**B.S. in Engineering**

**Concentration: Manufacturing**

Will Seek Accreditation by the Accreditation Board for Engineering and Technology

(EAC of ABET) following graduation in May 2017

**Major Program Guide For: B.S. in Engineering (Concentration: Manufacturing, Biltmore Park)**

**Suggested Course Sequence (2015-16 Catalog)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Freshman Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
| **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** | **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** |
| **ENGL** | 101 | Composition (C1) | 3 | **ENGR** | 132 | Engineering Graphics | 3 |
| **CHEM** | 139 | General Chemistry I (C5) | 4 | **Perspective** |  |  | 3 |
| **MATH** | 153 | Calculus I (C2) | 4 | **MATH** | 255 | Calculus II | 4 |
| **Wellness (C4)** |  |  | 3 | **PHYS** | 230 | General Physics I (C5) | 4 |
| **ENGR** | 199 | Engg. Principles I | 3 | **COMM** | 201 | Communications (C3) | 3 |
|  |  | *Semester Total:* | *17* |  |  | *Semester Total:* | *17* |
|  | | | | | | | |
| **Sophomore Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
| **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** | **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** |
| **ENGR** | 200 | Eng/Prac/Prin. II | 3 | **EE** | 200 | Computer Utilization | 3 |
| **ENGR** | 201 | Engineering Mechanics: Statics | 3 | **Perspective** |  |  | 3 |
| **ENGR** | 231 | 3D Solid Modeling | 3 | **ENGR** | 211 | Material Science | 3 |
| **MATH** | 320 | Ord. Diff. Equations | 3 | **ENGL** | 202 | Composition II (C1) | 3 |
| **PHYS** | 231 | General Physics II | 4 | **MATH** | 256 | Calculus III | 4 |
|  |  |  |  | **ME** | 211 | ME Lab I | 1 |
|  |  | *Semester Total:* | *16* |  |  | *Semester Total:* | *17* |
|  | | | | | | | |
| **Junior Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
| **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** | **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** |
| **ENGR** | 315 | Electrical Engr. Fundamentals | 3 | **ENGR** | 350 | Eng/Prac/Prin. III | 3 |
| **Perspective** |  |  | 3 | **MFE** | 365 | Design of Manufacturing Systems | 3 |
| **ME** | 301 | Engineering Mechanics: Dynamics | 3 | **MFE** | 375 | Automated Manufacturing Systems | 3 |
| **MFE** | 311 | Manufacturing Engr Lab I | 1 | **MFE** | 327 | Quality Engineering | 3 |
| **MFE** | 324 | Computer Aided Des. & Manuf. | 3 | **MFE** | 312 | Manufacturing Engr Lab II | 1 |
| **MATH** | 370 | Probability and Statistics | 3 | **Perspective** |  |  | 3 |
|  |  | *Semester Total:* | *16* |  |  | *Semester Total:* | *16* |
|  | | | | | | | |
| **Senior Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
| **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** | **Course Prefix or Liberal**  **Studies Requirement** | **Course**  **Number** | **Course Title** | **Cr**  **Hrs** |
| **ENGR** | 400 | Engineering Capstone I | 3 | **ENGR** | 450 | Engineering Capstone II | 3 |
| **MFE** | 424 | Advanced Manuf. Processes I | 3 | **ENGR** | 402 | System Dynamics and Control | 3 |
| **ENGR** | 411 | Engineering Numerical Analysis | 3 | **MFE** | 427 | Advanced Manuf. Processes II | 3 |
| **Tech. Elective** |  | ENGR 331 or others | 3 | **Upper Level Perspective** |  |  | 3 |
| **Perspective** |  |  | 3 |  |  |  |  |
|  |  | *Semester Total:* | *15* |  |  | *Semester Total:* | *12* |
|  | | | | | | | |

**NOTES:**

* *Total for Degree: 126 Credit Hours*
* Students may finish earlier if they attend summer school at WCU or another approved institution
* Upper Level Perspective (ULP): An approved Upper Level Liberal Studies Perspectives course is required in one of the Liberal Studies Perspectives categories.

*Information in the Course Catalog (catalog.wcu.edu) for the year in which you were admitted prevails, if there is a conflict with the Suggested Course Sequence.*