

Careers

Careers using construction and architectural technology may include draftsperson and architectural rendering (with manual and computer drafting skills), construction estimating and scheduling, construction specification writing, construction management, and inspection.

Drafters prepare technical drawings and plans used by production and construction workers to build structures. Drafters fill in technical details, using drawings, rough sketches, specifications, codes, and calculations made previously by engineers and architects. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Construction managers plan and coordinate construction projects. Although they usually play no direct role in the actual construction of a structure, they typically schedule and coordinate all design and construction processes, including selecting, hiring, and overseeing specialty trade contractors.

Cost estimators develop the cost information that business owners need to make a bid for a contract or to determine if a proposed new product will be profitable. They use computers for complex mathematical calculations and produce documentation.

Salary

In 2004, median annual earnings of architectural and civil drafters were \$39,190; of construction managers were \$69,870; and of cost estimators were \$49,940.

Job Outlook

Individuals who enter construction careers with a college degree usually start as management trainees or construction managers' assistants. Generally, jobs in the construction industry are expected to grow slowly through 2014.

Education & Training Options

In the construction industry, executive, administrative, and managerial personnel usually have a college degree or considerable experience. Montgomery College offers an associate of applied science degree (A.A.S.) in architecture and construction technology and two certificate programs. (See reverse for *architectural and construction technology curricula*.)

■ Degree

Two A.A.S. options are offered: (1) architectural technology and (2) management of construction. Both prepare graduates for entry into paraprofessional positions in the construction industry and architecture. Graduates may continue their education toward professional degrees or seek employment immediately.

■ Certificate

Two certificates are offered: (1) CAD for the building professional and (2) management of construction. The CAD certificate prepares students for entry-level positions in architectural or construction firms, providing training in computer-aided drafting (CAD) skills and building technology concepts. Management of construction courses prepare students to organize, operate, manage, and control systems, procedures, and services in the construction industry, both on the job site and in the contractor's office.

Contact @ MC

Rockville Campus

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www.montgomerycollege.edu/Departments/arch

Architectural and Construction Technology Curricula

Degrees, Certificates, and Letters of Recognition

Montgomery College is authorized by the Maryland Higher Education Commission (MHEC) to offer four degrees (associate of arts, associate of science, associate of applied science, and associate of arts in teaching) and certificates. In addition, the College recognizes students who satisfactorily complete certain course sequences with letters of recognition.

Some curricula are offered at all campuses, whereas others are limited to one or two. When a curriculum is offered at a specific campus, it is indicated by G for Germantown, R for Rockville, or TP for Takoma Park/Silver Spring.

Admission to Montgomery College is open to all.

Math, English, and reading assessment tests are required prior to registering. (Some students may be exempt from assessment. Consult the *Montgomery College Catalog* for criteria.) Financial aid and scholarships are available to qualified candidates.

Take the next step.

Complete an Application for Admission form (online @ www.montgomerycollege.edu/admissions/mcadmiss.htm) or call 240-567-5000 for information.

First Semester

CT 130	Construction Methods and Materials	3
CT 170	Introduction to Architecture and the Built Environment	3
CT 181	Architectural Drafting Techniques	3
	English foundation	3
	Mathematics foundation	3

Second Semester

CT 142	Introduction to Architectural Graphics	3
CT 183	Computer Drafting: Architectural Applications	4
CT 212	Construction Management	
or		
	Professional elective*	3
	Speech foundation	3
	Behavioral and social sciences distribution	3

Third Semester

AR 209	History of Architecture I	
or		
	Arts or humanities distribution	3
CT 201	Introduction to Architectural Design	4
CT 223	Computer Drafting: Architectural 3D Presentation	4
CT 284	Construction Estimating	
or		
	Professional elective*	3
	Health foundation	1

Fourth Semester

AR 210	History of Architecture II	
or		
	Professional elective*	3
CT 224	Computer Drafting: Advanced Architectural Applications	4
CT 291	Building Codes and Inspection	
or		
	Professional elective*	3
CT 299	Professional Practicum	1
PH 203	General Physics I	
or		
	Natural sciences lab distribution	4

Total credit hours 61

* Professional electives: AR 101, AR 103, AR 209, AR 210, CA 120, CT 200 (3 credits), CT 283, CT 288.

Architectural and Construction Technology Curricula

(continued)

First Semester

CT 130	Construction Methods and Materials	3
CT 131	Construction Plan Reading	3
CT 135	Construction Field Operations	3
EN 101	Techniques of Reading and Writing I	3
	Mathematics foundation	3

Second Semester

CT 190	Computer Applications in Construction	3
CT 212	Construction Management English foundation	3
	Speech foundation	3
	Arts or humanities distribution	3

Third Semester

CT 271	Construction Surveying	3
CT 283	Mechanical and Electrical Systems	3
CT 284	Construction Estimating Professional elective*	3
	Behavioral and social sciences distribution	3

Fourth Semester

CT 286	Construction Planning and Scheduling	3
CT 288	Practical Construction Law	3
CT 299	Professional Practicum Professional elective*	1
	Health foundation	1(3)
	Natural sciences lab distribution	4

Total credit hours 60 (62)

* Professional electives: AC 201, BU electives, CT 170, CT 181, CT 183, CT 200 (1 credit), CT 291, CT 299 (1 credit), MA 180, MG 102.

CAD for the Building Professional Certificate (R): 203

CT 130	Construction Methods and Materials	3
CT 181	Architectural Drafting Techniques	3
CT 183	Computer Drafting: Architectural Applications	4
CT 223	Computer Drafting: Architectural 3D Presentation	4
CT 224	Computer Drafting: Advanced Architectural Applications	4
	English foundation	3
	Mathematics foundation	3

Total credit hours 24

Management of Construction Certificate (R): 142

CT 130	Construction Methods and Materials	3
CT 131	Construction Plan Reading	3
CT 135	Construction Field Operations	3
CT 190	Computer Applications in Construction	3
CT 212	Construction Management	3
CT 284	Construction Estimating	3
CT 286	Construction Planning and Scheduling	3
CT 288	Practical Construction Law	3
EN 101	Techniques of Reading and Writing I	3
	Professional electives*	6 (8)

Total credit hours 33 (35)

* Professional electives: AC 201, BU electives, CE 260, CT 170, CT 181, CT 183, CT 200, CT 271, CT 283, CT 291, CT 299, MA 180, MG 102.