

Message from Coordinator: Engineering Management



The Engineering Management Specialization offers engineering students having an interest in the business aspects of engineering a bridge to this area of study in the School of Business. It does this while still providing a strong base in engineering fundamentals. All Engineering Management majors take a diverse combination of mechanical and electrical engineering courses and then select further specialization in mechanical, electrical, and computer engineering. Graduates thus receive a well-balanced education, making this degree an ideal choice for those interested in product management, business development of technology, and working in an entrepreneurial setting. Our alumni have also continued their education beyond TCNJ at reputable graduate programs in Engineering, Business Administration, Management, and Physics.

All Engineering Management seniors engage in a two semester design project that will provide the hands-on practical experience that has earned TCNJ graduates the reputation of being work-ready. These seniors have managed the engineering teams competing in regional or national design competitions as the IEEE's Micromouse, SAE's Mini Baja car and Aero Design competitions, as well as assuming responsibility for designing and fabricating critical components of these projects. Skills and knowledge acquired in previous years are put into true application, requiring students to critically think beyond the traditional structure of a textbook.

TCNJ's engineering programs offer a caring learning environment, enhanced by high quality faculty, staff, facilities, and equipment; individualized attention from highly qualified professors, no teaching assistants and small class sizes. The environment includes exceptional instruction; frequent opportunities for relevant laboratory experience; practice of communication, design, and teamwork skills; and the challenge of undertaking realistic engineering projects.

Lisa Grega, Ph.D.

Message from Coordinator: Policy & Society

There is an increasing need for professionals and educators in the field of engineering to integrate social considerations into their work and practice, whether it is assessing the implications of new technologies on an individual's civil/privacy rights or developing engineering solutions that have potential impacts on the environment. As such, TCNJ's School of Engineering has incorporated aspects of Engineering for Social Justice within its curriculum. Engineering for Social Justice examines the development of structures, devices, technologies, and methods that address problems relevant to environmental concerns, public policy, social contexts, legal and ethical implications, and global policy. How may engineering be used to improve the lives of the disadvantaged and the underrepresented? One example is the development of low-cost energy generation and information access technologies for third-world countries.

In the Policy & Society Specialization, students take a robust mix of mechanical and electrical engineering coursework, coupled with additional courses grounded in the political and social sciences. This coursework can be chosen from a wide array of topics, enabling great flexibility to either sample from many fields or specialize in a specific area such as environmental, public policy, social justice, legal, or political themes. Students also complete an internship which may be taken locally or in Washington DC. Like with all School of Engineering programs, a senior capstone experience is required under this specialization, in which students work as part of an engineering team to design and fabricate a complex engineering system. This educational option would serve well students that want to pursue an accredited and licensable engineering degree program, but provides the flexibility to work in either traditional engineering roles or in para-technical fields in government agencies; such as FBI, NSA, CIA, NIH, DOE, DOD, or in roles involving the bridging of engineering solutions with policy. The program also serves well students who want to pursue an engineering degree prior to entering law school.

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