|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BS Degree in Mechanical Engineering** | | |  | **Effective** | **Fall 2019** |  |  |
|  |  |  |  |  | |  |  |
| **Semester 1 (Fall)** | | | | | | |  |
| Course | Credits | Title | Min Grade | Pre-Req | | Co-Req | Sem |
| MATH 1170 | 4 | Calculus 1 | C- | MATH 1147 or Equiv | |  |  |
| CHEM 1111 | 4 | General Chemistry I |  | MATH 1147 or Equiv | |  |  |
| CHEM 1111L | 1 | General Chemistry Lab |  | CHEM 1111 | | CHEM 1111 |  |
| ENGL 1101 | 3 | English Composition | C- | Test Score or Equiv. | |  |  |
| Gen Ed | 3 | Objective 4 - Humanities |  |  | |  |  |
|  | **15** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 2 (Spring)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| MATH 1175 | 4 | Calculus II | C- | MATH 1170 | |  |  |
| PHYS 2211 | 4 | Engineering Physics |  | MATH 1175 | | MATH 1175 |  |
| ME 1165 | 2 | Structured Programming | C- | MATH 1170 | |  | F,S |
| ME 1105 | 2 | Intro to Solid Modeling | C- | MATH 1147 or Equiv | |  | F,S |
| ENGL 1102 | 3 | Critical Reading and Writing | C- | ENGL 1101 or Equiv | |  |  |
|  | **15** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 3 (Fall)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| MATH 2275 | 4 | Calculus III |  | MATH 1175 | |  |  |
| PHYS 2212 | 4 | Engineering Physics |  | PHYS 2211 | |  |  |
| CE/ME 2210 | 3 | Engineering Statics |  | PHYS 2211, MATH 1175, ME/CE 1105 | | PHYS 2211, MATH 1175, ME/CE 1105 | F,S |
| EE 2245 | 3 | Principles of Electrica Circuits |  | MATH 1175, PHYS 2212 | | MATH 1175, PHYS 2212 | F,S |
| COMM 101 | 3 | Principles of Speech |  |  | |  |  |
|  | **17** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 4 (Spring)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| MATH 3360 | 3 | Differential Equations |  | MATH 1175 | | MATH 2240 or MATH 2275 Recommended | |
| MATH 2240 | 3 | Linear Algebra |  | MATH 1170 | |  |  |
| ME/CE 3350 | 3 | Mechanics of Materials |  | CE/ME 2210,PHYS 2211,ME/CE 1105,MATH 1175 | |  | F,S |
| ME 2220 | 3 | Engineering Dynamics |  | CE/ME 2210,PHYS 2211,ME/CE 1105,MATH 1175 | |  | F,S |
| Gen Ed | 3 | Objective 4 |  |  | |  |  |
|  | **15** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 5 (Fall)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| ME 3307 | 3 | Thermodynamics |  | ME 2220, MATH 2275 | | MATH 2275 | F,S |
| ME 3320 | 3 | Kinematics |  | ME 1165,ME 2266, ME 2220, MATH 2240,MATH 2275 | | MATH 2275 | F |
| ME 3323 | 3 | Machine Design |  | ME 3322, ME/CE 3350, ME 3320 | | ME 3322, ME3320 | F |
| ME 3322 | 3 | ME Materials |  | CHEM 1111, CHEM 1111L, ME/CE 2210,ME/CE 3350,MATH 1175 | | ME/CE 3350 | F,S |
| Gen Ed | 3 | Objective 7 or 8 |  |  | |  |  |
|  | **15** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 6 (Spring)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| ME 3341 | 3 | Fluid Mechanics |  | ME 2220, MATH 3360 | |  | S |
| ME 3325 | 3 | Machine Design II |  | ME 3320, ME 3323 | |  | S |
| ME 4476 | 3 | Heat Transfer |  | ME 3307, ME 3341 | | ME 3341 | S |
| ME 4406 | 1 | Measurement Systems Lab |  | MATH 3360, EE 2245 | |  | S |
| ME Elective | 1 |  |  |  | |  |  |
| CE 3360 | 2 | Engineering Economics or CE 3361 |  | CE/ME 2210 | |  | F,S |
| Gen Ed | 3 | Objective 6 |  |  | |  |  |
|  | **16** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 7 (Fall)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| ME 4496A | 3 | Project Design I |  | CE 3360 or CE 3361 and approved Application | | CE 3360 or CE 3361 | F |
| ME 4443 | 1 | Thermal Fluids Lab |  | ME 3307, ME 3341, ME 4476 | |  | F |
| ME 4465 | 3 | Thermal Fluid Systems Design |  | ME 3307, ME 3341, ME 4476 | |  | F |
| ME 4440 | 3 | Mechanical Vibrations |  | ME 3325, MATH 3360, MATH 2275 | | ME 3325 | F |
| ME Elect | 3 |  |  |  | |  | F |
| Gen Ed | 3 | Objective 6 |  |  | |  |  |
|  | **16** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Semester 8 (Spring)** | | | | | | |  |
| Course | Credits | Title | Credits | Pre-Req | | Co-Req | Sem |
| ME 4496B | 3 | Project Design II |  | ME 4496A | |  | S |
| ME 4473 | 3 | ME Controls |  | ME 2220, EE 2240, PHYS 2212, MATH 3360, ME 4440 | |  | S |
| ME 4463 | 3 | Mechanical Systems Design |  | ME 3320, ME 3323, ME 3325, ME 4440 | |  | S |
| ME Elect | 3 |  |  |  | |  | S |
| Gen Ed | 3 | Objective 9 - Cultural Diversity |  |  | |  |  |
|  | **15** |  |  |  | |  |  |
|  |  |  |  |  | |  |  |
| **Total Credits** | **124** | 124 Credits needed for Graduation |  |  | |  |  |
| **Revised 10-1-18** |  |  |  |  | |  |  |