Master of Arts in Teaching (MAT) Secondary Education—Technology/Pre-Engineering Education

In collaboration with the School of Education, the Department of Technological Studies (School of Engineering) at The College of New Jersey has created a STEM focused Master of Arts in Teaching (MAT) in Technology/Pre-Engineering Education. The new secondary education graduate major leads to initial certification to teach Technology and Pre-Engineering Education in 7-12 classrooms in New Jersey. This Master’s Degree was designed for anyone with a baccalaureate degree in a design field, such as engineering, architecture, or industrial design.

Kevin Mastropietro (far left) with Dr. Karsnitz and undergraduate students at the Virginia Beach TECA Regional Conference

Contact the program coordinator to answer additional questions or schedule a visit:
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Earn Your Master’s Degree and Initial Teacher Certification In Only 13 Months at The College of New Jersey
Frequently Asked Questions:

What is Technology/Pre-Engineering Education?
Technology/Pre-Engineering Education is a study of the human designed world — understanding, assessing, and applying content at various levels of K-12 instruction. One of the goals of science, technology, engineering, mathematics (STEM) education is to have all students gain an understanding of the importance of technology and engineering and other design fields to society.

Is there a national curriculum for Pre-Engineering?
Yes, new pre-engineering curricula have emerged nationally, including Project Lead The Way (PLTW) and Engineering by Design (EdD). The Department is a PLTW Pre-service affiliate.

How is the program organized?
MAT students take courses in both the School of Engineering and Education where extensive field-based classroom experiences are provided. Students also have many opportunities to interact with undergraduate majors in Technology/Pre-Engineering Education and M/S/T (K-5 certification). MAT students are encouraged to participate in the many professional and social activities sponsored by the department and the very active Technology Education Society (TES).

SUMMER I
EDUC 501/Exploring Teaching
EPSY 513/Psychology of Learning or
EPSY 524/Adolescent Development & Education

FALL
SCED 694/Internship I
RDLG 597/Content Area Literacy
TCED 591/Foundations of Design & Engineering
TCED 592/Inclusive Methods in Technology Education

SPRING*
EDUC 614/Creating & Sustaining Classroom Communities
SCED 695/Internship II
TCED 691/Seminar: Facilities Design & Management

SUMMER II*
EDUC 513/Collaboration, Consultation & Partnerships
EDUC 615/Project Capstone
TCED 690 Advanced Curriculum in Design & Engineering
TCED 700/Comprehensive Exam

What documents are required for application?

- Program Code: EDTE_MAT01 Technology Education
- Complete the online application, at www.tcnj.edu/graduate/application.html
- Application Fee ($75)
- Essay
- Two Letters of Recommendation
- Official Transcripts
- GRE Scores

How do I know if the GRE is required?
Students are exempt from the GRE requirement if they already have an earned master's degree, have an earned bachelor's degree from TCNJ with a 3.0 GPA or a 3.2 GPA from another accredited college/university, or have taken two graduate courses at TCNJ with a 3.5 GPA.

What is considered during the Transcript Review?
NJDOE requires that candidates for the Technology Education certificate have completed the following items:
- 3 credits in Technology & Society, Technological Design, and Tools and Materials
- 3 credits in 3 of the 7 areas of technological studies
- 12 credits of 300-level study in one area of specialization
- State hygiene requirement through an approved class or test

Candidates with a major in architecture, industrial design, or one of the engineering disciplines typically meet these requirements. Students with majors in other design fields may need to take some additional course work.

*PRAXIS Exam #10050 required for NJ State Certification

What Graduates Have to Say...

Kevin Mastropietro
’10 MAT Graduate
Technology/Pre-Engineering Teacher
Hunterdon Central Regional High School

“It’s great to be able to do something I love and have a passion for everyday. Technology is always changing and it will keep me fresh and up to date as a life-long learner. In my new career, I have considerable freedom to define my curriculum. The technology field excels at problem/project-based learning, and students and schools find this appealing.”

Laura Kinney
’09 MAT Graduate
Technology/Pre-Engineering Education Teacher
Pennsauken High School

“My experience at the College was overwhelmingly positive. The MAT Technology/Pre-Engineering Education program prepared me for success in the field. During the program I encountered professionals who were tremendously kind and accommodating. I have been inspired by the many teachers who welcomed me into their classrooms. I would recommend the program to anyone interested in pursuing a career in teaching.”