



## Engineering Technology – Computer Aided Design (CAD) Certificate

### START here

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SEMESTER 1 – FALL	CREDITS	MILESTONE	COMPLETED
CAD 110 – Engineering Graphics I	3		<input type="checkbox"/>
CAD 169 – Solid Modeling I	3		<input type="checkbox"/>
CAD 230 – Architectural CAD	3		<input type="checkbox"/>
CAD 270 Design for Manufacturing	3		<input type="checkbox"/>
<b>TOTAL CREDITS</b>	<b>12</b>		

2

SEMESTER 2 – SPRING	CREDITS	MILESTONE	COMPLETED
<b>New CAD 131 – Advanced Engineering Graphics</b>	<b>4</b>		<input type="checkbox"/>
CAD 180 – Solid Modeling II	3		<input type="checkbox"/>
CAD 220 – PCB/EM layout	3		<input type="checkbox"/>
CAD 205 – Geometric Dimensioning and tolerancing	3		<input type="checkbox"/>
<b>TOTAL CREDITS</b>	<b>13</b>		

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

### You've FINISHED!

### Helpful Hints

Students should work with the Office of Career Integrated Learning and their Academic Advisors as they select the electives in this program to ensure they align with the student's career goals.

### Certificate Programs

Certificate programs can serve as the basis for further higher education or professional studies. Certificate programs require students to complete specified coursework, mainly related to particular fields of employment.

While many students enroll in a certificate program in preparation for direct entry into employment, they often return to college, part time or full time, and apply the credits previously earned to an associate degree program.

### Career and Transfer Outlook

The certificate is a rigorous and accelerated program designed to prepare students in two semesters to enter the workforce. This certificate stacks into the associate's degree to provide more expertise in the field.

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



## 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](http://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](http://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](http://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](http://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)





## 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](http://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](http://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](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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