**Example 4-Year Degree Plans with a Minor in Robotics (in blue)**

Courses that have already been completed or are in progress are in bold

**B.S in Aerospace Engineering**

|  |  |
| --- | --- |
| **Fall Year One (202X)** | **Spring Year One (202X)** |
| **CH 301: Principles of Chemistry I (3)** | **COE 301: Introduction to Computer Programming (3)** |
| **M 408 C: Differential and Integral Calculus (4)** | **M 408D: Sequences, series, and multivariate calculus (4)** |
| **RHE 306: Rhetoric and Writing (3)** | **PHY 303K: Engineering Physics I (3)** |
| **UGS 302/303: First Year Seminar (3)** | **PHY 105M: Laboratory for Physics 3030K (3)** |
| **Approved Social Science (3)** | **GOV 310L: American and Texas Gov (3)** |
|  | **American History (3)** |
| Fall Year Two (202X) | Spring Year Two (202X) |
| **ME 310T: Applied Thermodynamics (3)** | **COE 311K: Engineering Computation (3)** |
| **EM 306: Statics (3)** | **EM 311M: Dynamics (3)** |
| **M 427J: Differential Equations with Linear Algebra (4)** | **EM 319: Mechanics of Solids (3)** |
| **PHY 303L: Engineering Physics II (3)** | **ES 333T: Engineering Communication (3)** |
| **PHY 105N: Laboratory for Physics 303L (1)** | **M 427L: Advanced Calculus for Applications II (4)** |
| **ME 210: Engineering Design Graphics** |  |
| Fall Year Three (202X) | Spring Year Three (202X) |
| ASE 320: Low-Speed Aerodynamics (3) | ASE 362K: Compressible Flow (3) |
| ASE 120K: Low-Speed Aero Laboratory (1) | Visual and Performing Arts (3) |
| ASE 330M: Linear System Analysis (3) | ASE 375: Electromechanical Systems (3) |
| ASE 366K: Spacecraft Dynamics (3) | Structures Elective (3):  |
| E 316L/M/N/P: Masterworks of Literature (Humanities) (3) | RBT 350: Gateway to Robotics Course |
| GOV 312L/P: American and Texas Gov (3) | Aerospace Elective 1 (3) |
| Fall Year Four (202X) | Spring Year Four (202X) |
| ASE 370C Feedback Control Systems (3) (modeling & control) | ASE 324L: Aerospace Materials Laboratory (3) |
| ASE 376K: Propulsion (3) | Design Course (3) |
| Aerospace Elective 2 (3): COE 379L.1 Intro to Machine Learning and Data Sciences (machine learning) | Aerospace Elective 3 (3): ASE 479W Aerial Robotics (4) (sensing, perception, & planning) |
| Design Courses (4) | American History (3) |
| ASE 367K: Flight Dynamics (3) | ME 350R Robot Mechanism Design (3) (hardware) |

Summer Classes:

**Example 4-Year Degree Plans with a Minor in Robotics (in blue)**

Courses that have already been completed or are in progress are in bold

**B.S in Computational Engineering**

|  |  |
| --- | --- |
| **Fall Year One (202X)** | **Spring Year One (202X)** |
| **CH 301: Principles of Chemistry I (3)** | **COE 301: Introduction to Computer Programming (3)** |
| **M 408C: Differential and Integral Calculus (4)** | **M 408D: Sequences, Series, and Multivariate Calculus (4)** |
| **RHE 306: Rhetoric and Writing (3)** | **PHY 303K: Engineering Physics I** |
| **UGS 302/303: First Year Seminar (3)** | **PHY 105M: Laboratory for Physics 303K (1)** |
| **Social Science (3)** | **ME 201: Engineering Design Graphics (2)** |
|  | **American History (3)** |
| **Fall Year Two (202X)** | **Spring Year Two (202X)** |
| **ME 310T: Applied Thermodynamics (3)** | **COE 311K: Engineering Computation (3)** |
| **EM 306: Statistics (3)** | **COE 332: Software Engineering and Design (3)** |
| **M 427J: Differential Equations with Linear Algebra (4)** | **EM 311M: Dynamics (3)** |
| **PHY 303L: Engineering Physics II (3)** | **M 427L: Advanced Calculus for Applications II (4)** |
| **PHY 105N: Laboratory for Physics 303L (1)** | **GOV 310L: American and Texas Gov (3)** |
| **COE 322: Scientific Computation (3) (programming)** |  |
| **Fall Year Three (202X)** | **Spring Year Three (202X)** |
| ASE 320: Low-Speed Aerodynamics (3) | COE 321K: Computational Methods for Structural Analysis (3) |
| COE 352: Advanced Scientific Computation (3) | COE 347: Introduction to Computational Fluid Dynamics (3) |
| M 362K: Probability I (3) | ASE 330M: Linear System Analysis (3) (modeling & control) |
| EM 319: Mechanics of Solids (3) | ES 333T: Engineering Communication (3) |
| Technical Elective (3): RBT 350: Gateway to Robotics | E 316L/M/N/P: Masterworks of Literature (Humanities) (3) |
| **Fall Year Four (202X)** | **Spring Year Four (202X)** |
| ASE 375: Electromechanical Systems (3) | COE 374: Senior Design Project (3) |
| Technical Elective (3): COE 379L.1 Intro to Machine Learning & Data Sciences (machine learning) | Technical Elective (3): ASE 479W Aerial Robotics (sensing, perception & planning) |
| Technical Elective (3):  | Technical Elective (3): |
| Gov 312L/P: American and Texas Gov (3) | American History (3) |
| Visual and Performing Arts (3) | ME 350R Robot Mechanism Design (3) (hardware) |

Summer Classes:

**Example 4-Year Degree Plans with a Minor in Robotics (in blue)**

Courses that have already been completed or are in progress are in bold

**B.S. in Electrical & Computer Engineering**

|  |  |
| --- | --- |
| **Fall Year One (202X)** | **Spring Year One (202X)** |
| **ECE 302: Introduction to Electrical Engineering (3)** | **ECE 319K: Introduction to Embedded Systems (3)** |
| **ECE 306: Introduction to Computing (3)** | **M 408D: Sequences, Series, & Multivariable Calculus (4)** |
| **M 408C: Differential & Integral Calculus (4)** | **PHY 303K: Engineering Physics I (3)** |
| **UGS 302/303: First Year Seminar (3)** | **PHY 105M: Laboratory for PHY 303K (1)** |
| **RHE 306: Rhetoric and Writing (3)** | **Visual and Performing Arts (3)** |
| **Fall Year Two (202X)** | **Spring Year Two (202X)** |
| **ECE 411: Circuit Theory (4)** | **ECE 312: Software Design & Implementation I (3)** |
| **M 427J: Differential Equations (4)** | **ECE 313: Linear Systems & Signals (3)** |
| **PHY 303L: Engineering Physics 2 (3)** | **M 340L: Matrices & Matrix Calculations (3)** |
| **PHY 150N: Laboratory for PHY 303L (1)** | **GOV 310L: American Government (3)** |
| **Social Science (3)** | **E 316L/M/N/P: Humanities (3)** |
| Fall Year Three (202X) | **Spring Year Three (202X)** |
| ECE 333T: Engineering Communications (3) | Advanced Tech Elective (3): |
| ECE 351K: Probability/Random Processes (3) | Free Elective (Math or science) (3): |
| Advanced Tech Component Math (3 or 4) | Advanced Tech Component Lab (4): ECE 445L Embedded Systems Design Lab (programming or sensing, perception & planning) |
| Advanced Tech Component (3): | Advanced Tech Component (3): |
| Advanced Tech Component (3): | Free Elective (4): ME 350R Robot Mechanism Design (3) (hardware) |
| RBT 350: Gateway to Robotics Course (3) |  |
| Fall Year Four (202X) | **Spring Year Four (202X)** |
| ECE 364 D/E: Intro to Engineering Design (3) | ECE 464 K/H/R/S: Senior Design Project |
| Advanced Tech Component (3) | Advanced Tech Component (3): ECE 362K Introduction to Autonomic Control (modeling & control) |
| Advanced Tech Component (3) | Free Elective (3):  |
| Free Elective (3): ME 369P Application Programming for Engineers (3) (programming) | American History (3) |
| American History (3) | GOV 312L: American Government (3) |
|  |  |

Summer Classes:

**Example 4-Year Degree Plans with a Minor in Robotics (in blue)**

Courses that have already been completed or are in progress are in bold

**B.S. in Mechanical Engineering**

|  |  |
| --- | --- |
| **Fall Year One (202X)** | **Spring Year One (202X)** |
| **CH 301: Principles of Chemistry I (3)** | **M 408D: Sequences, Series & Multivariable Calculus (4)** |
| **M 408C: Differential & Integral Calculus (4)** | **PHY 303K: Engineering Physics (3)** |
| **ME 302: Intro to Engineering Design and Graphics (3)** | **PHY 105M: Lab for PHY 303K (1)** |
| **RHE 306: Rhetoric & Composition 1 (3)** | **Visual and Performing Arts (3)** |
| **UGS 302/303: First Year Seminar (3)** | **Social Science (3)** |
|  | **ME 333T: Engineering Communication (3)** |
| **Fall Year Two (202X)** | **Spring Year Two (202X)** |
| **M 427J: Differential Equations with Linear Algebra (4)** | **M 427L: Advanced Calculus for Applications II (4)** |
| **PHY 303L: Engineering Physics II (3)** | **EM 319: Mechanics of Solids** |
| **PHY 105N: Lab for PHY 303L (1)** | **ME 318M: Intro to Computer & Engineering Computational Methods** |
| **EM 306: Statistics (3)** | **ME 314D: Dynamics (3)** |
| **ME 316T: Thermodynamics (3)** | **US History (3)** |
| **American and Texas Government (3)** |  |
| Fall Year Three **(202X)** | Spring Year Three **(202X)** |
| ME 330: Fluid Mechanics (3) | ME 339: Heat Transfer (3) |
| ME 130L: Experimental Fluid Mechanics | ME 139L: Experimental Heat Transfer (1) |
| ME 334: Materials Engineering | ME 338: Machine Elements (3) |
| ME 134L: Materials Engineering Lab (1) | ME 340: Mechatronics (3) |
| ME 335: Engineering Statistics (3) | ME 140L: Mechatronics Lab (1) |
| US History (3) | Approved Career Gateway Elective (3) |
| RBT 350: Gateway to Robotics Course (3) | CS 363M: Principles of Machine Learning I (3) (machine learning) |
| Fall Year Four **(202X)** | Spring Year Four **(202X)** |
| ME 344: Dynamic Systems and Controls (3) | ME 266K: Mechanical Engineering Design Project (2) |
| ME 144L: Dynamic Systems and Controls Lab (1) | ME 266P: Design Project Laboratory (2) |
| ME 353: Engineering Finance (3) | Approved Career Gateway Elective (3): ECE 362K Introduction to Automatic Control (modeling & control) |
| ME 366J: Mechanical Engineering Design Methodology (3) | Approved Career Gateway Elective (3): ME 350R Robot Mechanism Design (hardware) |
| Career Gateway Elective (3): ME 372J Robotics & Automation (sensing, perception & planning) | Approved Math or Natural Science Elective (3) |
| American and Texas Gov (3) | E 316: Masterworks of Literature (3) |

Summer Classes:

**Example 4-Year Degree Plans with a Minor in Robotics (in blue)**

Courses that have already been completed or are in progress are in bold

**B.S. in Computer Science**

|  |  |
| --- | --- |
| **Fall Year One (202X)** | **Spring Year One (202X)** |
| **CS 312: Intro to Programming (3)** | **CS 311: Discrete Math (3)** |
| **M 408N: Calculus 1 (4)** | **CS 314: Data Structures (3)** |
| **UGS 302/303: First Year Seminar (3)** | **M 408S: Calculus 2 (4)** |
| **HIS 315K: History 1 (3)** | **RHE 306: Rhetoric & Composition 1 (3)** |
| **Social Science (3)** | **HIS 315L: History 2 (3)** |
| **Fall Year Two (202X)** | Spring Year Two **(202X)** |
| **CS 429: Comp. Org & Arch (4)** | **CS 439: Operating Systems (4)** |
| **M 408M: Calculus 3 (4)** | **CS Upper Division Elective (3):** |
| **SDS 321/M 362K: Probability/Statistics (3)** | **M 340L/SDS 329C: Matrices/Linear Algebra (3)** |
| **GOV 310L: American Government (3)** | **GOV 312L: Texas Government (3)** |
| **General Elective (3):**  | **General Elective (3):** |
| **Fall Year Three (202X)** | Spring Year Three **(202X)** |
| CS 331: Algorithms (3) | CS UDE #3 (3): CS 378 Autonomous Driving (sensing, perception & planning) |
| CS UDE #2 (3): | CS UDE #4 (3): |
| Science Sequence Part 1 (3-4): | Science Sequence Part 2 (3-4): |
| Foreign Lang. Or Culture (3-6): | Foreign Lang. Or Culture (3-6): |
| General Elective (3): RBT 350: Gateway to Robotics Course (3) | General Elective (3): ME 350R Robot Mechanism Design (hardware) |
| **Fall Year Four (202X)** | Spring Year Four **(202X)** |
| CS UDE #5 (3):  | CS UDE #7 (3): CS 343 Artificial Intelligence (machine learning) |
| CS UDE #6 (3): | CS UDE #8 (3): |
| Additional math or science (3): | Visual & Performing Arts (3): |
| E 316L/M/N/P: Literature (3): | General Elective (3):  |
| General Elective (3): ME 369P: Application Programming for Engineers (programming) | General Elective (3):  |

Summer Classes: