

| PROGRAM ARTICULATION DEGREE PLAN                 |   |            |  |   |            |
|--|---|------------|--|---|------------|
| <b>Shawnee Community College</b> 2021-2022       |   |            | <b>Southern Illinois University Carbondale</b>   |   |            |
| Associate of Science (A.S.) - 67 hours           |   |            | BS Mechanical Engineering (ME) - 126 hrs   |   |            |
|  |   |            | <b>University Core Curriculum (UCC)*</b>   |   |            |
|  |   | <b>Hrs</b> |  | <b>Hrs</b>                                      |            |
|  |   |            | UNIV 101   | Saluki Success                                  | NA         |
| ENG 111  | English Composition I                   | 3          | ENGL 101   | English Composition I                           | T          |
| ENG 112  | English Composition II                  | 3          | ENGL 102   | English Composition II                          | T          |
| SPC 111  | Speech                                  | 3          | CMST 101   | Intro to Oral Communication                     | T          |
| MAT 209  | Calculus I                              | 5          | MATH 150 (Required for BS degree)  | Calculus I                                      | T          |
| ECO 212  | Intro to Microeconomics                 | 3          | ECON 240 (Required for BS degree)  | Intro to Microeconomics                         | T          |
| SOCIAL SCIENCE                                   | (See SIUC Equivalency Guide)            | 3          | SOCIAL SCIENCE   | (See SIUC Equivalency Guide)                    | T          |
| HUMANITIES                                       | (See SIUC Equivalency Guide)            | 3          | HUMANITIES   | (See SIUC Equivalency Guide)                    | T          |
|  |   |            | HUMANITIES   |   | NA         |
| CHE 114  | Inorganic Chemistry I w/lab             | 5          | CHEM 200/201 (Required for BS degree)  | Intro to Chemical Principles/Lab                | T          |
|  |   |            | LIFE SCIENCE, GRP II   | (Students take 2 Physics courses)               | NA         |
| FINE ARTS  | (See SIUC Equivalency Guide)            | 3          | FINE ARTS  | (See SIUC Equivalency Guide)                    | T          |
| BIOL 115   | Human Biology                           | 4          | BIOL 202 (Required for BS degree)  | Human Genetics and Human Health                 | T          |
|  |   |            | MULTICULTURAL  |   | NA         |
|  |   | <b>35</b>  |  |   | <b>0</b>   |
|  |   |            | <b>*Any AS degree from an accredited Illinois institution satisfies UCC requirements</b> |   |            |
|  |   |            |  |   |            |
| <b>Program Requirements</b>                      |   |            | <b>Program Requirements</b>  |   |            |
| MAT 211  | Calculus II                             | 5          | MATH 250   | Calculus II                                     | T          |
| MAT 212  | Calculus III                            | 5          | MATH 251   | Calculus III                                    | T          |
| MAT 213  | Ordinary Differential Equations I       | 3          | MATH 305   | Intro to Differential Equations                 | T          |
| PHY 216  | University Physics I                    | 4          | PHYS 205/255A  | University Physics/Lab                          | T          |
| PHY 217  | University Physics II                   | 4          | PHYS 205/255B  | University Physics/Lab                          | T          |
| EGR 212  | Engineering Statics                     | 3          | ENGR 250   | Statics   | T          |
| EGR 214  | Engineering Dynamics                    | 3          | ENGR 261   | Dynamics  | T          |
| CHE 115  | Inorganic, Organic & Biochemistry w/lab | 5          | CHEM 210/211   | General and Inorganic Chemistry/Lab             | T          |
|  |   | <b>32</b>  |  |   |            |
|  |   |            | ME 102   | Computer-Aided Engineering Drawing              | 2          |
|  |   |            | ENGR 296 -or- ME 222   | Software Tools for Engineers -or- MATLAB for ME | 2          |
|  |   |            | ENGR 335   | Electric Circuits                               | 3          |
|  |   |            | ENGR 350A  | Mechanics of Materials                          | 3          |
|  |   |            | ENGR 351   | Numerical Methods                               | 3          |
|  |   |            | ENGR 370A  | Fluid Mechanics                                 | 3          |
|  |   |            | ME 300   | Engineering Thermodynamics I                    | 3          |
|  |   |            | ME 302   | Engineering Heat Transfer                       | 3          |
|  |   |            | ME 309   | Mechanical Analysis & Design                    | 3          |
|  |   |            | ME 312   | Materials Sci Fundamentals                      | 3          |
|  |   |            | ME 336   | System Dynamics & Control                       | 3          |
|  |   |            | ME 400   | Engr Thermodynamics II                          | 3          |
|  |   |            | ME 401   | Thermal Measurements Lab                        | 1          |
|  |   |            | ME 407   | Measurements & Instrumentation                  | 2          |
|  |   |            | ME 411   | Mnfg Methods: Engr Mats                         | 3          |
|  |   |            | ME 472   | Materials Selection for Design                  | 3          |
|  |   |            | ME 475   | Machine Design I                                | 3          |
|  |   |            | ME 495A  | Mechanical Engr Design                          | 3          |
|  |   |            | ME 495B  | Mechanical Engr Design                          | 3          |
|  |   |            | ME Electives   | Choose from 400 level ME courses                | 9          |
|  |   |            |  |   | <b>61</b>  |
| <b>Total semester hrs completed w/ AS degree</b> |   | <b>67</b>  | <b>Total semester hrs completed with BS degree:</b>                                      |   | <b>61</b>  |
| <i>Degree Plan created by SW 9/30/21</i>         |   |            | <b>Total semester hrs to BS degree:</b>  |   | <b>128</b> |