

# ARCHITECTURAL COMPUTER AIDED DESIGN CERTIFICATE (CAREER)

Program website (<https://www.frederick.edu/programs/information-technology.aspx>)

**Program Manager:** Construction & Applied Technologies Institute (CATI)  
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## Program Description

Provides students with the knowledge and skills required for success in a career as an architectural CAD drafter, designer, operator, or technician.

## Program Learning Outcomes

- Create two-dimensional production and architectural drawings using basic AutoCAD commands. Print/plot to scale using model and layout space. Use layers to organize and separate information.
- Create pictorial views and three dimensional drawings. Create multiview drawings from three dimensional models.
- Describe and recognize the basic features and uses of additional CAD software systems, including AutoDesk Architecture, Revit, Civil 3D, and Micro station.
- Create architectural sketches, drawings, and models.
- Prepare house plans in AutoCAD and plot drawings in paper space.
- Describe the basic properties and uses of materials used in the construction process and evaluate appropriate methods of installation of construction materials. Illustrate the testing methods used to evaluate the performance and installation of construction materials.
- Create and revise civil drawings.
- Demonstrate proficiency in selected elective areas of CAD and construction.

## Program Requirements

Code	Title	Credits
<b>Departmental Requirements</b>		
CADT 101	AutoCAD I	3
CADT 102	AutoCAD II	3
CADT 110 or CADT 130	Introduction to SolidWorks Revit (BIM)	3
CADT 150	Architectural Drawing and Design	3
CADT 210	Residential Architecture I	4
CADT 220	Residential Architecture II	4
Total Credits		20

## Transfer Note

For more information on careers and transfer, contact the Career and Academic Planning Services office at 301.846.2471 or visit Transfer Services (<https://www.frederick.edu/student-resources/counseling-advising/transfer-services.aspx>).

## Guided Pathway to Success (GPS)

Suggested schedules map your path to degree completion.

Students should meet with an advisor each semester to carefully select and sequence courses based on their specific academic goals and interests. Visit Jefferson Hall or call 301.846.2471 for advising.

Recommended First Semester		Credits
CADT 101	AutoCAD I	3
CADT 102	AutoCAD II	3
Select one of the following:		3
CADT 130	Revit (BIM)	
CADT 110	Introduction to SolidWorks	
Credits		9
Recommended Second Semester		Credits
CADT 150	Architectural Drawing and Design	3
CADT 210	Residential Architecture I	4
CADT 220	Residential Architecture II	4
Credits		11
Total Credits		20

## Part-time Students

Part-time students should complete courses in the order listed on the pathway. Please contact program manager for questions about part-time status.

Students who take fewer than 15 credits each semester or who require developmental English or Math coursework will need additional semesters to complete their degrees. Summer term and January session classes may help students to make faster progress.

## Pathway Legend

Milestone - courses with the Milestone notation should be taken within the recommend credit range to stay on track for program completion.

Fall, Spring, Summer - courses with a Fall, Spring, or Summer notation indicate the course is offered in the specified semester only.