

# Pre-Engineering ! College of Science and Mathematics

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## About the Program

### Overview

Students may earn an Engineering degree through special arrangements between Madonna University and the University of Detroit Mercy. Following a planned program fulfilling the degree requirements of each institution, the student may earn a Bachelor of Science degree from Madonna University and a Bachelor of Engineering degree from the University of Detroit Mercy.

### Program Specifics

- Knowledgeable advisors steer students toward career goals.
- Students have the flexibility to choose courses that best fit their needs from several programs.

## Course Requirements

### Madonna University:

#### Chemistry

CHM 1110 General Chemistry I  
CHM 1120 General Chemistry II  
CHM 2210, 2220 Organic Chemistry I, II (1)

#### Mathematics

MTH 2510, 2520 Calc with Anal. Geom. I, II  
MTH 3510 Calc with Anal. Geom. III  
MTH 4530 Differential Equations (4)  
MTH 2470 or 2480 Programming  
Fortran or C (5)  
MTH 2350 Probability & Statistics  
MTH 3410 Linear Algebra (4)

#### Physics

PHY 2530, 2540 General Physics I, II (2)  
PHY 3510 Modern Physics (3)

#### Humanities and Social Science

PHL 1550 Inquiry into Values - Survey of  
Western/Eastern  
RST 1450 or 1460 Religions

#### Others

ENG 1010 Communication Skills I  
ENG 1020 Communication Skills II  
ENG 2000 Technical Writing  
SPH 1050 Speech Communications

- (1) Required of Chemical/Plastics Engineering Majors.
- (2) Competence in Calculus based on Physics must be demonstrated.
- (3) Required of Electrical Engineering Majors only.
- (3) Fulfills the MTH 372 Diff. Equations with Linear Algebra requirements.
- (4) Programming: C preferred.
- (5) For specific consortium information about engineering programs at the University of Detroit Mercy, contact the Assistant Dean (313/993-3362).

## Course Requirements

### University of Detroit Mercy (6):

#### Chemistry

CHM 107, 110 General Chemistry I  
CHM 108, 111 General Chemistry II  
CHM 227, 228, 229 Organic Chemistry

#### Mathematics

MTH 141, 142 Anal. Geom & Cal I, II  
MTH 241 Anal. Geom & Cal III  
MTH 371 Differential Equations  
E 103 Computer Science  
MTH 427 Appl to Probability & Statistics  
MTH 402 Linear Algebra

#### Physics

PHY 160, 1, 2, 3 General Physics I, II  
PHY 354, 5 Intro to Modern Physics

#### Humanities and Social Science

PHL 100 Values: An Intro to Philosophy  
RS 100 Intro to Religion

#### Others

ENG 101 Elective  
ENL 131 Academic Writing  
ENL 303 Technical Writing  
CST 101 Fundamentals of Speech



## For Admissions Information

Office of Admissions  
Madonna University  
36600 Schoolcraft Rd.  
Livonia, MI 48150-1173  
734/432-5339  
Fax 734/432-5393  
800-852-4951  
TTY 734/432-5643  
web: [www.madonna.edu](http://www.madonna.edu)  
e-mail: [muinfo@madonna.edu](mailto:muinfo@madonna.edu)

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## For Program Information

Dr. Stanley Ngeyi, Chair  
Physical & Applied Sciences  
Madonna University  
36600 Schoolcraft Rd.  
Livonia, MI 48150-1173  
734/432-5513  
Fax 734/432-5393  
800-852-4951  
TTY 734/432-5643  
web: [www.madonna.edu](http://www.madonna.edu)  
e-mail: [sngeyi@madonna.edu](mailto:sngeyi@madonna.edu)

## Career Options

- Studies in Engineering
- Computer Studies
- Work in industry

## Where our Grads are Found

- In engineering schools such as University of Michigan - Ann Arbor, Michigan State University
- Working in industry such as Intel Corporation, Ford Motor Company

## The Faculty

Students pursuing a pre-engineering program at Madonna University are taught by qualified faculty in:

- Mathematics
- Computer
- Science

Each faculty involved has a terminal degree from an outstanding institution, is pursuing the same, or has at least a master's degree in their field of expertise. The faculty members have years of university teaching experience, and through their research, and/or conferences, keep abreast of new developments in their field.

Madonna University reserves the right to withdraw or modify information in this brochure.

See Advisor/Admissions Office for current information.

Madonna University guarantees the right to equal educational opportunity without discrimination because of race, religion, sex, national origin, age, or disabilities.