

Computer-Assisted Design Technology

Computer-Assisted Design, or CAD, is a field that utilizes specialized computer software to graphically communicate (or “draft”) ideas into technically precise drawings. CAD drafting is used in the design and documentation process by architects, engineering and construction professionals. Additionally, the software is used to create the three-dimensional images used in animation and rendering. In this program, students master the CAD software packages used most commonly in design, documentation and presentation, with an emphasis on the architecture, design and building construction fields.

The curriculum is designed to help students develop strong marketable skills. Students acquire excellent computer graphic skills as well as the technical background that allows for accurate, informed decisions. Students become versatile draftspeople who have diverse job opportunities. Graduates are prepared to enter the professional and technical services as drafters and technicians, primarily in architecture, engineering, and construction, or in architectural animation. Drafters translate ideas, sketches and technical information into complete, accurate drawings needed to make buildings, structures, or products. Technicians assist design, construction, or art professionals to create renderings and animations or other three-dimensional simulations. They also can create the computer drawings and data required for the execution of creative ideas in a wide range of disciplines, such as film and industrial design. Graduates may also become CAD software support specialists, customizing software for specific companies or providing technical support to the computer users.

PROGRAM ENTRY REQUIREMENTS:

The program is open to all interested students, assuming space is available. Students selecting this curriculum will be assigned a faculty mentor who will guide them throughout their course of study.

Students are required to take the College’s placement tests at the time of entry. Students identified as needing developmental course work must satisfactorily complete the appropriate English and mathematics courses in addition to the requirements of their degree program.

PROGRAM OF STUDY AND GRADUATION REQUIREMENTS:

To qualify for the A. A. S. degree in Computer-Assisted Design Technology, a student must complete a minimum of 65 credits as prescribed and attain a minimum grade point average of 2.0 (“C” average).

(continued on next page)

Recommended Course Sequence	Course Number and Name	Prerequisite or Corequisite	Credits
Program Core Courses - Computer-Assisted Design Technology			
1	ADC 101 - Introduction to Design and Construction		3
2	ADC 103 - CAD Basics		4
3	ADC 109 - Design Studio I		3
6	ADC 112 - Construction Materials and Detailing		3
7	ADC 159 - Design Studio II	ADC 103, ADC 109	4
8	ADC 163 - Digital Documentation in Architecture and Construction	ADC 103	3
11	ADC 160 - Presentation Techniques	ADC 109	3
13	ADC 263 - Digital Animation and Rendering	ADC 103 or ART 150	3
16	ADC 260 - Advanced Presentation Techniques	ADC 159 or ADC 163, which may be taken concurrently	3
19	ADC 273 - Advanced CAD Applications	ADC 163	3
Directed Electives¹ (Select four of the following)			
9, 12, 14, 18	ADC 136 - Building Codes	ENGL 101 which may be taken concurrently	3
	ADC 186 - Surveying	ADC 101	3
	ADC 212 - Materials and Detailing: Interiors and Enclosures	ADC 101	3
	ADC 226 - Structures I - Analysis	ADC 101 and MATH 118 or higher	3
	ADC 227 - Structures II - Design	ADC 226	3
	ADC 246 - Contracts and Specifications	ADC 101	3
	ADC 253 - Environmental Control Systems	ADC 101	3
	ADC 254 - Advanced Topics in Environmental Systems	ADC 253	3
	ADC 286 - Building Rehabilitation and Redevelopment	ADC 101	3
	CIS 104 - PC Operating Systems: Windows		3
General Education Courses (See page 36 for information on disciplines which meet these requirements.)			
4	MATH 137 - Geometry for Design ² or higher level mathematics course	MATH 118 placement	3/4
5	ENGL 101 - English Composition		3
10	ENGL 102 - English Composition II ² or ENGL 112 - Report and Technical Writing ²	ENGL 101	3
15	Social Science Elective ³		3
17	Science Elective ²		3/4
20	Humanities Elective ³		3
21	Social Science Elective ³		3

Total to Graduate: 65 credits minimum

¹Selection of Directed Electives will be made in consultation with departmental advisors.

²Transfer institutions vary on the courses accepted for transfer. Consult with departmental advisors or the specific schools to determine choice.

³One of these courses must fulfill the American Diversity requirement.

For more information, contact:

The Division of Liberal Studies, Room BR-21, 1700 Spring Garden Street, Philadelphia, PA 19130, Telephone: 215-751-8771, or the College Information Center, 215-751-8010