

# B.S. CIVIL ENGINEERING

## Plan of Study 2021-2022



|        |   |  |   |
|--------|---|--|---|
| Year 1 | <b>Fall</b>   |  | <b>Spring</b>   |
|        | FYEX Foundation for College Success                         |  |   |
|        | ENGR 100 (FYE) Introduction to Engineering Design           |  | ENGR 162 Intro to Engineering Graphics                |
|        | ENGR 160 Surveying  |  | GEOL 163 Applied Geology (Lab)                        |
|        | MATH 113 Calculus I   |  | MATH 114 Calculus II                                  |
|        | CORE requirement  |  | PHYS 211 Classical Physics I                          |
|        | CORE requirement  |  | CORE requirement                                      |
|        | <b>January-term</b>   |  | <b>Summer</b>   |
|        | CORE requirement  |  |   |
| Year 2 | <b>Fall</b>   |  | <b>Spring</b>   |
|        | ENGR 220 Statics  |  | ENGR 221 Mechanics of Materials (Lab)                 |
|        | MATH 210 Introduction to Differential Equations & Systems   |  | ENGR 222 General Dynamics                             |
|        | PHYS 212 Classical Physics II                               |  | CHEM 109 General Chemistry for Engineers (Lab)        |
|        | CORE requirement  |  | CORE requirement                                      |
|        | <b>January-term</b>   |  | <b>Summer</b>   |
|        | CORE requirement  |  |   |
| Year 3 | <b>Fall</b>   |  | <b>Spring</b>   |
|        | ENGR 362 Construction & Engineering Economic Analysis (Lab) |  | ENGR 363 Construction Materials (Lab)                 |
|        | ENGR 364 Structural Analysis                                |  | ENGR 365 Design of Steel & Concrete Structures (Lab)  |
|        | STAT 220 Statistics I (Lab)                                 |  | ENGR 368 Fluids Mechanics for Civil Engineering (Lab) |
|        | CORE requirement  |  | CORE requirement                                      |
|        |   |  |   |

\* arrow indicates that the two courses can be interchanged

\* this illustrates just one example of how all courses could be taken within a 4-year plan

**Complete Course Listing:**

**Engineering Courses:**

ENGR 100 Introduction to Engineering Design (2 credits)  
ENGR 160 Surveying (2 credit)  
ENGR 162 Introduction to Engineering Graphics (1 credit)  
ENGR 220 Statics (4 credits)  
ENGR 221 Mechanics of Materials (4 credits)  
ENGR 222 General Dynamics (2 credits)  
ENGR 362 Construction and Engineering Economic Analysis (4 credits)  
ENGR 363 Construction Materials (4 credits)  
ENGR 364 Structural Analysis (4 credits)  
ENGR 365 Design of Steel and Concrete Structures (Lab) (4 credits)  
ENGR 368 Fluid Mechanics for Civil Engineering (4 credits)  
ENGR 463 Soil Mechanics and Foundations (4 credits)  
ENGR 466 Transportation Engineering (4 credits)  
ENGR 467 Water Resources (4 credits)  
ENGR 468 Environmental Engineering (4 credits)  
ENGR 480 Engineering Design Clinic 1 (4 credits)  
ENGR 481 Engineering Design Clinic II (4 credits)  
ENGR Elective (2 credits)  
61 Engineering Credits

**Allied Requirements:**

MATH 113 – Calculus I (4 credits)  
MATH 114 – Calculus II (4 credits)  
MATH 210 – Introduction to Differential Equations and Systems (4 credits)  
PHYS 211 – Classical Physics I (4 credits)  
PHYS 212 – Classical Physics II (4 credits)  
GEOL 163 – Applied Geology (4 credits)  
CHEM 109 – General Chemistry (4 credits)