

COMPUTER AIDED DESIGN AND DRAFTING (CADD) (AAS)

Award: Associate of Applied Science Degree

No. of credits required: 60

For more information: Contact Business & Applied Technology at bat@harford.edu; or Admissions, 443-412-2109.

Program Description

This program provides students with a sound knowledge of Computer Aided Design and Drafting (CADD) through familiarization with the computer, peripheral devices and specialized software. The program prepares students to function as skilled CADD professionals who assist engineers and architects in all design and drawing preparation phases.

Program Goals

Upon successful completion of the CADD program students will be able to:

1. Create and revise CADD drawings.
2. Choose appropriate tools and techniques to produce effective and well organized CADD drawings.
3. Use industry terminology and standards.
4. Identify opportunities to improve productivity and accuracy and construct appropriate solutions.

Employment Information

CADD has generally replaced conventional drafting practices, with the number of CADD positions steadily increasing. Employment opportunities will continue to grow. Designers, architects, drafters, engineering technicians, and engineers will be required to operate CADD systems effectively and proficiently in order to be functional in their respective or prospective positions.

According to the *Occupational Outlook Handbook*, employment is expected to be approximately 193,800 by 2029.

Diversity Requirement

To satisfy the diversity requirement: Associate degree students must complete one 3-credit diversity course (D). It is recommended that students select one of the 3-credit (GB), (GAH), (GI) course electives from those that also appear on the approved list of diversity course graduation requirements.

Degree Requirements

Recommended Course Sequence

| First Semester | | Credits |
|-----------------|---|-----------|
| CADD 101 | Introduction to CADD | 3 |
| CIS 102 | Introduction to Information Sciences (GI) | 3 |
| ENG 101 | English Composition (GE) | 3 |
| ENGT 101 | Introduction to Engineering Technology | 3 |
| MATH 101 | College Algebra (GM) | 3 |
| Credits | | 15 |
| Second Semester | | |
| CADD 102 | Intermediate CADD | 3 |

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|---|--------------------------|-----------|
| CMST 101 | Speech Fundamentals (GI) | 3 |
| MATH 103 | Trigonometry (GM) | 3 |
| Behavioral/Social Science Elective (GB) (https://catalog.harford.edu/general-education/#behavioral-social-science) | | 3 |
| Career Based Elective ¹ | | 3 |
| Physical Education Elective | | 1 |
| Credits | | 16 |

| Third Semester | | |
|---|---------------------|-----------|
| ENG 209 | Technical Writing | 3 |
| CADD 252 | Customizing AutoCAD | 3 |
| CADD Elective (p. 1) ^{2,3} | | 3 |
| Behavioral/Social Science Elective (GB) (https://catalog.harford.edu/general-education/#behavioral-social-science) | | 3 |
| Biological/Physical Lab Science Elective (GL) (https://catalog.harford.edu/general-education/#biological-physical-laboratory-science) | | 4 |
| Credits | | 16 |

| Fourth Semester | | |
|--------------------------------------|--|-----------|
| Arts/Humanities Elective (GAH) | | 3 |
| CADD Electives (p. 1) ^{2,3} | | 9 |
| Physical Education Elective | | 1 |
| Credits | | 13 |
| Total Credits | | 60 |

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Choose from any BA, ACCT, CIS, CSI, ENGT or ELEC.

2

Students should consult the CADD Electives course listing to the left.

3

Certain CIS classes can be used as CADD electives. Recommended courses include CIS 111 Programming I: C/C++, CIS 118 Introduction to Microsoft Access, CIS 135 Introduction to Networks, CIS 145 Introduction to Microsoft Excel, CIS 205 Introduction to Visual Basic.NET Programming, CIS 207 Advanced Visual Basic.NET Programming, and CIS 221 Programming II: C/C++.

Students should contact Advising, Career and Transfer services for permission to register for Cooperative Education courses, 443-412-2301.

CADD Electives

Choose four courses

| Code | Title | Credits |
|----------|--|---------|
| CADD 131 | Revit 1 | 3 |
| CADD 222 | Geometric Dimensioning and Tolerancing | 3 |
| CADD 250 | Solid Modeling | 3 |
| CADD 260 | AutoLISP for AutoCAD | 3 |
| CADD 265 | Solidworks | 3 |
| CADD 273 | Cooperative Education III: Computer Aided Design and Drafting ¹ | 3 |

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General Education Degree Requirements

Note: The following codes identify courses which satisfy the General Education Degree Requirements:

Behavioral/Social Science (GB)

English Composition (GE)

Arts/Humanities (GAH)

Interdisciplinary and Emerging Issues (GI)

Biological/Physical Laboratory Science (GL)

Mathematics (GM)

Biological/Physical Science (GS)