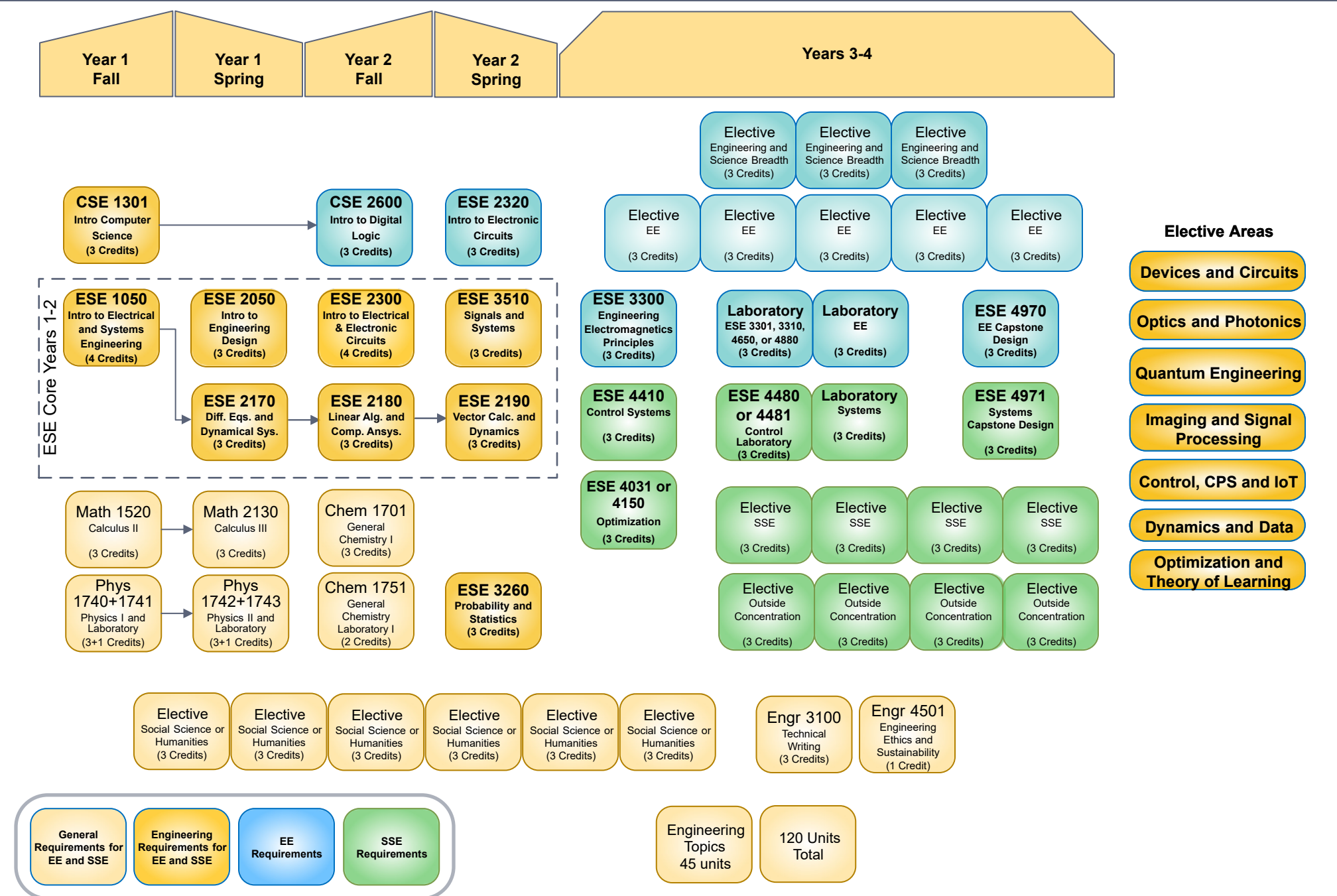


BS Degrees in ESE



Represents 2025-26 requirements, some prerequisites not included. See the Bulletin for details, <https://bulletin.wustl.edu/undergrad/engineering/majors/>.

EE & SSE elective lists 2025-26

EE elective list

Elective lists for all EE programs are nearly identical, with the BS AS degree, 2nd major, and minor mostly following the BS EE rules. The [BS EE program](#) lists these requirements:

Requirements for the EE electives:

- a. 15 units in electrical engineering subjects from the following list: ESE 2992, ESE 3301–3990, ESE 4100–4260, ESE 4290–4999 and ESE 5030–5890. (Electives cannot be used to satisfy other requirements in the degree program.)
- b. Students must take at least two courses from ESE 4290, ESE 4301, ESE 4310, ESE 4330, ESE 4360, ESE 4380, ESE 4410, ESE 4610, ESE 4710, and ESE 4820.
- c. No more than 6 units of the combined units of ESE 2992, ESE 4991, ESE 4992, and ESE 4999 may be applied.
- d. No more than 3 credits of 5000-level courses may be applied.

In addition, several CSE courses in computer engineering hardware have historically been cross-listed in ESE. Course cross-listing is not available in workday, so those courses will eventually be identifiable as EE electives. These CSE courses can be used as EE electives:

- CSE 3602 (362M) Computer Architecture
- CSE 4603 (463) Digital Integrated Circuit Design and Architecture
- CSE 4607 (467) Embedded Computing Systems
- CSE 5600 (560M) Computer Systems Architecture I

These BME courses are allowed as EE electives:

- BME 5700 (formerly cross-listed as ESE 5931) Mathematics of Imaging Science

These ESE courses **do not** count as EE electives since they do not have sufficient EE content (they do count as SSE electives)

- ESE 3090 Special Topics in Systems Engineering: Modeling and Design of Social Choice Systems
- ESE 4031 Optimization for Engineered Planning, Decisions and Operations
- ESE 4270 (427) Financial Mathematics

These ESE courses **do** count as EE electives, even though they're not included in the Bulletin list:

- ESE 4210 Decision and Estimation Theory for Discrete Stochastic Processes
- ESE 3050 Special Topics in Robotics: Practicum in Robotic Systems Design (can count as EE lab, non-preferred)

SSE elective list

Elective lists for all SSE programs are nearly identical, with the BS AS degree, 2nd major, and minor mostly following the BS SSE rules. The [BS SSE program](#) lists these requirements:

Requirements for the BSSSE electives:

- a. 12 units in elective courses in systems science and engineering are required: ESE 2992, ESE 3590, ESE 4000–4280, ESE 4370, ESE 4400–4590, ESE 4700–4999, ESE 5020–5290 and ESE 5400–5590.
- b. No more than 6 units of the combined units of ESE 2992, ESE 4991, ESE 4992, and ESE 4999 may be applied.

These BME courses are allowed as SSE electives:

- BME 5700 (formerly cross-listed as ESE 5931) Mathematics of Imaging Science

These ESE courses **do not** count as SSE electives since they do not have sufficient SSE content (they do count as EE electives)

- ESE 3300 Engineering Electromagnetics Principles
- ESE 3301 Electromagnetics Laboratory: Spectrum From Radio to Photonics
- ESE 3310 Electronics Laboratory
- ESE 43XX All 43xx courses (4301, 4330, 4340, 4350, 4360 in FL25)

These ESE courses **do** count as SSE electives, even though they're not included in the Bulletin list:

- ESE 3050 Special Topics in Robotics: Practicum in Robotic Systems Design (can count as SSE lab, non-preferred)
- ESE 3090 Special Topics in Systems Engineering: Modeling and Design of Social Choice Systems