Pathways to Achievement, Completion, Career & Transfer

ACADEMIC MAP 2018-2019

15 to FINISH
MIDDLESEX COMMUNITY COLLEGE

718

Engineering Technology – Precision Machining
Certificate

START *here*

1

SEMESTER 1 – *FALL*	CREDITS	MILESTONE	COMPLETED
CAD 110 – Engineering Graphics I	3		☐
CAD 169 – Solid Modeling I	3		☐
CAP 103 – Computers for Technology	3		☐
ADM 101 – Introduction to Manufacturing	3		☐
TOTAL CREDITS	12		

2

SEMESTER 2 – *SPRING*	CREDITS	MILESTONE	COMPLETED
ADM 110 – Precision Machining I	6		☐
ADM 111 – Precision Machining II	6		☐
ENG 101 – English Composition I	3		☐
TOTAL CREDITS	15		

You've **FINISHED!**

Milestone Courses should be taken in the order shown. This will help you stay on track and graduate on time.

General Advising Notes

- First semester, all classes will be held on the Bedford campus, Monday – Thursday. Three classes will be offered from 5–7:45 p.m. and one class from 5–9 p.m. Second semester, the Precision Machining classes will be offered three evenings a week at Nashoba Valley Technical High School in Westford beginning January 7, 2019 and ending May 15, 2019. Classes will be run 4–9 p.m., Monday–Wednesday and on four, 8-hour Saturdays on the first Saturday of the month beginning in February. ENG 101, depending upon the student's schedule, may be taken in the day, online, or on Saturday.
- CAD 169 requires completion of EGR 101 or current enrollment in CAD 110.
- CAP 103 requires student has eligibility for MAT 080, Math Module 70 or 80. If student does not meet this eligibility, he/she may complete required math courses in the summer or fall and take CAP 103 in the subsequent semester.
- ADM 101 requires a student has eligibility for MAT 080, Math Module 80. If student does not meet this eligibility, he/she may complete the required math course in the summer or take it as a co-requisite with ADM 101
- Students who do not place into ENG 101 (English Composition) but place into ENG 092 (Reading, Writing and Reasoning) may take this six-credit course in the summer prior to enrollment or as an additional six credits during the first semester. Students who place into ENG 099 (Writing Skills Seminar) may take this three-credit course along with ENG 101 in the second semester for a total of six credits
- The college offers accelerated math and writing classes during the summer to help students meet entrance requirements for the fall.

Career and Transfer Outlook

Many employment opportunities are available in precision machining with a range of manufacturers, including those that serve the aeronautics, medical devices and robotics industries. Students are prepared for a variety of in-demand entry-level positions, such as Machine Operator, CNC Operator, Inspector, and Quality Technician. Success in these positions, combined with further education, can lead to higher level positions, such as Set-up Programmer, Machine Tool Mechanic, Mold Maker, Tool and Die Maker, and Cell Leader. The certificate is the first step on a career pathway that can lead to high paying mid- and upper-level machinist, engineering and management positions based upon completion of associate and bachelor degree programs.

To learn more, call us at **1-800-818-3434** or visit **www.middlesex.mass.edu**

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CAREER MAP

15 to FINISH
MIDDLESEX COMMUNITY COLLEGE

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Engineering Technology and Transfer

The **Engineering Technology and Transfer** programs at Middlesex Community College offer a clear pathway so you can meet your educational and career goals. There are multiple entrance, exit and continuation points along this pathway. Each program offers courses that prepare you for the next level of study, as well as for employment opportunities. Your job options grow with completion of each extra step, as does earning potential! **Program Outcome skill competencies** can be found on the individual program pages of the MCC Academic Catalog at **www.middlesex.mass.edu/catalog**.

ENGINEERING TECHNOLOGY: PRECISION MACHINING CERTIFICATE

Competencies: *Prepares students for employment in a variety of entry-level advanced manufacturing machining positions.*

Learn more about the competencies at www.middlesex.mass.edu/catalog

JOB OPTIONS

- CNC Machine Programmer
- CNC Tool Operator
- Quality Assurance/Control Inspector
- Manufacturing Production Technician

SALARY RANGE

$38,565-$48,204
($18.54 - $23.18 / hr)

ENGINEERING TECHNOLOGY: COMPUTER AIDED DESIGN CERTIFICATE

Competencies: *Prepares students for employment in a variety of architectural, mechanical and CAD drafting and designer positions.*

Learn more about the competencies at www.middlesex.mass.edu/catalog

JOB OPTIONS

- Architectural Drafter
- Civil CAD Drafter
- Millwork Drafter
- Staff Structural Detailer
- Electrical Drafter

SALARY RANGE

$30,540-$38,180
($14.68 - $18.36 / hr)

ENGINEERING TECHNOLOGY: COMPUTER AIDED DESIGN ASSOCIATE DEGREE

Competencies: *Prepares students for careers with emphasis on Mechanical Computer Aided Design (CAD) Drafting and Design, basic Electro/Mechanical and Printed Circuit Board layout and entry level Architectural CAD.*

Learn more about the competencies at www.middlesex.mass.edu/catalog

JOB OPTIONS

- Architectural and Civil Drafter
- Electrical and Electronics Drafter
- Mechanical Drafting Technician

SALARY RANGE

$37,811-$43,651
($18.18 - $21.00 / hr)

Pathways to Achievement, Completion, Career & Transfer

CAREER MAP

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ENGINEERING SCIENCE TRANSFER: MECHANICAL ENGINEERING A.S.

Competencies: *Prepares students for transfer to an engineering bachelor degree program and employment in a variety of technical positions.*

Learn more about the competencies at www.middlesex.mass.edu/catalog

JOB OPTIONS

Mechanical Technologist
Mechanical Engineering Technician
Electrometrical Engineering Technician
Industrial Engineering Technician
Robotics Technician

SALARY RANGE

$39,985-$40,985
($19.22 - $19.70/ hr)

ENGINEERING SCIENCE TRANSFER: CIVIL/ENVIRONMENTAL ENGINEERING A.S.

Competencies: *Prepares students for transfer to an engineering bachelor degree program and employment in a variety of positions.*

Learn more about the competencies at www.middlesex.mass.edu/catalog

JOB OPTIONS

Civil Engineering Technician
Surveying Technician
Construction and Building Inspector

SALARY RANGE

$41,130-$42,360
($19.77 - $20.37 / hr)

CAREER GROWTH

Job opportunities for those with a Bachelor's degree, depending upon the major, include: Mechanical Engineer, Materials Engineer, Industrial/Manufacturing Engineer, Civil Engineer, Construction Engineer, Transportation Engineer, City /Town Engineer.

Learn more about Advanced Manufacturing, CAD and Engineering jobs, salaries, required education, and employment outlook by visiting **http://www.bls.gov/ooh/** or **http://lmi2.detma.org/lmi/lmi_oes_a.asp#3.**

Average **starting salary** for students earning a **Bachelor's degree** is **$57,830-$68,000 ***

*Depending on the major

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