

| PROGRAM ARTICULATION DEGREE PLAN                  |  |              |   |  |
|---|--|--------------|---|--|
| <b>College of Lake County</b>                     | <b>2024-2025</b>   |              | <b>Southern Illinois University Carbondale</b>  |  |
| AES Engineering & Computer Science - 66-67 hrs    |  |              | BS Industrial Management & Applied Engineering (IMAE) - 120 hrs   |  |
|   |  | <b>Hrs</b>   | <b>University Core Curriculum (UCC) Capstone Option - 30 hrs</b>  | <b>Hrs</b>   |
|   |  |              | UNIV 101  | Saluki Success                                     |
|   |  |              | CMST 101  | Intro to Oral Communication                        |
| ENG 121   | English Composition I  | 3            | ENGL 101  | English Composition I                              |
| ENG 122 -or- 126                                  | English Composition II -or- Adv Composition: Sci & Tech Comm | 3            | ENGL 102  | English Composition II                             |
| MTH 145   | Calculus & Analytic Geometry I                               | 5            | MATH 150  | Calculus I   |
|   | IAI Social & Behavioral Sciences                             | 3            | SOCIAL SCIENCE  | See SIUC Transfer Equivalency Guide                |
|   | IAI Social & Behavioral Sciences                             | 3            | SOCIAL SCIENCE  | See SIUC Transfer Equivalency Guide                |
|   | IAI Humanities/Fine Arts                                     | 3            | HUMANITIES  | See SIUC Transfer Equivalency Guide                |
|   |  |              | HUMANITIES  | NA   |
| PHY 123   | Physics for Science & Engineering I                          | 5            | PHYS 205A -and- 255A  | University Physics w/Lab                           |
|   |  |              | LIFE SCIENCE  | 3  |
|   |  |              | FINE ARTS   | 3  |
|   |  |              | HUMAN HEALTH  | NA   |
|   |  |              | MULTICULTURAL   | 3  |
|   |  | <b>25</b>    |   | <b>12</b>  |
| <b>Program Requirements</b>                       |  |              | <b>Program Requirements</b>   |  |
| CLC 120   | College Success Seminar                                      | 2            | <b>The AES degree in Engineering &amp; Computer Science as articulated fulfills the 15 hrs of technical elective course requirements for the BS degree in Industrial Management &amp; Applied Engineering (IMAE).</b> |  |
| EGR 120 -or- Concentration/Technical Elective     |  | 1            |   |  |
| CHM 121   | General Chemistry I  | 5            | CHEM 200 -and- 201 (elective)   | Intro to Chemical Principles w/Lab                 |
| EGR 121   | Engineering Graphics   | 3            | ME 102 (elective)   | Computer-Aided Engineering Drawing                 |
| EGR 125   | Engineering Statics  | 3            | ENGR 250 (elective)   | Statics  |
| EGR 225   | Engineering Dynamics   | 3            | ENGR 261 (elective)   | Dynamics   |
| EGR 260   | Intro to Circuit Analysis                                    | 4            | ECE 235, 235L -or- ENGR 335 (elective)  | Electric Circuits I w/Lab -or- Electric Circuits I |
| MCS 140 -or- MCS 141                              | Computer Programming I -or- Computer Science I               | 3-4          | CS 202 (elective)   | Intro to Computer Science                          |
| MTH 146   | Calculus & Analytic Geometry II                              | 4            | MATH 250 (elective)   | Calculus II  |
| MTH 227   | Differential Equations                                       | 3            | MATH 305 (elective)   | Intro to Differential Equations                    |
| MTH 246   | Calculus & Analytic Geometry III                             | 5            | MATH 251 (elective)   | Calculus III                                       |
| PHY 124   | Physics for Science & Engineering II                         | 5            | PHYS 205B -and- 255B  | University Physics w/Lab                           |
|   |  | <b>41-42</b> |   |  |
|   |  |              | IMAE 110  | Geometric Dimensioning & Tolerancing               |
|   |  |              | IMAE 208  | Fundamentals of Manufacturing Processes            |
|   |  |              | IMAE 305  | Industrial Safety                                  |
|   |  |              | IMAE 307  | Applied Calc for Tech                              |
|   |  |              | IMAE 340  | Intro to Supervision                               |
|   |  |              | IMAE 375  | Production & Inventory Management                  |
|   |  |              | IMAE 390  | Cost Estimating                                    |
|   |  |              | IMAE 392  | Facilities Planning & Workplace Design             |
|   |  |              | IMAE 442  | Fundamentals of Leadership                         |
|   |  |              | IMAE 445  | Computer Integrated Manufacturing                  |
|   |  |              | IMAE 450  | Project Management                                 |
|   |  |              | IMAE 465  | Lean Manufacturing                                 |
|   |  |              | IMAE 470A   | Six Sigma Green Belt I                             |
|   |  |              | IMAE 470B   | Six Sigma Green Belt II                            |
|   |  |              | IMAE 476  | Supply Chain Management                            |
|   |  |              | IMAE Elective   | 300/400 level                                      |
|   |  |              |   | <b>48</b>  |
| <b>Total semester hrs completed w/AES degree:</b> |  | <b>66-67</b> | <b>Total semester hrs completed w/BS degree:</b>  | <b>60</b>  |
|   |  |              | <b>Total hours to BS degree:</b>  | <b>126-127</b>                                     |
| Degree Plan updated on 5/24/24 by SG              |  |              |   |  |