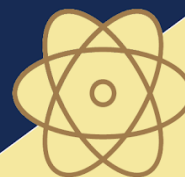




American University of Iraq, Sulaimani

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	
CHEM 232 + CHEML 232 - Chemistry I + Chemistry Lab I (Core)	4	None	
MTH 232 - Calculus I (Core)	3	None	
ENG 101 - Argument (Core)	3	None	
CIV 101 - The Ancient World History (Core)	3	None	
Total Credits	16		
2nd Semester			
ENGR 231 - Fabrication Shop (Team-based Problem Solving) (Major)	3	ENGR 230	
PHYS 232 + PHYSL 232 - Calculus Based Physics I + Calculus Based Physics Lab I (Core)	4	MTH 232	
MTH 233 - Calculus II (Core)	3	MTH 232	
MTH 340 - Linear Algebra (Core)	3	MTH 232	
ENG 102 - Critical Reading (Core)	3	ENG 101	
Total Credits	16		
3rd Semester			
PHYS 233 + PHYSL 233 - Calculus Based Physics II + Calculus Based Physics Lab II (Core)	4	PHYS 232 + PHYSL 232	
MTH 331 - Calculus III (Core)	3	MTH 233	
ENGR 344 - Mechanics I (Major)	3	PHYS 232 + PHYSL 232	
ENGR 244 - Engineering Computing and Numerical Analysis (Major)	3	MTH 340	
ENG 203 - Research & Project - Writing (Core)	3	ENG 102	
Total Credits	16		
4th Semester			
ENGR 313 - Measurements Laboratory (Major)	3	PHYS 233 + PHYSL 233	
ENGR 390 - Circuits (Major)	3	PHYS 233 + PHYSL 233	
MTH 332 - Differential Equations (Core)	3	MTH 331	
ENGR 356 + ENGR 356L - Fluid Mechanics (Major) + Fluids Laboratory	4	ENGR 344	
ENGR 352 - Thermodynamics (Major)	3	PHYS 232 + PHYSL 232	
Total Credits	16		
5th Semester			
ENGR 354 - Materials Science (Major)	3	ENGR 231	
ENGR 358 + ENGR 358L - Mechanics of Materials (Major) + Mechanics of M	4	ENGR 344	
STT 342 - Engineering Statistics (Major)	3	ENGR 244	
CIV 203 - Civilization III: The Ancient World (Humanities) (Core)	3	CIV 101	
ENGR 425 - Energy Storage Systems (Major)	3	ENGR 390	
Total Credits	16		
6th Semester			
ENGR 453 - Applications of Thermodynamics (Major)	3	ENGR 352	
ENGR 455 - Introduction to Petroleum Engineering (Major)	3	ENGR 356	
ENGR 348 - Mechanics II, Dynamics (Major)	3	ENGR 344 + Corequisite: MTH 332	
ENGR 452 - Transport Phenomena (Major)	3	MTH 332	
Core Elective: Humanities, Social Science (Core)	3	See Course Description	
Total Credits	15		

7th Semester

Engineering Elective	3	See Course Description	
ENGR 366 - Applied Electronics (Major)	3	ENGR 390	
ENGR 444 - Engineering Project Management (Major)	3	ENGR 231	
ENGR 461 - System Dynamics and Control (Major)	3	ENGR 390 + MTH 332	
ENGR 491 - Design I (Major)	3	ENG 203 + 75 Credit Hours	
Total Credits		15	

8th Semester

ENGR 454 - Process Engineering (Major)	3	ENGR 455	
ENGR 457 - Renewable Energy (Major)	3	ENGR 390	
ENGR 492 - Design II (Major)	3	ENGR 491	
Engineering Elective	3	See Course Description	
ENGR 484 - Engineering Laboratory (Major)	3	ENGR 313	
Total Credits		15	

9th Semester

Engineering Elective	3	See Course Description	
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Summer/Winter

ENGR 490 - Engineering Internship (Major)	1	Senior Standing (to be taken alone)	
Program Total Credits		129	

Program Credits

Core	45 Credits (14 Courses)
Major	75 Credits (25 Courses)
Engineering Electives	9 Credits (3 Courses)
Total	129 Credits (42 Courses)

General Tips and Recommendations

Engineering electives are 200+ engineering 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.