



**Masters of Science in Industrial Engineering (MIENG)**

**Major Electives**

| Code  | Title    | Credits | Prerequisites | Corequisites |
|-------|----------|---------|---------------|--------------|
|       | Elective | 3       |               |              |
|       | Elective | 3       |               |              |
|       | Elective | 3       |               |              |
|       | Elective | 3       |               |              |
|       | Elective | 3       |               |              |
| Total |          | 15      |               |              |

**Major Requirements**

| Code     | Title   | Credits | Prerequisites   | Corequisites |
|----------|---|---------|---|--------------|
| EENG500  | Industrial Systems Automation and Control     | 3       |   | EENG500L     |
| EENG500L | Industrial Systems Automation and Control Lab | 1       |   | EENG500      |
| IENG510  | Manufacturing Systems                         | 3       |   |              |
| IENG515  | Organizational Environments                   | 3       |   |              |
| IENG550L | Industrial Engineering Field Visit            | 1       |   |              |
| IENG555  | Advanced Concepts in Quality Improvement      | 3       |   |              |
| IENG560  | Infrastructure and Facilities Management      | 3       | IENG510   |              |
| IENG565  | Industrial Waste Management                   | 3       |   |              |
| IENG570  | Occupational Safety Engineering               | 3       |   |              |
| IENG600L | Industrial Engineering Graduate Seminar I     | 1       |   |              |
| IENG615  | Operations Research                           | 3       |   |              |
| IENG660L | Industrial Engineering Graduate Seminar II    | 1       | IENG600L  |              |
| IENG695A | Master Thesis Project (Part I)                | 3       | IENG570 - IENG565 -<br>IENG560 - IENG555 -<br>IENG550L - IENG515 -<br>IENG510 |              |
| IENG695B | Master Thesis Project (Part II)               | 3       | IENG695A  |              |
| Total    |   | 34      |   |              |

**General Education Requirements**

| Code    | Title                           | Credits | Prerequisites | Corequisites |
|---------|---------------------------------|---------|---------------|--------------|
| ENGG650 | Engineering Profession & Ethics | 3       |               |              |
| Total   |                                 | 3       |               |              |

**Major Elective Courses**

| Code    | Title   | Credits | Prerequisites | Corequisites |
|---------|---|---------|---------------|--------------|
| ENGG500 | Engineering Economics                                   | 3       |               |              |
| ENGG510 | Methods of Optimization                                 | 3       |               | IENG615      |
| IENG610 | Selected Topics in Industrial Engineering               | 3       |               |              |
| IENG625 | Data Analysis and Decision Models                       | 3       | ENGG500       |              |
| IENG630 | Financial Engineering                                   | 3       |               |              |
| IENG635 | Food Engineering  | 3       |               |              |
| IENG640 | Fundamentals of Petroleum and Petrochemical Engineering | 3       |               |              |
| IENG655 | Simulation of Production and Service Systems            | 3       |               |              |

|         |  |   |         |  |
|---------|--|---|---------|--|
| IENG665 | Oil and Gas Production Logistics       | 3 | IENG640 |  |
| IENG670 | Advanced Engineering Economic Analysis | 3 |         |  |
| IENG675 | Computational Optimization             | 3 |         |  |
| IENG680 | Food Manufacturing Processes           | 3 | IENG635 |  |