BS Degrees in ESE

Year 1
- Fall: ESE 260 Intro to Digital Logic (3 Credits)
- Spring: CSE 131 Computer Science I (3 Credits)

Year 2
- Fall: ESE 205 Intro to Electrical Engineering Design (3 Credits)
- Spring: ESE 230 Intro to Electric & Electronic Circuits (4 Credits)

ESE Core Years 1-2
- CSE 132 or 247 CS Course (3 Credits)
- Math 132 Calculus II (3 Credits)
- Math 233 Calculus III (3 Credits)
- Math 217 Differential Equations (3 Credits)
- Chem 111A General Chemistry I (3 Credits)

ESE Core Years 1-2 (continued)
- Phys 117A General Physics I (4 Credits)
- Phys 118A General Physics II (4 Credits)
- Chem 151 General Chemistry Laboratory I (2 Credits)

ESE Core Years 1-2 (continued)
- ESE 232 Intro to Electronic Circuits (3 Credits)
- ESE 326 Probability and Statistics (3 Credits)
- ESE 319 Engineering Mathematics "A" (3 Credits)

Year 3-4
- ESE 441 Control Systems (3 Credits)
- ESE 403 or 415 Operations Research or Optimization (3 Credits)
- ESE 450 or 481 Control Laboratory (3 Credits)
- ESE 498 EE Capstone Design (3 Credits)
- Elective EE (3 Credits)

Elective Areas
- Devices and Circuits
- Optics and Photonics
- Quantum Engineering
- Imaging and Signal Processing
- Control, CPS and IoT
- Dynamics and Data
- Optimization and Theory of Learning

General Requirements for EE and SSE
- EE Requirements
- SSE Requirements

Elective Topics 45 units
120 Units Total