

Lectures: Monday & Wednesday 8:30 – 9:20 AM

Instructor: David M Kender

Office: 247 Russ Engineering Center

Office Hours: As posted and by appointment

Lab Sections: **Section 01:** Tuesday & Thursday 8:30 - 10:10 AM

Section 02: Tuesday & Thursday 8:30 - 10:10 AM

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Office Hours:

TBD

TBD

Course Description: The course consists of lecture classes and computer-based lab and instrumentation-based lab sessions. Topics include: introduction to engineering practices and applications; opportunity to examine different engineering fields; practical hands-on laboratory experience including basic engineering tools such as data acquisition, test equipment, computer aided drafting; freshman design experience with emphasis on teamwork and problem solving.

Course Objectives:

Introduce students to engineering principles through hands-on experience

Sharpen critical thinking, problem solving, and communication skills

Develop skill in using engineering analytical tools and techniques

Foster collaboration among students through cooperative team project activities

Enhance the students' sense of community by encouraging participation and volunteerism

Increase students' probability of successfully completing the undergraduate engineering requirements

Course Requirements and Evaluation: Students are expected to attend and participate in all scheduled classes and laboratory sessions. Course grades will be based on several criteria including a subjective evaluation of effort, learning, and understanding. Class participation during lectures and laboratory sessions as well as contributions to team exercises/projects will be considered in assigning an overall course grade; absences from class will have a detrimental impact on your overall course grade. Please refer to the *Instructional Philosophy* hand-out for specifics regarding overall course perspectives, expectations, and grading philosophy.

Writing Assignments: Fundamentals of Engineering and Computer Science is an Area VI College Component General Education course; and as such, is designated as an intensive writing course. Writing assignments include project reports, reaction papers, position papers, annotated bibliographies, and responses to essay questions. The objectives of the intensive writing provision are to:

- improve students' ability to develop ideas and transmit information for an appropriate audience in an organized and coherent fashion,
- encourage students to use writing as a learning tool to explore and structure ideas in order to articulate thoughts and questions,
- demonstrate the ways in which writing is integral to all disciplines, essential to the learning and conveying of knowledge in all fields.

Exercises and Projects: Exercises and projects (in-class and out-of-class) will be assigned throughout the quarter. Students are encouraged to work collaboratively.

Laboratory Component: The two separate laboratory components constitute an important element of the course. The purpose of the laboratory assignments is to provide hands-on experience in using engineering applications and tools. Separate hand-outs will be available prior to each laboratory session.

Tests: Two tests (midterm and final exam) are scheduled. In general, the tests will be closed-book; however, students are permitted and encouraged to create their own self-generated review notes which may be used during the in-class tests.

Academic Integrity: The instructor fully endorses the Wright State University policy to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth.

Reasonable Accommodations Policy: Any student with a disability that may prevent them from fully demonstrating their abilities should contact me personally as well as the **Office of Disability Services** as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Attendance: Please refer to the EGR 190 Instructional Philosophy handout for specific policies regarding attendance at both lectures and laboratory sessions.

Grading Criteria: The writing intensive component will be graded Pass/Unsatisfactory. The course component grade will be assessed as:

<u>Element</u>	<u>Proportional Value</u>	<u>Percentage</u>	<u>Grade</u>
Assignments, Exercises, and Projects	40%	90 - 100%	A
Laboratory Participation and Reports	40%	80 - 89%	B
Midterm & Final Exam	20% (10% each)	70 - 79%	C
		60 - 69%	D
		< 60%	F