

B.S. MECHANICAL ENGINEERING

(Entrepreneurship Minor)

Plan of Study

| | | | | |
|---------------------|--|------------------|--|---|
| Year 1 | Fall | | Spring | |
| | FYEX Foundation for College Success | | | |
| | ENGR 100 (FYE) Introduction to Engineering Design | | CISC 130 Introduction to Programming & Problem Solving Science (Lab) | |
| | ENGR 170 Mechanical Engineering Graphics | | PHYS 211 Classical Physics I | |
| | MATH 113 Calculus I | | MATH 114 Calculus II | |
| | CORE requirement | | ↔ | ENTR 220 Entrepreneurial Thinking |
| | CORE requirement | | | |
| January-term | | Summer | | |
| CORE requirement | | CORE requirement | | |
| Year 2 | Fall | | Spring | |
| | ENGR 220 Statics | | ENGR 221 Mechanics of Materials (Lab) | |
| | MATH 200 Multi-Variable Calculus | | ↔ | MATH 210 Introduction to Differential Equations & Systems |
| | PHYS 212 Classical Physics II | | ↔ | CHEM 109 General Chemistry for Engineers (Lab) |
| | CORE requirement | | ↔ | ENTR 250 Fundamentals of Innovation |
| | CORE requirement | | | |
| Year 3 | Fall | | Spring | |
| | ENGR 255 Fabrication Skills (Lab) | | | |
| | ENGR 322 Dynamics (Lab) | | ↔ | ENGR 350 Introduction to Electronics (Lab) |
| | ENGR 371 Manufacturing Processes & Statistical Control | | ↔ | ENGR 320 Machine Design & Synthesis (Lab) |
| | ENGR 381 Thermodynamics (Lab) | | ENGR 383 Fluid Mechanics (Lab) | |
| | ENTR XXX Entrepreneurship Elective | | ENTR 330 Environmental Sustainability & Innovation | |
| | CORE requirement | | CORE requirement | |
| Year 4 | Fall | | Spring | |
| | ENGR 480 Engineering Design Clinic I | | ENGR 481 Engineering Design Clinic II | |
| | ENGR 410 Control Systems & Automation (Lab) | | ↔ | ENGR 384 Heat Transfer (Lab) |
| | ENGR 361 Engineering Materials (Lab) | | ↔ | CORE requirement |
| | ENTR XXX Entrepreneurship Elective | | ↔ | CORE requirement |
| | January-term | | Summer | |
| 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 (2 credits)
ENGR 170 – Mechanical Engineering Graphics (2 credits)
ENGR 220 – Statics (4 credits)
ENGR 221 – Mechanics of Materials (4 credits)
ENGR 255 – Fabrication Skills (0 credits)
ENGR 320 – Machine Design and Synthesis (4 credits)
ENGR 322 – Dynamics (4 credits)
ENGR 350 – Introduction to Electronics (4 credits)
ENGR 361 – Engineering Materials (4 credits)
ENGR 371 – Manufacturing Processes and Statistical Control (4 credits)
ENGR 381 – Thermodynamics (4 credits)
ENGR 383 – Fluid Mechanics (4 credits)
ENGR 384 – Heat Transfer (4 credits)
ENGR 410 – Control Systems and Automation (4 credits)
ENGR 480 – Engineering Design Clinic I (4 credits)
ENGR 481 – Engineering Design Clinic II (4 credits)
*4 Credits of Engineering Electives
60 Engineering Credits

Entrepreneurship Minor Requirements:

ENTR 220 Entrepreneurial Thinking (4 credits)
ENTR 250 Fundamentals of Innovation (4 credits)
*ENTR 330 Environmental Sustainability & Innovation (4 credits)

Choose two elective courses:

ENTR 340 Social Entrepreneurship (4 credits)
ENTR 348 Franchise Management (4 credits)
ENTR 349 Family Business Ownership (4 credits)
ENTR 360 Creativity & Change (4 credits)
ENTR 370 Entrepreneurial Financial Resource Management (4 credits)
ENTR 371 Silicon Valley & Entrepreneurial Thinking (4 credits)
ENTR 380 Entrepreneurship in Practice (4 credits)
ENTR 490 Topics (4 credits)

Or choose one elective course and one from the list below:

MUSC 363 Emerging Models in Music Industry (4 credits)
MUSC 480 Music Business Seminar (4 credits)
SOWK 430 Development & Fundraising for Social Service Agencies (4 credits)
Any 300-level Opus College of Business course, with approval from Entrepreneurship department chair

*Courses with asterisk are requirements for both the Mechanical degree and the Entrepreneurship minor

20 Entrepreneurship Minor Credits (4 credits are included in the mechanical engineering major requirements)

Allied Requirements:

MATH 113 – Calculus I (4 credits)
MATH 114 – Calculus II (4 credits)
MATH 200 – Multi-Variable Calculus (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)
CHEM 109 – General Chemistry for Engineers (4 credits)
CISC 130 – Introduction to Programming and Problem Solving in the Sciences (4 credits)
36 Allied Requirement Credits

University of St. Thomas Core Curriculum:

FYEX Foundation for College Success (1 credit)
Language and Culture (0-8 credits)
Literature and Writing (4 credits)
Philosophy and Theology (12 credits)
Social Analysis (4 credits)
Fine Arts (4 credits)
Historical Studies (4 credits)
Integrations in the Humanities (8 credits)
Some of these courses must satisfy the flagged requirements; check your degree evaluation
45 Core Curriculum Credits