



TRINE UNIVERSITY

Siena Heights Transfer Guide to BS - Robotics Engineering

79 hours total eligible for transfer. Only 41 hours left to complete 120 hours of program requirements.

| TRINE UNIVERSITY BACHELOR OF SCIENCE IN ROBOTICS ENGINEERING (129 HRS) | | | | |
|---|---|----------------------------------|---------------------------------|----------------------|
| Siena Heights University BS - General Engineering | | | | 79 |
| Trine University BS - Robotics Engineering | | | | 41 |
| | | | | Total Credits |
| | | | | 129 |
| General Education Requirements – 41 hours | | Transfer Institution Information | | |
| Communication – 9 hrs. | | Credits | Siena Heights Univ | Credits |
| ENG 133 | Technical Communication | 3 | | |
| HUM 203 | Humanities Seminar | 3 | | |
| SP 203 | Effective Speaking | 3 | TSD 101 | 3 |
| Humanities and Social Science – 9 hrs. | | | | |
| | Social Science | 3 | SOCIAL SCIENCE | 3 |
| | Social Science or Humanities Elective | 3 | FINE & PERFORMING ARTS | 3 |
| | Humanities Elective | 3 | PHILOSOPHY or RELIGIOUS STUDIES | 3 |
| Mathematics and Science – 23 hrs. | | | | |
| MA 134 | Calculus I | 4 | MAT 181 | 4 |
| MA 164 | Calculus II | 4 | MAT 182 | 4 |
| MA 213 | Calculus III | 3 | MAT 292 | 3 |
| CH 104 | General Chemistry I | 4 | CHE 141 | 4 |
| PH 224 | University Physics I | 4 | PHY 161 | 4 |
| PH 234 | University Physics II | 4 | PHY 162 | 4 |
| Additional Requirements - 16 hrs. | | | | |
| GE 101 | Introduction to Engineering | 1 | | |
| CS 1113 | Intro to Object-Oriented Program | 3 | ENR 140 | 3 |
| EGR 143 | Engineering Graphics | 3 | ENR 104 | 3 |
| MA 233 | Differential Equations | 3 | MAT 282 | 3 |
| MA 313 | Introduction to Linear Algebra | 3 | MAT 345 | 3 |
| MA 393 | Probability & Statistics | 3 | ENR 348 | 3 |
| Engineering Science - 14 hrs. | | | | |
| ES 213 | Statics | 3 | ENR 150 | 3 |
| ES 223 | Dynamics | 3 | ENR 260 | 3 |
| ES 233 | Engineering Materials | 3 | ENR 331 | 3 |
| ES 243 | Solid Mechanics | 3 | ENR 250 | 3 |
| ES 382 | Engineering Economics | 3 | | |
| Electrical/Computer Engineering Core Requirements – 15 hrs. | | | | |
| ECE 261 | Digital Systems Lab | 1 | | |
| ECE 263 | Digital Systems | 3 | | |
| ECE 271 | Microcontrollers Lab | 1 | | |
| ECE 273 | Microcontrollers | 3 | | |
| ECE 211 | Circuits Lab | 1 | | |
| ECE 213 | Circuits Analysis | 3 | ENR 270 | 3 |
| ECE 343 | Analog Signals | 3 | | |
| Mechanical Engineering Core Requirements – 8 hrs. | | | | |
| MAE 202 | Mechanical Engineering Analysis | 2 | ENR 202 (junior standing) | 2 |
| MAE 241 | Manufacturing Processes & Equipment Lab | 1 | | |
| MAE 242 | Manufacturing Processes & Equipment | 2 | | |
| MAE 353 | Machine Component Design | 3 | | |
| Mechatronics/Robotics Core Requirements – 23 hrs. | | | | |
| MRE 262 | Robotics Lab & Intro Programmable Logic Controllers | 2 | | |
| MRE 313 | Fluid Power Systems & Design | 3 | | |
| MRE 323 | Robotics Kinematics & Kinetics | 3 | | |
| MRE 403 | Machine Communications | 3 | | |
| MRE 463 | Advanced Mechatronics | 3 | | |
| MRE 4023 | System Dynamics & Controls | 3 | | |
| MRE 4053 | Mechatronics & Robotics Engineering Design I | 3 | | |
| MRE 4063 | Mechatronics & Robotics Engineering Design II | 3 | | |
| Engineering Electives – 6 hrs. | | | | |
| <i>May include CO or any approved 300+ level ASEC course.</i> | | | | |
| | Engineering Elective | 3 | ENR 391 | 3 |
| CO 453 | | 3 | | |
| CO 452 | | 2 | | |
| CO 451 | | 1 | | |
| | 300 Level or Higher ASEC Course - ES 313 | 3 | ENR 220 | 3 |
| Electives – 6 hrs. | | | | |
| | Elective | 3 | ENG 101 | 3 |
| | Elective | 3 | ENG 102 | 3 |
| TOTAL | | 129 | | 79 |

Transfer Policy

- Official transcripts and scores sent to Trine University.
- A grade of “C” or higher earned.