**Robotics, B.S. - Hardware Specialization**

**\*Suggested Guided Pathway**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fall Year 1 |  |  | Spring Year 1 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 119 - Introduction to UNIX/Linux | 1 |  | MAT 202 - Linear Algebra I | 3 |
| MAT 104 - Trigonometry | 1 |  | MAT 225 - Calculus II | 4 |
| MAT 224 - Calculus I | 4 |  | PHY 112 - General Physics II | 4 |
| PHY 111 - General Physics I | 4 |  | Arts/Humanities or other Gen Ed | 3 |
| RBT 122 - Physical Computing | 3 |  |  |  |
| ENG 101 - College Writing II | 3 |  |  |  |
| Total Semester Credits | 16 |  | Total Semester Credits | 14 |
|  |  |  |  |  |
| Fall Year 2 |  |  | Spring Year 2 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 221 - Introduction to Programming | 3 |  | PHY 231 - Fundamentals of Engineering Design | 3 |
| US Civ/Western Civ or other Gen Ed | 3 |  | World Sys/Language or other Gen Ed | 3 |
| Social Science or other Gen Ed | 3 |  | LIB 200 - Critical Research Skills | 1 |
| Oral Expression or other Gen Ed | 3 |  | Liberal Arts Elective | 3 |
| Liberal Arts Elective | 3 |  | Liberal Arts Elective | 3 |
|  |  |  | Liberal Arts Elective | 3 |
| Total Semester Credits | 15 |  | Total Semester Credits | 16 |
|  |  |  |  |  |
| Fall Year 3 |  |  | Spring Year 3 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 309 - Programming Language: C | 1 |  | CSC 319 - Object-Oriented Design & Prog. | 3 |
| PHY 365 - Electronics for Scientists | 4 |  | RBT 318 - Physics and Application of Sensors | 3 |
| RBT 379 - Introduction to Robotics | 4 |  | RBT 366 - Advanced Digital Design | 3 |
| Liberal Arts Elective | 3 |  | Global Issues Gen Ed | 3 |
| Elective | 3 |  | Upper Division Liberal Arts Elective | 3 |
|  |  |  |  |  |
| Total Semester Credits | 15 |  | Total Semester Credits | 15 |
|  |  |  |  |  |
| Fall Year 4 |  |  | Spring Year |  |
| Course and Title | Credits |  | Course and Title | Credits |
| RBT 380 - Control Systems Engineering | 3 |  | CSC 372 - Ethics in Technology & Information | 3 |
| Advanced CSC/PHY/RBT Elective #1 | 3 |  | RBT 401 - Robot Kinematics and Dynamics | 3 |
| Applied Learning Elective #1 | 3 |  | Advanced CSC/PHY/RBT Elective #2 | 3 |
| Upper Division Elective (300/400) | 3 |  | Applied Learning Elective #2 | 3 |
| Upper Division Elective (300/400) | 3 |  | Upper Division Elective (300/400) | 3 |
|  |  |  |  |  |
| Total Semester Credits | 15 |  | Total Semester Credits | 15 |

**Total Minimum Credits 120**

\* This represents an example of a suggested 4-year program pathway. Please consult DegreeWorks and your Advisor for your specific curriculum plan. Program pathways may change based on course availability.

**Robotics, B.S. - Programming Specialization**

**\*Suggested Guided Pathway**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fall Year 1 |  |  | Spring Year 1 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 119 - Introduction to UNIX/Linux | 1 |  | MAT 202 - Linear Algebra I | 3 |
| MAT 104 - Trigonometry | 1 |  | MAT 225 - Calculus II | 4 |
| MAT 224 - Calculus I | 4 |  | PHY 112 - General Physics II | 4 |
| PHY 111 - General Physics I | 4 |  | Arts/Humanities or other Gen Ed | 3 |
| RBT 122 - Physical Computing | 3 |  |  |  |
| ENG 101 - College Writing II | 3 |  |  |  |
| Total Semester Credits | 16 |  | Total Semester Credits | 14 |
|  |  |  |  |  |
| Fall Year 2 |  |  | Spring Year 2 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 217 - Discrete Math Computer Apps | 3 |  | CSC 223 - Data Structures and Algorithms | 3 |
| CSC 221 - Introduction to Programming | 3 |  | World Sys/Language or other Gen Ed | 3 |
| US Civ/Western Civ or other Gen Ed | 3 |  | LIB 200 - Critical Research Skills | 1 |
| Social Science or other Gen Ed | 3 |  | Liberal Arts Elective | 3 |
| Oral Expression or other Gen Ed | 3 |  | Liberal Arts Elective | 3 |
|  |  |  | Liberal Arts Elective | 3 |
| Total Semester Credits | 15 |  | Total Semester Credits | 16 |
|  |  |  |  |  |
| Fall Year 3 |  |  | Spring Year 3 |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 309 - Programming Language: C | 1 |  | CSC 319 - Object-Oriented Design & Prog. | 3 |
| CSC 336 - Software Engineering I | 3 |  | RBT 318 - Physics and Application of Sensors | 3 |
| RBT 379 - Introduction to Robotics | 4 |  | Global Issues Gen Ed | 3 |
| Liberal Arts Elective | 3 |  | Upper Division Liberal Arts Elective | 3 |
| Liberal Arts Elective | 3 |  | Liberal Arts Elective | 3 |
|  |  |  |  |  |
| Total Semester Credits | 15 |  | Total Semester Credits | 15 |
|  |  |  |  |  |
| Fall Year 4 |  |  | Spring Year |  |
| Course and Title | Credits |  | Course and Title | Credits |
| CSC 321 - Design and Analysis of Algorithms | 3 |  | CSC 372 - Ethics in Technology & Information | 3 |
| Advanced CSC/PHY/RBT Elective #1 | 3 |  | RBT 383 - Embedded Systems | 3 |
| Applied Learning Elective #1 | 3 |  | Advanced CSC/PHY/RBT Elective #2 | 3 |
| Upper Division Elective (300/400) | 3 |  | Applied Learning Elective #2 | 3 |
| Upper Division Elective (300/400) | 3 |  | Upper Division Elective (300/400) | 3 |
|  |  |  |  |  |
| Total Semester Credits | 15 |  | Total Semester Credits | 15 |

**Total Minimum Credits 120**

\* This represents an example of a suggested 4-year program pathway. Please consult DegreeWorks and your Advisor for your specific curriculum plan. Program pathways may change based on course availability.