

## COLLEGE OF ENGINEERING

### DEGREE PROGRAMS

Biomedical Engineering  
Civil & Environmental Engineering  
Computer Engineering  
Construction Engineering & Management  
Electrical & Computer Engineering  
Mechanical Engineering

[www.marquette.edu/engineering](http://www.marquette.edu/engineering)

## COLLEGE OF EDUCATION

Organized around the principles of social justice, the education curriculum of the College of Education satisfies both Marquette University and state of Wisconsin licensure requirements for teacher certification in grades 6-12.

In addition to education coursework, students participate in 100 hours of field experience in diverse settings in middle and secondary schools. Formal educational preparation culminates in a semester of student teaching in the Milwaukee area.

[www.marquette.edu/education](http://www.marquette.edu/education)

## NATIONAL SCIENCE FOUNDATION: ROBERT NOYCE TEACHER SCHOLARSHIP PROGRAM

The Robert Noyce Teacher Scholarship Program seeks to encourage talented science, technology, engineering, and mathematics majors and professionals to become K-12 mathematics and science teachers. The program provides funds to institutions of higher education to support scholarships, stipends, and academic programs for undergraduate STEM majors and post-baccalaureate students holding STEM degrees who commit to teaching in high-need K-12 school districts.

[www.nsf.gov](http://www.nsf.gov)



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**MARQUETTE**  
UNIVERSITY

COLLEGE OF ENGINEERING  
COLLEGE OF EDUCATION

## NOYCE SCHOLAR PROGRAM

# PREPARATION OF FUTURE STEM TEACHERS



# Noyce Engineering/Science Teacher Education Scholars

## EDUCATION COURSES

EDUC 1210	Intro to Schooling in Diverse Society
EDUC 1220	Psychology of Human Development in Children & Adolescents
EDUC 2037	Literacy in Content Areas
EDUC 2227	Learning & Assessment
MATH 3030	The Teaching of Mathematics
EDUC 4017	Teaching Middle/Secondary Science
EDUC 4217	Children & Youth with Exceptional Needs
EDUC 4297	Teaching in Middle School
EDUC 4965	Student Teaching

## TEACHING CO-OP EXPERIENCES

Year 2 (SO)	EDUC 1210 (spring) EDUC 1220: middle school (summer)
Year 3 (JR)	Co-op #1: high school (fall) EDUC 2037 EDUC 2227 EDUC 4217 Outreach: Project Based Learning (summer)
Year 4 (SR)	Co-op #2: middle school (spring) MATH 3030/EDUC 4017 EDUC 4297
Year 5 (SR+)	Co-op #3: high school (fall) EDUC 4965

## PROGRAM MOTIVATION

The national demand for teachers of science, technology, and math (STEM) continues to grow. This Marquette University Engineering / Education initiative prepares interested undergraduates to become licensed teachers who can help meet the STEM-related needs of our increasingly global society through the effective education of middle and high school students.

## SCHOLAR AWARDS & SCHOLARSHIPS

With the support of the National Science Foundation, this Noyce Scholar Program also provides scholarship support for students during their 3<sup>rd</sup>-5<sup>th</sup> years of study. Scholarship awards require future STEM teaching in a high need school.

## PARTNER SCHOOLS

This Noyce Scholar Program involves a partnership of three colleges at Marquette University (Education, Engineering, and Arts and Sciences) and eight local schools:

- Brown Deer High School
- Dominican High School
- Messmer High School
- Milwaukee High School of the Arts
- Rufus King High School
- South Milwaukee High School
- Fritsche Middle School
- South Milwaukee Middle School

The purpose of this partnership program is to attract, prepare, and retain STEM teachers for service in these and other high-need schools.

## NOYCE SCHOLAR PROGRAM

The Noyce Scholar Program is based on an adaptation of the cooperative education model that has successfully prepared Marquette University engineers for 90 years into a similar program of preparation for engineering and science students desiring to become STEM teachers. Through this uniquely adapted cooperative education model, intensive field experiences in education (i.e., teaching co-ops) are integrated with classroom instruction to meet the Wisconsin state standards for STEM teacher licensure.

The Noyce Scholar program allows engineering students to complete their engineering degree and STEM teaching certification in 5 years.

## PROGRAM GOALS

The goal of this program is to formalize a unique educational opportunity for students to pursue a traditional engineering degree and also become certified to teach in a STEM discipline. This may be customized for any of the engineering majors.

Graduates will complete:

- Bachelor of Science degree in engineering discipline
- Major in Education
- Major in Science (biology, chemistry, physics, or broad field science) or Mathematics
- Teaching certification in Science or Mathematics