**EOC CAMPUS - INDUSTRIAL ENGINEERING CURRICULUM FLOW SHEET**

### Community College Courses – Cannot Exceed 64 Hours

1. **1st Semester**
   - **MAT 1613** (CAL I)
   - **FINE ART ELECTIVE**

2. **2nd Semester**
   - **MAT 1623** (CAL II)
   - **PHY 2544** (PHYSICS I)

3. **3rd Semester**
   - **CHE 1214** (CHEM I & LAB)
   - **CHE 1224** (CHEM II & LAB)
   - **ENG 1113** (ENG COMP I)

4. **4th Semester**
   - **MAT 2113** (LIN ALG)
   - **PSY 1513** (PSYCHOLOGY)

5. **5th Semester**
   - **IE 3123** (IND ERGO)
   - **IE 3323** (ACCOUNTING II)

6. **6th Semester**
   - **MAT 2613** (CAL III)
   - **ENG 1123** (ENG COMP II)

7. **7th Semester**
   - **ACC 2223** (ACCOUNTING II)
   - **ECO 2213** (MICROECO)

### MSU Courses

1. **1st Semester**
   - **IE 1313** (LEAN)
   - **IE 1333** (PC I)

2. **2nd Semester**
   - **IE 4623** (SYS SIM I)
   - **IE 4653** (LOGISTICS)

3. **3rd Semester**
   - **IE 4613** (STAT I)
   - **IE 4733** (LP I)

4. **4th Semester**
   - **IE 4753** (SYS ENGR)
   - **IE 4773** (ENG ECON)

5. **5th Semester**
   - **IE 3333** (PC I)
   - **IE 3913** (ENG ECON)

6. **6th Semester**
   - **IE 4533** (QUALITY)
   - **IE 4933** (INFO SYS)

7. **7th Semester**
   - **IE 4613** (SYS SIM I)
   - **IE 4653** (LOGISTICS)

8. **8th Semester**
   - **IE XXX3** (IE ELECTIVE)
   - **IE XXX3** (IE ELECTIVE)

### Course Prerequisite Notes

1. MAT 1613: ACT Math subscore of 26, or grades of C or better in 1323 Trig or 1343 Precalculus.
2. CHE 1214: ACT Math subscore of 24 or grades of C or better in MAT 1313 Algebra.
3. ENG 1113: A score of 17 or above in the English section of the ACT or EN 0103.
4. MAT 1323 Trigonometry: ACT Math subscore of 24 or grades of C or better in MAT 1313 Algebra.
5. MAT 1343 Precalculus: Math ACT of 24 or C or better in 1214 or a score of at least 70 on the Precalculus Qualifying Exam.
6. Macro Econ is not required for ISE students. Sophomore standing is required.
7. Prerequisite (ACC 2213) override needed to enter ACCT II without first taking ACCT I. Contact Community College Business Department Chair to request override.

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To take a required IE course, students must have a grade of C or better in each prerequisite IE course.

P.O. Box 100  |  MGCCC University Building – Office 105  |  2300 Hwy 90  |  Gautier, MS 39553  |  P. 228.201.1471  |  ise.msstate.edu
REQUIRED HOURS:

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Title</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>Mathematics (15 HRS)</td>
<td>MAT 1613 Calculus I</td>
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<td>MAT 1623 Calculus II</td>
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<td>MAT 2613 Calculus III</td>
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<td>MAT 2623 Calculus IV</td>
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<td></td>
<td>MAT 2113 Linear Algebra</td>
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<tr>
<td>Chemistry (8 HOURS)</td>
<td>CHE 1214 Chemistry I and Lab</td>
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<td>CHE 1224 Chemistry II and Lab</td>
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<td>Physics (8 HOURS)</td>
<td>PHY 2514 Physics I-A</td>
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<td>PHY 2524 Physics II-A</td>
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Math/Science Elective (3 HOURS)

- 3 MATH/SCIENCE ELECTIVE*

Fine Arts (3 HOURS)

- 3 FINE ARTS ELECTIVE*

Humanities (6 HOURS)

- 3 HUMANITIES ELECTIVE*
- 3 HUMANITIES ELECTIVE*

Communication (12 HOURS)

- ENG 1113 English Composition I
- ENG 1123 English Composition II
- GRA 1143 Graphic Communication
- GE 3513 Technical Writing

Other (3 HOURS)

- ACC 2033 Managerial Accounting

Industrial Engineering (58 HRS)

- IE 1313 Lean
- IE 3123 Industrial Ergonomics
- IE 3323 Manufacturing Processes
- IE 3913 Engineering Economy I
- IE 4353 Production Control Systems I
- IE 4543 Logistics Engineering
- IE 4613 Engineering Statistics I
- IE 4623 Engineering Statistics II
- IE 4653 Quality Engineering
- IE 4733 Linear Programming I
- IE 4753 Systems Engineering & Analysis
- IE 4773 Systems Simulation I
- IE 4914 Design of Industrial Systems
- IE 4933 Information Systems for IE
- IE 3 IE ELECTIVE*
- IE 3 IE ELECTIVE*
- IE 3 ENGINEERING MANAGEMENT ELECTIVE*
- IE 3 PROFESSIONAL ENHANCEMENT ELECTIVE*
- IE 3 APPROVED ELECTIVE*

Other Engineering (12 HOURS)

- EGR 2433 Engineering Mechanics I
- 3 ENGINEERING SCIENCE ELECTIVE*
- 3 COMPUTER PROGRAMMING ELECTIVE*

Social Sciences (6 HOURS)

- ECO 2123 Principles of Microeconomics
- PSY 1013 General Psychology

*Listed in Columns 3 and 4

Elective Choices: Unless stated otherwise, course numbers correspond to MSU catalog

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Title</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>Mathematics/Science Elective</td>
<td>PH 2233 Physics III</td>
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<tr>
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<td>MAT 2913 Differential Equations (Comm. College)</td>
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<td>MA 3253 Differential Equations I</td>
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<td>MA 3053 Foundation of Math I</td>
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<td>MA 4143 Graph Theory</td>
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<td>MA 4313 Numerical Analysis I</td>
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<td>MA 4533 Probabilistic Random Process</td>
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<td>ST 4213 Nonparametric Methods</td>
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<td>CH 2313 Analytical Chemistry</td>
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<td>BIO 1134 Biology I</td>
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<td>GE 4153 Engineering Geology</td>
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<td>GG 4233 Applied Geophysics</td>
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Humanities Electives

- AAS 1063 Introduction to African American Studies
- ARC 2313 History of Architecture I
- ARC 3313 History of Architecture II
- ARC 3323 History of Architecture III
- EN 2203 Introduction to Literature
- EN 2213 English Literature
- EN 2223 English Literature
- EN 2243 American Literature
- EN 2253 American Literature
- EN 2273 World Literature
- EN 2283 World Literature
- FL***1113 Language I
- FL***1123 Language II
- FL***2133 Language III
- FL***2143 Language IV
- HI 1063 Early U.S. History
- HI 1073 Modern U.S. History
- HI 1163 World History before 1500
- HI 1173 World History since 1500
- HI 1213 Early Western World
- HI 1223 Modern Western World
- HI 1313 East Asian Civilizations to 1300
- HI 1323 East Asian Civilizations since 1300
- HI 4683 Europe: The First World War to Hitler
- HON 1163 The Quest Begins
- HON 3183 Honors Seminar in the Humanities
- PHI 1103 Introduction to Philosophy
- PHI 1113 Introduction to Logic
- PHI 1123 Introduction to Ethics
- PHI 3023 History of Western Philosophy: Part I
- PHI 3033 History of Western Philosophy: Part II
- PHI 3153 Aesthetics
- REL 1103 Introduction to Religion
- REL 3213 World Religions: Part I
- REL 3223 World Religions: Part II

Math/Science Elective

- French (FLF), German (FLG), Greek (FLH), Japanese (FLJ), Latin (FLL), Russian (FLR), and Spanish (FLS)

Professional Enrichment Elective

Any class that aids in the enrichment of their undergraduate program. A class that counts toward a minor or certificate, an F.E. prep class, etc.

IE Electives

Any three-hour non-required industrial engineering course.

Fine Arts Elective

- ARC 1013 Architectural Appreciation
- ART 1013 Art History I
- ART 1023 Art History II
- ART 1113 Art Appreciation
- BCS 1013 Architectural Appreciation
- CO 1503 Introduction to Theatre
- HON 3173 Honors Seminar in Fine Arts
- ID 3643 History of Interiors
- LA 1803 Landscape Appreciation
- MU 1113 History and Appreciation of Music
- MU 1133 The History of Rock and Roll
- MU 2213 History and Literature of Music I
- MU 2323 History and Literature of Music II
- PE 1323 History and Appreciation of Dance
- PSS 2343 Floral Design
- TKI 2413 History and Appreciation of the Artcrafts

Computer Programming Elective

- CSC 2133 Advanced Computer Programming C (Comm. College)
- CSC 2134 Programming I with C++ (Comm. College)
- CSC 2134A Programming I with C++ (Comm. College)
- CSE 1233 Computer Programming with C
- CSE 1284 Intro to Computer Programming

Engineering Science Electives

All Engineering Science Electives can be found here: [https://www.isc.msstate.edu/academics/undergraduate/electives/](https://www.isc.msstate.edu/academics/undergraduate/electives/)

Engineering Science Electives offered at EOC Campus:

- ECE 3413 Intro to Electronic Circuits
- EGR 2433 Engineering Mechanics II (Comm. College)
- EM 2433 Engineering Mechanics II
- EM 3213 Mechanics of Materials
- EM 3313 Fluid Mechanics
- ME 3513 Thermodynamics I
- ME 3403 Materials for ME Design
- ME 3113 Engineering Analysis

Engineering Management Elective

- IE 4513 Engineering Administration
- IE 4533 Project Management

Approved Elective

Almost any non-remedial, non-LSK, non-physical education (excluding varsity sports) course. To be discussed with advisor.