



Engineering Technology - Computer Aided Design (CAD) Associate in Science

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"/>
ENG 101 – English Composition I	3		<input type="checkbox"/>
College level math course: Recommended MAT 120 or MAT 195	3/4		<input type="checkbox"/>
Gen Ed seminar: IDS FY experience, IDS 107 – Career Readiness for the real world and 1 additional IDS elective	3		<input type="checkbox"/>

TOTAL CREDITS 15/16

2

SEMESTER 2 – SPRING	CREDITS	MILESTONE	COMPLETED
New CAD 131 – Advanced Engineering Graphics	4		<input type="checkbox"/>
CAD 180 – Solid Modeling II	3		<input type="checkbox"/>
ENG 102 – English Composition II	3		<input type="checkbox"/>
CAD 230 – Architectural CAD I	3		<input type="checkbox"/>
CAD 270 – Design for Manufacturing	3		<input type="checkbox"/>

TOTAL CREDITS 16

3

SEMESTER 3 – FALL	CREDITS	MILESTONE	COMPLETED
CAD 225 – Solid Modeling III	3		<input type="checkbox"/>
CAD 220 PCB/EM layout	3		<input type="checkbox"/>
New CAD 231 – Architectural CAD II	3		<input type="checkbox"/>
CAD 232 – Initial internship or CAD 229 – ET/CAD Internship or Cad 228 Practicum in CAD technology	2/3		<input type="checkbox"/>
Humanities Elective – Recommended ETH 101 or ETH 104	3		<input type="checkbox"/>

TOTAL CREDITS 14/15

4

SEMESTER 4 – SPRING	CREDITS	MILESTONE	COMPLETED
Science elective	3		<input type="checkbox"/>
CAD 205 – Geometric Dimensioning and Tolerancing	3		<input type="checkbox"/>
CAD 221 – PCB/EM layout II (new)	3		<input type="checkbox"/>
CAD 233 – Continuing internship	1		<input type="checkbox"/>
Behavioral Science elective	3		<input type="checkbox"/>
Approved elective: EGR 101 Recommended	3/4		<input type="checkbox"/>

TOTAL CREDITS 15/16/17

You've FINISHED!



Milestone Courses

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



Make Your Summer Matter. Summer is a great time to take some elective courses and get ahead.

Helpful Hints

In this program students will participate in a Learn and Earn experience, through a paid internship. Students will integrate industry experience with their academic content through a faculty led internship class.

Career and Transfer Outlook

Starting from the first semester, students will work closely with faculty and OCIL staff to explore their chosen field through projects, workshops, and seminars. These sessions will encompass a wide range of topics, including the nature of careers in CAD, resume building, preparation for employment or internships, interview skills, collaborative work, and the development of career goals.

Graduates of the program are qualified to pursue careers in multiple Engineering technology CAD fields, such as civil, mechanical, and electrical. Graduates work in various industries with departments in mechanical design, printed circuit design, manufacturing, or architectural design.

Graduates from this program would be well-prepared to seamlessly transition into a variety of engineering disciplines, especially if they decided to take EGR 101 as an elective.

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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