



Engineering Technology – Computer Aided Design (CAD) Certificate

START here

1

SEMESTER 1 – FALL	CREDITS	MILESTONE	COMPLETED
CAD 110 – Engineering Graphics I	3		<input type="checkbox"/>
CAD 169 – Solid Modeling I	3		<input type="checkbox"/>
CAP 101 – Computer Applications	3		<input type="checkbox"/>
Approved CAD Elective: CAD 205, CAD 227 –or– CAD 230	3		<input type="checkbox"/>
TOTAL CREDITS		12	

2

SEMESTER 2 – SPRING	CREDITS	MILESTONE	COMPLETED
CAD 130 – Engineering Graphics II	3		<input type="checkbox"/>
CAD 180 – Solid Modeling II	3		<input type="checkbox"/>
CAD Elective: CAD 205, 227, 230 –or– 270	3		<input type="checkbox"/>
Elective: CSC 101 –or– ITC 101 –or– NST 111	3		<input type="checkbox"/>
TOTAL CREDITS		12	

You've FINISHED!

**Milestone Courses**

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

Helpful Hints

- Student needs either two CAD electives or one CAD elective with one elective from CSC, ITC or NST.
- The program must be started in the fall semester. It is only offered on the Bedford campus during the day.
- Students who intend to finish within a year should enroll in CAD 110 – Engineering Graphics I, CAD 169 – Solid Modeling I and CAP 101 – Microcomputer Applications in the first semester. Students must work with a faculty advisor to determine the courses to take during the spring semester.

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

Graduates of the program work in various industries with departments in mechanical design or manufacturing. Some of the positions that MCC graduates have held are mechanical designer and mechanical engineering technician. Graduates of the certificate program may apply most or all of their credits toward an associate degree in Engineering Technology – CAD.

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.

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)





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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