

Engineering

	1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT)	2. an ability to 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	3. an ability to communicate effectively with a range of audiences (CC: OC, WC, IL)	4. an ability to 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	5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR)	7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	
CSC 2054 - Data Structures and Algorithms and CSC 2054L - Data Structures and Algorithms Lab	R							CE
EGR1003 - Introduction to Engineering I and EGR1003L - Introduction to Engineering I Lab			I (OC)		I	I		Core
EGR 1023 - Introduction to Engineering II and EGR 1023L - Introduction to Engineering II Lab		I	I (WC)	I	I		I	Core
EGR 1043 - Introduction to Computer Programming and EGR 1043L - Introduction to Computer Programming Lab	I			I				Core
EGR 1054 - Objects and Elementary Data Structures and EGR 1054L - Objects and Elementary Data Structures Lab	I							CE
EGR 2014 - Engineering Mechanics: Statics and EGR 2014L - Engineering Mechanics: Statics Lab	R		R (WC)	R	R	I		EE and ME
EGR 2024 - Circuit Analysis and EGR 2024L - Circuit Analysis Lab	R	R	I (WC, IL)	R	R			Core
EGR 3003 - Python and UNIX	R							EE and ME
EGR 3014 - Operating Systems	R							CE
EGR 3023 - Software Engineering	M	R						CE
EGR 3034 - Mechanics of Materials and EGR 3034L - Mechanics of Materials Lab	M		R (WC)	R	R			ME
EGR 3043 - Analytical Mechanics: Dynamics	M							ME
EGR 3053 - Analog Electronics and EGR 3053L - Analog Electronics Lab			R (WC)					CE and EE
EGR 3062 - Electricity, Magnetism, and Waves I	M							EE
EGR 3073 - Networking and Security				R*				CE
EGR 3083 - Electricity, Magnetism, and Waves II				R			R	EE
EGR 3093 - Digital Electronics and EGR 3093L - Digital Electronics Lab		R			R			CE and EE
EGR 3113 - Measurement and Instrumentation		R	R(OC)		R	R		EE and ME
EGR 3123 - Mechanical Engineering Applications and EGR3123 - Mechanical Engineering Applications Lab					R	R	R	ME
EGR 4003 - Information and Computer Security	M							CE
EGR 4013 - Thermodynamics	M							ME
EGR4043 - Embedded Systems and Robotics and EGR4043L - Embedded Systems and Robotics Lab	M						R	EE and ME
EGR 4054 - Computer Architecture and Assembly Language					M		R	CE
EGR 4063 - Solid State Engineering	M							EE and ME
EGR 4072 - Senior Project I		M	M (OC, WC, IL)	M	M		M	Core
EGR 4082 - Senior Project II		M	M (OC, WC, IL)		M		M	Core
EGR 4092 - Internship in Engineering	M	M	M	M			R	Core
EGR 4103 - Electrical Signals and Systems	M	R	R (WC)				R	CE and EE
MTH 1064 - Calculus I and MTH 1064L - Calculus I Lab	I							Core
MTH 1074 - Calculus II and MTH 1074L - Calculus II Lab	I							Core
MTH 2074 - Calculus III	R							Core
MTH 3033 - Differential Equations	R							Core
MTH 3063 - Calculus Based Statistics With R	R					R		Core
MTH 3083 - Mathematical Probability and Statistics	R					R*		Core
PHY 2044 - University Physics I and PHY 2044L - University Physics I Lab	I							Core
PHY 2054 - University Physics II and PHY 2054L - University Physics II Lab	I							Core
PHY 3003 - Modern Physics and PHY 3003L - University Physics II Lab	R		R (WC)			I		EE and ME

Notes

Red = Artifact for Assessment Plan

CC: Core Competency

OC: Oral Communication

WC; Written Communication

IL: Information Literacy

* Discuss with instructor

** Concern that students need more on testing experiments