

Engineering Science- Engineering Management Specialization Curriculum

| Level | Freshman Year | | | | | |
|----------|---------------|-------------------------------|------------|------------------|-------------------------------------|------------|
| Semester | Fall Term | | | Spring Term | | |
| | Course Code | Description | Units | Course Code | Description | Units |
| | CHE201 | General Chemistry | 1 | MAT128 | Calculus B | 1 |
| | MAT127 | Calculus A | 1 | PHY202 | General Physics II | 1 |
| | PHY201 | General Physics I | 1 | College Core I | Literary, Visual or Performing Arts | 1 |
| | FYS | First Year Seminar | 1 | CSC217 or CSC220 | Computer Science | 1 |
| | ENG144 | Fundamentals of Engineering D | 0.5 | ENG145 | Intro. to Eng. Science and Design | 0.5 |
| | ENG095 | Introduction to Engineering | 0 | | | |
| | | | 4.5 | | | 4.5 |

| Level | Sophomore Year | | | | | |
|----------|----------------|-------------------------------|----------|---------------|--|------------|
| Semester | Fall | | | Spring | | |
| | Course Code | Description | Units | Course Code | Description | Units |
| | ENG212 | Circuit Analysis | 1 | MAT229 | Multivariable Calculus | 1 |
| | ENG232 | Manufacturing Processes | 1 | ENG214 | Circuit Analysis Laboratory | 0.5 |
| | ENG272 | Advanced Engineering Maths I | 1 | ECO101 or 102 | Principles of Micro or Macro-economics | 1 |
| | ENG152 | Engineering Materials Science | 1 | MEC251 | Strength of Materials | 1 |
| | ENG222 | Statics | 1 | ENG262 | Dynamics | 1 |
| | | | 5 | | | 4.5 |

| Level | Junior Year | | | | | |
|----------|-----------------------|------------------------------|----------|-----------------------|-----------------------------------|------------|
| Semester | Fall | | | Spring | | |
| | Course Code | Description | Units | Course Code | Description | Units |
| | Engineering Elective* | Engineering Elective I | 1 | FIN201 | Fundamentals of Financial Methods | 0.5 |
| | ENG322 | Thermodynamics I | 1 | Engineering Elective* | Engineering Elective II | 1 |
| | ENG342 | Advanced Eng. Maths II | 1 | ENG352 | Control Systems | 1 |
| | MKT201 | Marketing Principles | 0.5 | ENG348 | Systems Engineering and Economics | 1 |
| | MGT201 | Managing in the 21st Century | 0.5 | ENG094 | Engineering Seminar IV | 0 |
| | ENG093 | Engineering Seminar III | 0 | Engineering Elective* | Engineering Elective III | 1 |
| | | | 4 | | | 4.5 |

| Level | Senior Year | | | | | |
|----------|-----------------|--------------------------------|----------|------------------|--|------------|
| Semester | Fall | | | Spring | | |
| | Course Code | Description | Units | Course Code | Description | Units |
| | ENG354 | Control Systems Laboratory | 0.5 | ENG452 | Project Management | 1 |
| | ACC201 | Financial Accounting | 1 | ELC/MEC496* | Senior Design Project II | 0.5 |
| | ELC/MEC495* | Senior Design Project I | 0.5 | College Core III | Social Justice/Multidisciplinary Perspective | 1 |
| | IDS252 | Society, Ethics and Technology | 1 | BUS200 | Legal Regulatory Environment | 1 |
| | College Core II | Historical Perspective | 1 | College Core IV | Social Justice/Multidisciplinary Perspective | 1 |
| | ENG099 | Senior Profesional Seminar | 0 | | | |
| | | | 4 | | | 4.5 |

35.5

| Technical Electives | | | Preq | | |
|---------------------------|-------------------------------|---|--|--|--|
| I | MEC311 or ENG312 | Mechanical Design Analysis I | MEC251 | | |
| II | ELC251 or MEC361 | Digital Circuits and Microproce Electronics | CSC217, ENG212 | | |
| III | ELC411 or MEC371 or Any | Fluid Mechanics Embedded Systems Thermodynamics II Other electives | ENG212, ENG272 ENG222, ENG272 ELC251, ENG312 ENG322 | | |
| Technical Electives-Other | | | | | |
| | ELC321 | Signals and Systems | ENG212 | | |
| | ELC361 | Engineering Electromagnetics | ENG212, MAT229 | | |
| | ELC451 | Computer Architecture | ENG312 | | |
| | ELC483/MEC483 | Robotics | ENG272 | | |
| | MEC343 | Biomechanics | MEC251 | | |
| | MEC421 | Kinematics and Mechanism | CSC217, ENG262 | | |
| | ELC/MEC470 | Special Topics (By advisement) | | | |
| | ELC/MEC391 | Independent Study | | | |

Legend

Maths and Science Core
 Engineering Science Core
 Management/Business Core
 General Engineering
 Computer Science
 Others



* Engineering Elective- Students planning to enroll in MEC495/496 must follow the sequence MEC311-MEC361 for technical elective.

* Engineering Elective- Students planning to enroll in ELC495/496 must follow the sequence ENG312-ELC251 for technical elective.