

*Training for this online enhanced certificate is focused in three disciplines.*

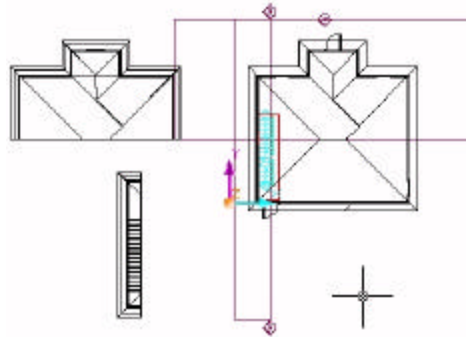
## THREE DISCIPLINES:

**1. Architectural** – Training for those interested in creating technical drawings for or related to buildings, interior design, and landscape design. Architectural professionals are employed in architectural firms, in companies that produce equipment, furnishings, or exhibits. They may also work in facilities management. They may work in the entertainment industry creating drawings for set design, 3D models, or move into 3D animation.

**2. Civil Engineering** – Training for those interested in creating technical drawings for roads, bridges, land use, or surveying. Civil Engineering professionals are employed by companies that create drawings for large scale structures. Many work in public agencies or for large utility companies.

**3. Construction** - Training for those who need to read technical drawings, or create or modify them for use in construction. Construction companies build residential, commercial and institutional projects. A trained drafter may be hired to work on drawings, to manage and supervise others, create cost estimates based on drawings or may need to be able to read drawings to work with clients.

Additionally, some drafters may be self-employed as designer/drafters who offer their services on a consultant basis



### Career information links for AEC:

- <http://www.aeccafe.com/>
- <http://stats.bls.gov/ocohome>
- <http://www.aecjobbank.com/>
- <http://www.calltoserve.org>

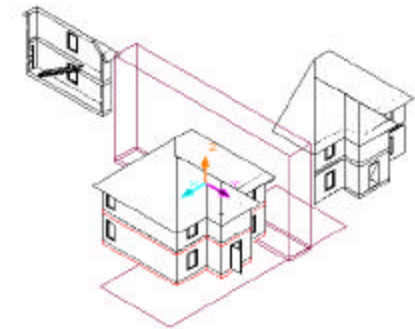


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## ARCHITECTURAL/ CIVIL ENGINEERING/ CONSTRUCTION/ DRAFTING AND DESIGN

SANTA ANA COLLEGE  
ENGINEERING  
DEPARTMENT

## For AEC Career Training



# AEC DRAFTER CERTIFICATE PROGRAM

This option is designed specifically to prepare the student for employment as a drafter/designer in the Architectural, Civil Engineering and Constructions (AEC) fields. The drafter/designer works closely with the architect, developer and other professionals in the development and construction of AEC projects.

This program provides training in the reading, creation, and modification of architectural, civil engineering, and construction industry related drawings.

There are no prerequisites for courses in this program although there are recommendations. Engineering 149 is the best course to take first. It would be wise for anyone interested in this training to begin with basic CAD courses of Engineering 183 and 184 at SAC or have training equivalent to Engineering 183 and 184.

The certificate program emphasizes proper use of standards, techniques that are used to create AEC technical drawings and the use of CAD for creation of drawings.

## DEGREE PROGRAM:

Students may also earn an associate degree in this program by satisfying additional course requirements.

## THE PROGRAM

**Required Courses**  
**Engineering 142, AEC Drafting**  
**Standards – 4 Units**

**Engineering 149, Introduction to**  
**Architecture/Civil**  
**Engineering/Construction**  
**2 Units**

**Engineering 154,**  
**Architecture/Engineering/**  
**Construction AutoCAD Drafting**  
**3 Units**

**Engineering 183, AutoCAD I -**  
**Computer Aided Drafting**  
**3 Units**

**Engineering 184, AutoCAD II**  
**Computer Aided Drafting**  
**3 Units**

**Engineering 186, AutoCAD 3**  
**Dimensional Drawing**  
**3 Units**

**Engineering 201 Architectural Practice**  
**4 Units**

**Engineering 112**

**Society and the Built Environment**  
**3 Units**

**Total Units= 22**

## OTHER ENGINEERING OPTIONS AT SAC

Engineering Drafting and Design  
Degree (0254) and Certificate (0798).

Engineering Industrial Technology  
Degree (0260) and Certificate (0896).

Engineering Civil Technology  
Degree (0258) and Certificate (0794)

Program Catalog Descriptions  
<http://www.sac.edu/schedule/>

### **Department website:**

[http://ext.sac.edu/academic\\_progs/  
engineering/](http://ext.sac.edu/academic_progs/engineering/)

**Program Descriptions (Department**  
**Brochure) brochure.pdf**  
[http://ext.sac.edu/academic\\_progs/  
engineering/brochure.pdf](http://ext.sac.edu/academic_progs/engineering/brochure.pdf)

## AT FEES YOU CAN AFFORD

The community college courses are an affordable way to gain the training you need to advance or launch your career in AEC.

**Enroll today or Call**

**714-564-6787**

**for information**