



MIDDLESEX COMMUNITY COLLEGE STRATEGIES FOR SUCCESS ADVISING GUIDE: *CAD Technology*

The **CAD Technology Associate in Science Degree program** provides a solid foundation of CAD Technology with emphasis on Mechanical Computer Aided Design (CAD) Drafting and Design, basic Electro/Mechanical and Printed Circuit Board layout and minor instruction in Architectural CAD software using state-of-the-art software tools. Students create drawings in 2-D and 3-D, generate solid models and explore animation techniques, all skills sought in the fast-growing, high-salaried field of Computer Aided Design. CAD techniques using microcomputer software and systems, database, spreadsheet and word processing are interrelated. As a result, students gain versatility in various areas of CAD, in addition to technical proficiency.



This advising guide includes information that will help you to explore your academic and career interests and determine whether the **CAD Technology major** will support your long-term goals.



EXPLORE YOUR OPTIONS WITH ACADEMIC ADVISING

Throughout each semester, meet with your advisor so that he/she can guide you through a self-exploration process that will help you identify your academic and career interests.

Beginning of Semester:

- ___ Schedule an appointment to meet with your academic advisor during the first few weeks to discuss future plans and how a Business Administration Degree can help you achieve your goals.
- ___ Explore your personal interests by completing Focus2, an online career assessment tool: <https://www.middlesex.mass.edu/careerservices/focus2.aspx>

Mid-Semester:

- ___ Schedule an appointment with academic advisor review your academic progress, Focus2 results and create an academic plan in Degree Works.

Before Semester Ends:

- ___ Schedule an appointment to discuss and register for the classes you will take the following semester. (Early November for spring, Early April for fall and summer)
- ___ Visit the Academic Career & Transfer Center or call 1-800-818-3434 to schedule an appointment.

► INSIDE THIS GUIDE

- Exploring Your Options
- Personality Inventory
- Career Path
- Transfer Path

CAD TECHNOLOGY PROGRAM OUTCOMES

Graduates of the program are prepared to:

- Demonstrate proficiency in advanced CAD skills by: creating complex drawings using wireframe and solid modeling techniques; manipulating analytic and non-analytic surfaces; analyzing drawing data; and developing customizing techniques;
- Demonstrate proficiency in applying selected software packages used in the Mechanical- and Electronics-related industries for drawing 3D Models, and an understanding of schematics and PCBs drawing practices;
- Apply related academic skills (from Computer Applications, Mathematics, e.g.) to resolve drafting and design problems;
- Extrapolate information, data and specifications from technical resources and standards for application on drawings, projects and reports;
- Collaborate and cooperate in a team setting to enhance cognitive and social learning by sharing in a CAD engineering environment;
- Demonstrate an ability to apply knowledge of CAD Technology and Engineering Design to solve design problems

CONT. NEXT PAGE



IS THE CAD TECHNOLOGY MAJOR THE RIGHT FIT FOR ME?

Think about whether you have the following personality traits and abilities that CAD Technology majors should possess and feel comfortable with and ask yourself these questions:

■ **Face-to-Face Discussions**

How often do you have to have face-to-face discussions with individuals or teams in this job?

■ **Importance of Being Exact or Accurate**

How important is being very exact or highly accurate in performing this job?

■ **Spend Time Sitting**

How much does this job require sitting?

■ **Work within a Work Group or Team**

How important is it to work with others in a group or team in this job?

■ **Indoors, Environmentally Controlled**

How often does this job require working indoors in environmentally controlled conditions?

■ **Importance of Repeating Same Tasks**

How important is repeating the same physical activities (e.g., key entry) or mental activities (e.g., checking and changing drawing data) over and over, without stopping, to performing this job?

■ **Freedom to Make Decisions**

How much decision-making freedom, without supervision, does the job offer?

■ **Contact With Others**

How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?

■ **Growth**

Will I need to continue my education to grow professionally?



STRATEGIES FOR SUCCESS ADVISING GUIDE: *CAD Technology Major*



THE CAREER PATH

Graduates of the **CAD Technology** program are qualified to pursue jobs in several CAD career fields, especially mechanical design. Graduates work in various industries with departments in mechanical design, printed circuit design, manufacturing or architectural design. Some of the positions that MCC graduates have held are mechanical designer, mechanical engineering technician, and printed-circuit designer and architectural CAD drafters.

Many graduates of the CAD associate degree program have continued their studies toward a bachelor's degree in engineering or engineering technology. CAD Technology students can transfer several required CAD courses to some engineering programs at four-year colleges. You may want to explore the transfer option with colleges that you would consider.

Career Planning Activities:

- Work with career advisor to create resume, cover letter and help improve your interview skills
- Identify internship and volunteer opportunities in your desired field
- Attend career workshops and job fairs



THE TRANSFER PATH

Some CAD Technology majors that may want to consider continuing onto an engineering bachelor degree program should consider enrolling in higher level math and science courses. Many CAD courses are transferable to some engineering programs at four-year colleges.

Transfer Planning Activities:

- Work with an advisor to discuss *MassTransfer*, Articulations and transfer agreements
- Visit your selected campuses in person. Every college looks good online or in a glossy photo, but you can get a better feel when you visit
- Meet with transfer counselor to identify transfer scholarships
- Research admissions requirements and deadlines at four-year colleges and universities

MCC ADVISING RESOURCES

Career Services:

<https://www.middlesex.mass.edu/careerservices>

Transfer Services:

<https://www.middlesex.mass.edu/transfer>

MassTransfer:

<https://www.middlesex.mass.edu/transfer/masstransfer.aspx>

Financial Aid:

<https://www.middlesex.mass.edu/financialaid>

Foundation Scholarships:

<https://www.middlesex.mass.edu/foundation/scholarships>

College Board Match Maker:

<https://bigfuture.collegeboard.org/college-search>

You can find more information about careers and salaries at: www.bls.gov.