

Graduate International Pathway: Electrical Engineering track

Course Options

- **EE 5123. Computer Architecture. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor. Description of digital computer systems, arithmetic algorithms, central processor design, memory hierarchies and virtual memory, control unit and microprogramming, input and output, coprocessors, and multiprocessing.
 - **Semesters available:** Fall, spring.

- **EE 5143. Linear Systems and Control. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor. Advanced methods of analysis and synthesis of linear systems, continuous and discrete-time systems, analytical approach to linear control theory.
 - **Semesters available:** Fall, spring.

- **EE 5163. Digital Signal Processing. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor. Study of discrete-time signals and systems, including Z-transforms, fast Fourier transforms, and digital filter theory. Filter design and effects of finite register length, and applications to one-dimensional signals.
 - **Semesters available:** Fall, spring.

- **EE 5183. Foundations of Communication Theory. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor, completion of EE 5153 recommended. Basis functions, orthogonalization of signals, vector representation of signals, optimal detection in noise, matched filters, pulse shaping, intersymbol interference, maximum likelihood detection, channel cutoff rates, error probabilities, bandwidth, and power-limited signaling.
 - **Semesters available:** Fall.

- **EE 5693. Dielectric and Optoelectronic Devices. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor. Introduction to functional dielectric and optoelectronic materials and devices. Dielectric polarization, relaxation, loss and breakdown properties. Mechanisms of piezoelectric, pyroelectric, and electro-optic properties of solid state materials.
 - **Semesters available:** Fall.