Table A: Applied Mechanical Technology (AMECHT-AAS) AY 2022-2023
*Calendar Type:* Semester

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Term: Fall 1** |  |  |  |  |  |  |
| **Course Number & Title** | **CR** | **GE** | **MAJ** | **OPEN** | **NEW** | **Prerequisite(s)** |
| NCAR-010 Freshman Seminar | 0 |  | 0 |  |  |  |
| NETS-101 Fundamentals of Engineering | 3 |  | 3 |  |  |  |
| NETS-110 Foundations of Materials | 2 |  | 2 |  |  | Co-req NETS-111 |
| NETS-111 Foundations of Materials Lab | 1 |  | 1 |  |  | Co-req NETS-110 |
| General Education - Elective: MATH-171 Calculus A  | 3 | 3 |  |  |  |  Completion of math placement exam or C- or better in MATH-111 or C- or better in ((NMTH-260 or NMTH-272 or NMTH-275) and NMTH-220) or equivalent course. |
| Program Elective(2) | 3 |  | 3 |  | x |  |
| General Education - Elective: CHMG-131 General Chemistry for Engineers | 3 | 3 |  |  |  |  |
| **Term Credit Total:** | 15 | 6 | 9 | 0 |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Term: Spring 1** |  |  |  |  |  |  |
| **Course Number & Title** | **CR** | **GE** | **MAJ** | **OPEN** | **NEW** | **Prerequisite(s)** |
| NETS-120 Manufacturing Processes | 3 |  | 3 |  |  |  |
| NETS-150 Mechanical Design & Fabrication | 3 |  | 3 |  |  | Co-req NETS-151 |
| NETS-151 Mechanical Design & Fabrication Lab | 1 |  | 1 |  |  | Co-req NETS-150 |
| General Education - Elective: MATH-172 Calculus B | 3 | 3 |  |  |  | C- or better in MATH-171 or equivalent course.  |
| General Education - Scientific Principles Perspective: PHYS-111 College Physics I | 4 | 4 |  |  |  |    |
| General Education - First Year Writing: UWRT-150 FYW: Writing Seminar (WI) | 3 | 3 |  |  |  |  |
| **Term Credit Total:** | 17 | 10 | 7 | 0 |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Term: Summer 1** |  |  |  |  |  |  |
| **Course Number & Title** | **CR** | **GE** | **MAJ** | **OPEN** | **NEW** | **Prerequisite(s)** |
| None |  |  |  |  |  |  |
| **Term Credit Total:** | 0 | 0 | 0 | 0 |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Term: Fall 2** |  |  |  |  |  |  |
| **Course Number & Title** | **CR** | **GE** | **MAJ** | **OPEN** | **NEW** | **Prerequisite(s)** |
| MCET-220 Principles of Statics | 3 |  | 3 |  |  |  |
| MCET-210 Foundations of Non-Metallic Materials | 2 |  | 2 |  |  | C- or better in (CHMG-131 or CHMG-141 or CHEM-151) and (MCET-110 and MCET-111) or (NETS-110 and NETS-111) or (MECE-304 or MECE-305 and MECE-306) or equivalent courses. co-req. MCET-211 or equivalent course.  |
| MCET-211 Characterization of Non-Metallic Materials Lab | 1 |  | 1 |  |  | co-req. MCET-210 or equivalent course.  |
| General Education - Elective: PHYS-112 College Physics II | 4 | 4 |  |  |  | PHYS-111 or equivalent course.  |
| General Education - Artistic Perspective | 3 | 3 |  |  |  |  |
| General Education - Ethical Perspective | 3 | 3 |  |  |  |  |
| **Term Credit Total:** | 16 | 10 | 6 | 0 |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Term: Spring 2** |  |  |  |  |  |  |
| **Course Number & Title** | **CR** | **GE** | **MAJ** | **OPEN** | **NEW** | **Prerequisite(s)** |
| MCET-221 Strength of MaterialsorMECA-290 Mechanics for Mechatronics | 3 |  | 3 |  | x | MCET-221: Grade of C- or better in MCET-220 or MECE-103 or CVET-210 or equivalent course. co-req. MCET-110 or NETS-110 or equivalent course.MECA-290: C- or better in MCET-220 or MECE-103 or CVET-210 or equivalent course |
| EEET-115 Circuits I  | 3 |  | 3 |  | x | ; co-req. EEET-116 and MATH-111 or MATH-171 or MATH-181 or MATH-181A or equivalent course. |
| EEET-116 Circuits I Lab  | 1 |  | 1 |  | x | Co-req. EEET-115 or equivalent course. |
| MATH-211 Elements of Multivariable Calculus and Differential Equations | 3 |  | 3 |  |  | C- or better in MATH-172 or MATH-182 or MATH 182A or equivalent course. |
| General Education - Global Perspective | 3 | 3 |  |  |  |  |
| General Education - Social Perspective | 3 | 3 |  |  |  |  |
| **Term Credit Total:** | 16 | 6 | 10 | 0 |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total Credits (CR)** | **General Education (GE)** | **Major(MAJ)** | **Electives & Other****(OPEN)** |
| **Program Totals** | **64** | **32** | **32** | **0** |

***Notes:***

1. All students pursuing an Associate’s degree are also required to complete one Wellness course.
2. The Program Elective in the first semester is typically based on science, mathematics, or English placement. Students may select Critical Reading & Writing (UWRT-100), Precalculus (MATH-111), Accelerated Algebra II (NMTH-272), Advanced Mathematics (NMTH-275), Concepts of College Physics (NSCI-270), or another course as determined by the department chairperson. Students who need to take precalculus can take (NMTH-272 Accelerated Algebra II or NMTH-275 Advanced Mathematics) and NMTH-220 Trigonometry to satisfy the MATH-171 Calculus A pre-requisite.

**Change Log**

|  |  |
| --- | --- |
| **Effective Term** | **Curriculum Modification(s)** |
| 2221 | 11/18/21ms/mal(Clerical-update COS mat pre-reqs); 4/1/22fxk(clerical); 4/12/22kb(RIT-CET) |
| 2211 | New addition to the table |
| Older | 4-4-13ssl; 7-15-13mg; 2-24-15mg; 5-6-15mg; 6-30-15ph; 4-17-17mg; 5-30-17fxk; 9-17-18fxk(Wellness added); 9-12-19djl |