Frederick Community College & West Virginia University

Engineering Area of Concentration within STEM A.S. (Transfer) leading to

Bachelor of Science in Mechanical Engineering B.S.M.E.



Robotics Area of Emphasis Suggested Plan of Study



| Frederick Community College | Hours | WVU Equivalents | Hours |
|---|-------------|---------------------------------|----------|
| | Year One, | 1 st Semester | |
| ENGL 101 | 3 | ENGL 101 | 3 |
| MATH 185 | 4 | MATH 155 | 4 |
| ENGR 100 | 3 | ENGR 1TC (sub for ENGR 101) | 3 |
| ANTH 101 or PSYC 101 or SOCY 101 (or another Social & Behavioral Sciences Elective Gen Ed) | 3 | ANTH 105 or PSYC 101 or SOC 101 | 3 |
| Arts Elective (Gen Ed) | 3 | Elective | 3 |
| ΤΟΤΑΙ | 16 | | 16 |
| | Year One, 2 | 2 nd Semester | |
| CHEM 101 | 4 | CHEM 115 & CHEM 115L | 4 |
| ECON 202 (Social & Behavioral Sciences Elective Gen Ed) | 3 | ECON 201 (Required) | 3 |
| MATH 195 | 4 | MATH 156 | 4 |
| MATH 220 | 1 | MATH 2TC | 1 |
| Communication Elective (Gen Ed) | 3 | Elective | 3 |
| ΤΟΤΑΙ | 15 | | 15 |
| | Year Two, | 1 st Semester | |
| ENGR 110 (STEM Elective) | 3 | MAE 241 (Required) | 3 |
| PHYS 151 | 4 | PHYS 111 & PHYS 111L | 4 |
| CHEM 102 | 4 | CHEM 116 & CHEM 116L | 4 |
| MATH 285 (STEM Elective) | 4 | MATH 251 (Required) | 4 |
| ΤΟΤΑΙ | 15 | | 15 |
| | Year Two, 2 | 2 nd Semester | |
| ENGL 102 (Humanities Elective Gen Ed) | 3 | ENGL 102 (Required) | 3 |
| MATH 275 | 3 | MATH 261 | 3 |
| Physical Education, Health, or Nutrition Requirement | 1 or 3 | Elective | 1 or 3 |
| PHYS 252 (Gen Ed Elective) | 4 | PHYS 112 & PHYS 112L (Required) | 4 |
| ENGR 212 (Free Elective) | 3 | MAE 242 (Required) | 3 |
| ΤΟΤΑΙ | 14 or 16 | | 14 or 1 |
| | | 1 | 2023-202 |

Mechanical Engineering, B.S.M.E. AoE: Robotics

| Wes | t Virgini | ia University | |
|--------------------------------------|-----------|--------------------------------------|----|
| Summer Session | | ENGR 102 or elective | 3 |
| Year Three, 1 st Semester | | Year Three, 2 nd Semester | |
| EE 221 & EE 221L | 4 | MAE 253 | 2 |
| MAE 202 (FA only) | 1 | MAE 316 | 3 |
| MAE 211 & MAE 211L | 3 | MAE 331 | 3 |
| MAE 212L | 1 | MAE 342 | 3 |
| MAE 216L | 1 | MAE 353 | 3 |
| MAE 243 | 3 | MAE 411 & MAE 411L (AoE) | 3 |
| MAE 244L ^(AoE) | 1 | | |
| MAE 320 | 3 | | |
| TOTAL | 17 | TOTAL | 17 |
| Year Four, 1 st Semester | | Year Four, 2 nd Semester | |
| IENG 302 | 2 | MAE 423 | 3 |
| MAE 456 & MAE 456L | 3 | MAE 472S | 3 |
| MAE 471S | 3 | MAE 413 (SP only / AoE) | 3 |
| MAE 412 (FA Only / AoE) | 3 | MAE 460 (AoE) | 3 |
| MAE 442 (AoE) | 3 | Technical Elective (2) | 3 |
| Technical Elective (1) | 3 | Technical Elective (3) | 3 |
| TOTAL | 17 | TOTAL | 18 |

Students entering WVU at the sophomore level or above, have earned a C- or better in CHEM 115, MATH 155, MATH 156, and PHYS 111, and have completed at least three credit hours in a discipline specific course, may request to take an approved elective (or approved transfer credit) as a substitute for either ENGR 101 or 102 or the combination. For this agreement, ENGR 100 (ENGR 1TC) will be utilized as a substitution for WVU's required ENGR 101.

Students must have a cumulative GPA of 2.25 in all college coursework attempted, and a C or better in MATH 155 (MATH 185), CHEM 115/L (CHEM 101), ENGL 101 (ENGL 101), ENGR 101, and ENGR 102 (or approved substitutions) to be admitted directly to the Mechanical Engineering in the Statler College of Engineering and Mineral Resources upon transferring to West Virginia University.

Students transferring to West Virginia University with an Associate of Arts or Associate of Science degree will have satisfied the General Education Foundation requirements at WVU.

Students who have questions about admission into their intended program, GEF requirements, or any other issue relating to academics at West Virginia University should contact the Office of Undergraduate Education at WVU.

The above transfer articulation of credit between West Virginia University and Frederick Community College, is approved by the Dean, or the Dean's designee, and effective the date of the signature.

Robin Hissam

Rohn Hissam

01/04/2023

Print Name Signature Date Robin Hissam, Ph.D., Associate Dean of Academic and Student Performance for Benjamin M. Statler College of Engineering and Mineral Resources at West Virginia University