering problems and open ended design projects are solved in teams with results professionally presented. 1.5 hours lecture, 1.5 hours lab. Prereq.: ENGR 1550 or ENGR 1550H. Prereq. or Coreq.: MATH 1571 or MATH 1571H or MATH 1585H. 2 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	Beginning MATLAB and Simulink: From Beginner to Pro	Sulaymon Eshkabilov	978-1-4842-8747-7
Optional	MATLAB by example: Programming Basics	Munther Gdeisat; Francis Lilley	978-0-12-405212-3

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Proposed Topic	Due/To Prepare for Class
8/24	Syllabus Review; Course introduction Algorithm	
8/31	Flowcharts Matlab basics & scripts	Homework 1 Assigned
9/7	Matlab computation If statements (with conditional operators)	Homework 1 Due Homework 2 Assigned
9/14	ICA Workshop Input & Output Exam	In-Class Activity 1 Assigned and Due Mini-Exam 1 Due
9/21	ICA Workshop	In-Class Activity 2 Assigned and Due
9/28	Loop structure (for and while)	Homework 3 Assigned
10/5	Complex loop structure ICA Workshop	In-Class Activity 3 Assigned Team-Maker Survey Due
10/12	ICA Workshop Teamwork Training	In-Class Activity 3 Due
10/19	Exam Project - Intro & Brainstorming	Mini-Exam 2 Due Team Charter Due



10/26	Project - Brainstorming Project - Algorithm Development	Project Milestone 1 Due
11/2	Project - Algorithm Development	CATME Peer Evaluation 1 Due Project Milestone 2 Due
11/9	User-Defined Function Project - Algorithm Refinement	Team Charter Revision Due Teamwork Reflection 1 Due
11/16	Project - Algorithm Refinement	CATME Peer Evaluation 2 Due Project Milestone 3 Due
11/23	Project - Presentation Preparation	
11/30	Project Presentation	Project Milestone 4 Due Teamwork Reflection 2 Due CATME Peer Evaluation 3 Due

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.