<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ENGR 20X</td>
<td>These courses are required but can be taken in any order: ENGR 202* - Statics and Dynamics</td>
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<tr>
<td>ENGR 204</td>
<td>Intro to Circuit Analysis and Electronics with Lab</td>
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<tr>
<td>ENGR 209</td>
<td>Intro to Conservation Laws &amp; Fluid Mechanics</td>
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* Course offered as part of the Summer Program in Germany.

**Mechanical Engineering Concentration Model Program (Fall 2022 Start)**

<table>
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<tr>
<th>Semester</th>
<th>Courses</th>
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</table>
| **Fall (15)** | 5. Chemistry 101 General Chemistry (F,S)  
1. Engineering 101 Intro to Engineering Design (F)  
4. Mathematics 171 Calculus I (F,S)  
2. Core Foundations CORE 100: Community and Commitments |
| **Spring (17)** | 3. Engineering 205 Material Science (S)  
4. Mathematics 172 Calculus II (F,S)  
4. Physics 133 Introductory Physics, Mechanics and Gravity (S)  
3. Core Foundations Foundations of Christianity I  
3. Core Comp and Skills Foundational Writing |
| **Fall (16)** | 4. Engineering 20X  
4. Mathematics 271 Multivariable Calculus (F,S)  
4. Physics 235 Introductory Physics: Electricity and Magnetism (F)  
2. Computer Science 104 Applied Computing (F) (CS 106 or 108 may be substituted but both are 4 SH)  
2. Core Foundations Foundations of Christianity II  
0. Engineering 295 Internship Workshop  
1. Engineering 184 Sustainability Challenges (F) (ES Tag, required for students seeking Sustainability Designation) |
| **Spring (18)** | 4. Engineering 20X  
4. Mathematics 231 Differential Equations with Linear Algebra (F,S)  
2. ECON 191 Economics (2 SH minimum)  
2. Core Knowledge and Understanding (see Core Options sheet)  
2. Statistics 241 Engineering Statistics (S)  
0. Engineering 294 Engineering Seminar (does not require registration in advance) |
| **Fall (17)** | 4. Engineering 305 Mechanics of Materials (F)  
4. Engineering 319 Intro. To Thermal/Fluid Sciences (F)  
4. Electrical: Basic Science or Advanced Math (2 SH minimum)  
2. Core Knowledge and Understanding (see Core Options sheet)  
2. Interdisciplinary 102 Oral Rhetoric for Engineers  
1. Core Comp and Skills Health and Movement |
| **Spring (16)** | 4. Engineering 322 Machine Design with Finite Element Analysis (S)  
4. Engineering 328 Intermediate Thermal/Fluid Sciences & Design (S)  
4. Engineering 334 Dynamics of Machinery and Instrumentation (S)  
4. Core Knowledge and Understanding (see Core Options sheet)  
1. Engineering 384 Sustainability Analysis (S) (Required for students seeking Sustainability Designation) |
| **Fall (17)** | 4. Engineering 333 Thermal Systems Designs (F)  
2. Engineering 339 Senior Design Project (F)  
4. Engineering Elective ENGR 314, 315, or 342  
4. Elective: Basic Science, Advanced Math, Engineering, or Technical  
2. Business 357 Business Aspects for Engineers (F)  
1. Core Comp and Skills Health and Movement |
| **Spring (14)** | 4. Engineering 324 Materials & Processes in Manufacturing (S)  
4. Engineering 340 Senior Design Project (S)  
2. Engineering Elective Typically ENGR 350 (2 SH minimum)  
0. Engineering 394 Engineering Seminar (does not require registration in advance)  
4. Core Knowledge and Understanding (see Core Options sheet) |
| **Fourth Year** | |
| **Internship Experience (ENGR 385 Optional)** | |
| **Other Requirements** | 0-8 Core Comp and Skills: World Languages I (3 years in HS with B or better)  
0-3 Engaged Citizenship Commitment Tag: Diversity and Difference  
0-3 Engaged Citizenship Commitment Tag: Environmental Sustainability  
0-3 Engaged Citizenship Commitment Tag: Global Regions and Cultures |

Revised May 2022