

Elective Tracks for BSEE students.

In addition to the core BSEE course requirements, students elect four courses to gain a deeper understanding of one or two areas within the field of Electrical Engineering. The tracks and the courses used to fulfil those tracks are listed below.

Students may either complete two tracks (for a total of four electives), or one track (two electives) PLUS eight credits in technical courses above 200 level as pre-approved by the program director.

Each track will be satisfied by completing **two courses** from those listed below.

Power Track

- ETL5 744 Intro to Power Systems [*required in track*] (3 credits)
- ETL5 746 Power Electronics (3 credits)
- ETL5 747 Electrical Machines (3 credits)
- ETL5 748 Renewable Energy and the Future (3 credits)

Signal Processing & Communications Track

- ETL5 620 Analog Communications [*required in track*] (3 credits)
- ETL5 621 Digital Communications (3 credits)
- ETL5 675 Digital Signal Processing (3 credits)
- ETL5 676 Real Time DSP (3 credits)
- ETL5 810 Advanced Control Systems (3 credits)

Embedded Systems Track

- ENGR 330 Microprocessor Architectures (4 credits)
- ENGR 431 Embedded Systems (4 credits)
- ENGR 432 Current Trends in Computing Systems (4 credits)

E&M Track

- PHYS 347 Optics (4 credits)
- ETL5 751 Electromagnetic Fields and Waves (3 credits)

Physics Track

- PHYS 215 Modern Physics (4 credits)
- And four credits of physics electives as approved by the chair