

Graduate International Pathway: Advanced Materials Engineering track

Course Options

- **MATE 5103. Principles of Materials Engineering: Fundamentals of Structure, Chemistry, and Physical Properties. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Graduate standing or consent of instructor. Overviews of the fundamental underpinnings of structure-property relations of materials, which determines their behavior at the macro-, micro-, nano-, molecular- and atomic-levels, as used in passive and active components and systems for applications such as sensing, actuation, energy conversion and storage.
 - **Semesters available:** Fall.

- **MATE 5113. Functions, Evaluations and Synthesis Technology of Advanced Materials. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: MATE 5103 or consent of instructor. Introduction to state-of-the-art materials processing, properties evaluation, and performance optimization of semiconductor, electroceramics, composites, nanomaterials, and thin films.
 - **Semesters available:** Spring.

- **MOT 5163. Management of Technology. (3-0) 3 Credit Hours.**
 - **Course description:** Prerequisite: Consent of instructor. Examines a broad range of topics and issues involved in the management of technology, including the international research and development environment and infrastructure; government, industry, and university roles in technology development; managing the research and development function; technology forecasting and assessment; and new product development.
 - **Semesters available:** Fall.