

American University of Iraq, Sulaimani

BSc. In Energy Engineering Program Degree Progress Guide (Fall 2022 - Onwards)



Below is the natural sequence of Energy Engineering program courses designed for students to register per semester. Other degree requirements and comprehensive details are to be found in the AUIS Academic Catalog.

Course Code and Description	Credits	Prerequisite(s)
1st Semester		
ENGR 230 - Engineering Drawing (Major)	3	None
CIV 101 - The Ancient World History (Core)	3	None
ENG 101 - Argument (Core)	3	None
MTH 133 - Precalculus (Core)	3	None
CHEM 232 + CHEML 232 - Chemistry I + Chemistry Lab I (Core)	4	None
Total Credits	16	
2nd Semester	10	
ENGR 231 - Fabrication Shop (Team-based Problem Solving) (Major)	2	ENGR 230
ENG 102 - Critical Reading (Core)	3	ENG 101
MTH 232 - Calculus I (Core)	3	MTH 133
ENGR 354 - Materials Science (Major)	3	CHEM 232 + CHEML 232
Core Elective: Humanities, Social Science (Core)	3	See Course Description
Total Credits		occ oodisc bescription
3rd Semester	14	
	3	MTH 232
MTH 233 - Calculus II (Core)	3	30 Credits and above
CIV 203 - Civilization III: The Ancient World (Humanities) (Core)	3	30 Credits and above
PHYS 232 + PHYSL 232 - Calculus Based Physics I + Calculus Based Physics Lab I (Core)	4	MTH 232
MTH 340 - Linear Algebra (Core)	3	Second Semester Standing
ENG 203 - Research & Project - Writing (Core)	3	ENG 102
Total Credits	16	
4th Semester		
MTH 332 - Differential Equations (Core)	3	MTH 233
MTH 331 - Calculus III (Core)	3	MTH 233
ENGR 344 - Mechanics I (Major)	3	PHYS 232 + PHYSL 232
ENGR 352 - Thermodynamics (Major)	3	PHYS 232 + PHYSL 232
PHYS 233 + PHYSL 233 - Calculus Based Physics II + Calculus Based		BUNG and BUNGLOOD
Physics Lab II (Core)	4	PHYS 232 + PHYSL 232
Total Credits	16	
5th Semester	4	ENOD 244 MTH 222
ENGR 356 - Fluids (Major)	4	ENGR 344, MTH 233
ENGR 358 - Mechanics of Materials (Major)	3	ENGR 344
ENGR 390 - Circuits (Major)	4	PHYS 233 + PHYSL 233
ENGR 244 - Engineering Computing and Numerical Analysis (Major)	3	MTH 332, MTH 331
ENGR 425 - Energy Storage System (Major) Total Credits	3	ENGR 354
6th Semester	17	
ENGR 420 - Turbomachinery (Major)	3	ENGR 356, ENGR 352
ENGR 313 - Measurements Laboratory (Major)	2	ENGR 356, ENGR 390
ENGR 348 - Mechanics II (Major)	3	ENGR 344, MTH 340
ENGR 452 - Transport Phenomena (Major)	3	ENGR 356, MTH 332
STT 342 - Engineering Statistics (Major)	3	ENGR 244
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Summer/Winter ENGR 490 - Engineering Internship (Major) 3 Senior Standing (to be taken alone) 7th Semester ENGR 455 - Introduction to Petroleum Engineering (Major) 3 ENGR 356 ENGR 366 - Applied Electronics (Major) 3 ENGR 390 ENGR 444 - Engineering Project Management (Major) 3 STT 342 ENGR 461 - System Dynamics and Control (Major) 3 ENGR 348 ENGR 491 - Design I (Major) 3 ENGR 313, ENGR 358, ENGR 231, Senior Standing Total Credits 8th Semester ENGR 454 - Process Engineering (Major) 3 ENGR 455 ENGR 457 - Renewable Energy (Major) 3 ENGR 461 ENGR 492 - Design II (Major) 2 ENGR 491, ENGR 366, ENGR 444 Engineering Elective 3 Senior Standing ENGR 484 - Engineering Laboratory (Major) 3 ENGR 313, STT 342 Total Credits		T 1 10 11			
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Core 48 Credits (15 Courses)

Major 74 Credits (25 Courses)

Engineering Electives 9 Credits (3 Courses)

General Tips and Recommendations

Engineering electives are 300+ engineering courses.

131 Credits (43 Courses)

Varied Degree Paths:

Student degree paths may vary slightly from this form. If academic record differs from the courses listed in this form, please contact the Registration and Records Office during the advising week for clarification. Independent study, transfer credits or other unique circumstances are typically accounted for in the elective category.