

COMPUTER ENGINEERING Targeted Tasks Rubric

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Yellow / Highlighted = Graded student works collected in Binders for internal & external-ABET review

2018/19 New ABET Learning Outcomes An ability to:

- (ABET-1) Identify, formulate, and **solve** complex engineering problems by applying principles of engineering, science, and mathematics.
- (ABET-2) Apply engineering **design** to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- (ABET-3) **Communicate** effectively with a range of audiences.
- (ABET-4) Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the **impact** of engineering solutions in global, economic, environmental, and societal contexts.
- (ABET-5) Function effectively on a **team** whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- (ABET-6) Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (**LAB's**).
- (ABET-7) Acquire and apply new knowledge as needed, using appropriate **learning** strategies.

Pre-2018/19 ABET Learning Outcomes

- (ABET-a): An ability to apply knowledge of mathematics, science, and engineering.
- (ABET-b): An ability to design and construct experiments, as well as to analyze and interpret data.
- (ABET-c): An ability to design a system, component, or process to meet desired needs.
- (ABET-d): An ability to function on multi-disciplinary teams *if possible, or to draw on the talents of others*
- (ABET-e): Identify, formulate, and solve engineering problems
- (ABET-f): An understanding of professional and ethical responsibility
- (ABET-g): Communicate effectively orally and in writing
- (ABET-h): A broad education necessary to understand the impact of engineering solutions in a global and societal context
- (ABET-i): Recognition of the need for, and an ability to engage in life-long learning
- (ABET-j): Knowledge of contemporary issues
- (ABET-k): An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

H = High Emphasis in Course
M = Medium Emphasis in Course
L = Low or no Emphasis in Course

Solve Problems	Design	Communication	Ethics & Impacts	Teamwork	Labs	How to learn
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2018/19 New ABET Learning Outcomes: 1 2 3 4 5 6 7
Pre-2018/19 ABET Learning Outcomes: aek ck g fhj d bk i

	1	2	3	4	5	6	7	CREDITS	CONTACT HOURS
CS 121 Computer Science I	H	H	M	L	L	H	H	4	4
CS 122 Computer Science II	H	H	M	L	L	H	H	4	4
EGR 191 Introduction to Engineering I LECTURE & LAB	M	M	H	M	M	H	H	4	6
EGR 192 Introduction to Engineering II	H	H	M	H	H	L	M	2	4
EGR 210 Circuit Analysis LECTURE & LAB	H	H	M	L	L	H	L	4	6
EGR/CS 222 Systems Programming	H	H	M	L	L	H	H	4	4
<u>EGR/CS 230 Microcomputer Architecture (Board level architectures & technologies, Intro to Comp Engr)</u>	L	M	M	H	L	L	H	4	4
EGR 310 Signals and Systems	H	M	M	L	L	H	L	4	4
EGR 311 Electronics LECTURE & LAB	H	M	L	L	M	H	M	4	6
<u>EGR/CS 332 Computer Organization & Architecture (Digital Design I & Intro to Assembly Language)</u>	H	H	M	L	L	L	M	4	4
<u>EGR/CS 333 Digital Circuits & Interfacing LECTURE & LAB (Digital Design II, Assmby Language, Interfacing)</u>	H	H	H	L	H	H	M	4	6
EGR 410 Control Systems LECTURE & LAB	H	M	M	M	M	H	L	4	4
EGR/CS 422 Operating Systems	H	H	M	L	L	H	H	4	4
<u>EGR/CS 433 Advanced Computer Engineering LECTURE & LAB</u>	H	H	H	L	H	H	M	4	6
<u>Elective: EGR/CS434 Robotics & Machine Intel, CS342 Networking, or EGR315 Communication Theory</u>	Variable							4	4
<u>EGR 491 Senior Project in Engineering I</u>	H	H	H	M	H	H	M	2	
<u>EGR 492 Senior Project in Engineering II</u>	H	H	H	M	H	H	M	2	