

## 2025-2026 Academic Year

Requirements Effective Fall 2023

Min. Grad. Req: 120 Hrs., 30 UD Hrs., 2.0 GPA Institutional & Cumulative

Reviewed by: \_\_\_\_\_

Date: \_\_\_\_\_

### (B.S.E.) ENGINEERING (CHEMICAL & BIOCHEMICAL)

Name & Student ID # \_\_\_\_\_

Expected Graduation Date: \_\_\_\_\_

#### General Education Requirements

- 3 THEO 110 Intro to Christianity
- 3 BLIT 210 Christian Scriptures
- 3 CMIN 310 Christian Living
- 2-3 Approved Stewardship Course\* \_\_\_\_\_
- 3 ENGL 109 College Writing I
- 3 COMM 105 Fundamentals of Communication
- 3 HIST 200 Western Civilization
- 3 Approved Social Science Course\* \_\_\_\_\_
- 6 Approved Humanities Courses\*

**Select 3 hours from two different areas:**

Fine Arts, Literature, Philosophy, or SPAN 212

- 3-8 Elementary Foreign Language I & II (SPAN 111/112 or FREN 101/102)  
**OR** an approved Intercultural Understanding course\*

- 3-4 BIOL 201 or approved biological science course\*

\* See [olivet.edu/registrar](http://olivet.edu/registrar) for an approved list of courses

- Students completing a minor must complete a minimum of 6 unique hours between major and minor.
- Students pursuing a double major or greater must complete a minimum of 20 unique hours (excludes supporting courses)

#### Required Supporting Courses (31 Hours)

- 4 CHEM 103 General Chemistry I (GER: PHYS SCI)
- 4 CHEM 104 General Chemistry II
- 4 MATH 147 Calculus I (GER: MATH)
- 4 MATH 148 Calculus II
- 4 MATH 261 Calculus III
- 3 MATH 357 Differential Equations
- 4 PHYS 201 General Physics I (GER: PHYS SCI)
- 4 PHYS 202 General Physics II

**All required Engineering and supporting Math and Science courses must be completed with a grade of C or better to be eligible for graduation.**

#### Major: 60-69 hours (2.0 GPA Required)

- 3 ENGR 101 Engineering Design I
- 3 ENGR 102 Engineering Design II
- 3 ENGR 107 Computational Engineering **OR**  
COMP 150 Programming: Control Structures
- 3 ENGR 401 Senior Design Project I/Tech Comm (GER: CW2)
- 2 ENGR 402 Senior Design Project II/Exprmt Design
- 3 ENGR 403 Engineering Economics

#### Chemical and Biochemical Concentration:

- 5 CHEM 311 Organic Chemistry I
- 4-6 ENGR 212 Engineering Mechanics **OR**  
ENGR 213 Statics **AND**  
3 ENGR 215 Dynamics **OR**  
3 ENGR 216 Mechanics of Materials
- 3 ENGR 220 Electrical Circuits and Systems
- 4 ENGR 261 Material and Energy Balances
- 2 ENGR 300 Thermofluids Engineering Lab
- 4 ENGR 315 Fluid Mechanics
- 4 ENGR 323 Automatics Controls
- 3 ENGR 362 Chemical Thermodynamics
- 2 ENGR 400 Advanced Engineering Lab
- 3 ENGR 415 Heat Transfer
- 3 ENGR 461 Chemical & Biochemical Separation Engineering
- 3 ENGR 462 Chemical & Biochemical Reactor Engineering

**In addition to the required courses above, choose one advanced science elective below:**

- 4 BIOL 356 Microbiology
- 4 CHEM 301 Quantitative Analysis
- 5 CHEM 312 Organic Chemistry
- 4 CHEM 335 Biochemistry
- 4 CHEM 410 Inst. Method Analysis
- 4 CHEM 482 Physical Chemistry Survey
- 4 CHEM 493 Advanced Physical Chemistry
- 0-6 ENGR 498 Research in Engineering