

## American University of Iraq, Sulaimani

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



Below is the natural sequence of Civil 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  |         | · · · · · · · · · · · · · · · · · · · |
|   | 3       | None                                  |
| R 100 - Reading (Core)  |         | None                                  |
| W 100 - Writing (Core)  | 3       | None                                  |
| MTH 133 - Precalculus (Core)  | 3       | None                                  |
| ENGR 230 - Engineering Drawing (Major)  | 3       | None                                  |
| CHEM 232 + CHEML 232 - Chemistry I + Chemistry Lab I (Core)                           | 4       | None                                  |
| Total Credits   | 16      |                                       |
| 2nd Semester  |         |                                       |
| Core Elective: Humanities, Social Science (Core)                                      | 3       | See Course Description                |
| CIV 101 - The Ancient World History (Core)  | 3       | W 100, R 100                          |
| ENG 101 - Argument (Core)   | 3       | W 100, R 100                          |
| MTH 232 - Calculus I (Core)   | 3       | MTH 133 or Placement Test             |
| ENGR 231 - Fabrication Shop (Team-based Problem Solving) (Major)                      | 2       | ENGR 230                              |
| Total Credits   | 14      |                                       |
| 3rd Semester  |         |                                       |
| ENGR 248 - Engineering Geology (Major)  | 3       | CHEM 232 + CHEML 232                  |
| ENG 102 - Critical Reading (Core)   | 3       | ENG 101                               |
| 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 233 - Calculus II (Core)  | 3       | MTH 232                               |
| Total Credits   | 16      |                                       |
| 4th Semester  |         |                                       |
| ENGR 344 - Mechanics I (Major)  | 3       | PHYS 232 + PHYSL 232                  |
| MTH 331 - Calculus III (Core)   | 3       | MTH 233                               |
| ENGR 373 - Material of Construction (Major)   | 4       | CHEM 232 + CHEML 232                  |
| MTH 340 - Linear Algebra (Core)   | 3       | Second Semester Standing              |
| PHYS 233 + PHYSL 233 - Calculus Based Physics II + Calculus Based                     |         |                                       |
| Physics Lab II (Core)   | 4       | PHYS 232 + PHYSL 232                  |
| Total Credits   | 17      |                                       |
| 5th Semester  | 2       | MTH 222                               |
| MTH 332 - Differential Equations (Core)   | 3       | MTH 233                               |
| ENGR 356 - Fluids (Major)   | 4       | ENGR 344, MTH 233                     |
| ENGR 475 - Soil Mechanics (Major)   | 3       | ENGR 248                              |
| ENGR 348 - Mechanics II (Major)   | 3       | ENGR 344, MTH 340                     |
| ENGR 358 - Mechanics of Materials (Major)   | 3       | ENGR 344                              |
| Total Credits   | 16      |                                       |
| 6th Semester  |         | ENCD 250 FNCD 240                     |
| ENGR 473 - Structural Analysis (Major)  | 3       | ENGR 358, ENGR 348                    |
| ENGR 430 - Engineering Hydrology (Major)  | 3       | ENGR 356                              |

| ENGR 244 - Engineering Computing and Numerical Analysis (Major) | 3  | MTH 332, MTH 331                    |
|---|----|-------------------------------------|
| ENG 203 - Research & Project - Writing (Core)                   | 3  | ENG 102                             |
| ENGR 476 - Concrete Design I (Major)                            | 3  | ENGR 475, ENGR 373                  |
| Total Credits   | 15 |                                     |
| 7th Semester  |    |                                     |
| ENGR 474 - Steel Design (Major)                                 | 3  | ENGR 473                            |
| ENGR 486 - Concrete Design II (Major)                           | 3  | ENGR 476                            |
| ENGR 477 Foundation Design (Major)                              | 3  | ENGR 476                            |
| ENGR 370 - Surveying (Major)                                    | 2  | MTH 233                             |
| STT 342 - Engineering Statistics (Major)                        | 3  | ENGR 244                            |
| Total Credits   | 14 |                                     |
| Summer/Winter   |    |                                     |
| ENGR 490 - Engineering Internship (Major)                       | 3  | Senior Standing (to be taken alone) |
| 8th Semester  |    |                                     |
| ENGR 493 - Highway Engineering and Design (Major)               | 3  | ENGR 370                            |
| ENGR 485 - Hydraulic Structures (Major)                         | 3  | ENGR 430                            |
| ENGR 444 - Engineering Project Management (Major)               | 3  | STT 342                             |
| ENGR 491 - Design I (Major)                                     | 3  | ENG 203, Senior Standing, ENGR 231  |
| ENGR 484 - Engineering Laboratory (Major)                       | 3  | STT 342                             |
| Total Credits   | 15 |                                     |
| 9th Semester  |    |                                     |
| Engineering Elective  | 3  | Senior Standing                     |
| Engineering Elective  | 3  | Senior Standing                     |
| Engineering Elective  | 3  | Senior Standing                     |
| ENGR 492 - Design II (Major)                                    | 2  | ENGR 491, ENGR 484, ENGR 444        |
| Total Credits   | 11 |                                     |
| Program Credits   |    |                                     |
| Core 54 Credits (17 Courses)                                    |    |                                     |
| Major 74 Credits (25 Courses)                                   |    |                                     |
| Engineering Elective 9 Credits (3 Courses)                      |    |                                     |
| Total 137 Credits (43 Courses)                                  |    |                                     |

## General Tips and Recommendations

Engineering electives are 300+ 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.

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