

Technology Education

A Teacher Education Program



Department of Engineering Technology

New Jersey Institute of Technology

WHY STUDY TECHNOLOGY EDUCATION?

The greatest current need of U.S. education is for highly qualified teachers of science and technology at the secondary school level. According to the U.S. Bureau of Labor Statistics, the shortage will intensify over the next decade as teachers of the “baby boom” generation retire. Technology-savvy teachers who are able to incorporate newly-developing educational methodologies and technologies into the curriculum are also in high demand.

WHY STUDY TECHNOLOGY EDUCATION AT NJIT?

Nationwide, middle and high schools are facing a looming shortage of technology teachers. New Jersey alone will need more than 900 by 2015. With more than half of the current technology teachers retiring in the next decade, successful school programs have been and may be forced to close. Technology education teachers are hired at a premium over other areas with nearly 100% placement of graduates/candidates. The Technology Education program is a partnership between New Jersey Institute of Technology and Rutgers University, Newark, offering a degree in Engineering Technology and an instructional certification with the Teacher of Technology Education (1810) endorsement. This program has been approved by the New Jersey Department of Education.

WHAT WILL YOU LEARN?

Technology teachers teach problem-based learning utilizing math, science and technology principles. Technological studies involve students:

- Designing, developing, and utilizing technological systems such as communication, transportation, manufacturing, and construction technologies.
- Performing open-ended, problem-based design activities.
- Learning cognitive, manipulative, and affective learning strategies.
- Applying technological knowledge and processes to real world experiences using up-to-date resources.
- Working individually as well as in a team to solve problems (International Technology Education Association Standards).

WHAT TECHNOLOGY TEACHERS SAY

A 1998 study published in the Journal of Technology Education polled over 100 outstanding K-12 technology teachers nationwide for research on several fronts, including reasons why they like to teach technology education. Here are the top ten reasons:

- Enjoyment and stimulation of learning and using new technologies.
- The rewards of making a meaningful difference in the lives of students.
- Enjoyment of the kids.
- Freedom and flexibility to be creative in developing the curriculum, selecting activities and delivering content.
- The hands-on, action based nature of technology education.
- Involving students in problem solving and design activities.
- Engaging students in authentic and relevant content and activities.
- Opportunity to participate in professional technology education associations.
- Student interest in technology education.
- Collaborating with teachers from other academic areas.

HOW DOES THE PROGRAM WORK?

Students may enter this program as a freshman, or transfer into this program from an Engineering Technology or Pre-Engineering program at a two year college. The program consists of 128 credits,

with 30 credits of education at Rutgers University, Newark, including one semester of student teaching. This program will cover material in a variety of Engineering Technology disciplines.

WHO SHOULD CONSIDER THE TECHNOLOGY EDUCATION PROGRAM?

The Technology Education program is for the dedicated student, since candidates for a teacher-education certificate must have a 2.8 cumulative grade point average to successfully complete their teacher education program. They also must pass the appropriate PRAXIS examination before the New Jersey State Department of Education will issue the appropriate certificate.

IS FINANCIAL AID AVAILABLE?

The Office of Student Financial Aid Services helps to provide NJIT students with every opportunity to obtain funding to support their educational costs. The university encourages all students to apply for financial aid.
www.njit.edu/admissions/financialaid/

NJIT undergraduates can also offset educational costs by participating in the Cooperative Education Program, which provides a student with the opportunity to gain practical work experience in a professional environment. A co-op student works on a full-time or part-time basis for a company that has agreed to hire, train, and pay the student during a specific co-op work cycle.
www.njit.edu/cds/students/co-op/index.php

NJIT AT A GLANCE

- New Jersey's Science and Technology University, founded in 1881.
- Enrollment of just over 8,200 undergraduate and graduate students in six schools allows small-college intimacy with big university resources.
- 45-acre campus with a recently-completed \$83-million construction program featuring a new Campus Center.
- A *U.S. News and World Report* “Top National University” and a *Princeton Review* “Best College” and “Best Value” school.
- Ranks 7th in the nation in diversity with students from more than 100 countries.
- 13:1 faculty-student ratio.

FOR FURTHER INFORMATION

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TO APPLY

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www.njit.edu/admissions/undergraduate/applying/index.php