

# CONSTRUCTION MANAGEMENT and ARCHITECTURE

## PROGRAM

- Associate of Science (A.S.)



**HARTNELL  
COLLEGE**

### DESCRIPTION

The Associate of Science Degree in Construction Management and Architecture provides a comprehensive introduction to the construction management profession and professional architectural studies. Students select an Associate of Science Degree emphasis in either Construction Management or Architecture, which share interdisciplinary core courses. Licensed professionals instruct students in principles of sustainability, fundamental construction field skills and methods, construction management principles, and architectural design theory. Under practical field and professional studio conditions, students apply current leading industry construction techniques, and computer-aided design and management technologies.

#### **Construction Management Emphasis:**

The Construction Management emphasis provides the basic practical construction skills and advanced technical knowledge necessary to enter directly into a professional construction management career. Licensed contractors instruct students in lecture, field practice, and studio settings.

#### **Architecture Emphasis:**

The Architecture emphasis provides a basic practical knowledge of field construction skills and practices, sustainable building design principles, together with the basic visual communication skills and digital computer drawing skills necessary for entry-level architectural drafting employment and first-year architectural design transfer credits for a university architectural program.

### **LEADS TO CAREER OPPORTUNITIES SUCH AS:**

- Auditor
- Certification Manager
- Commissioner
- Construction Manager
- Green Building Designer
- Inspector
- Sustainable Building Designer

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare for transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with a Hartnell College counselor to develop a student education plan before beginning their program.

### TRANSFER RESOURCES

www.ASSIST.org – CSU and UC Articulation Agreements and Major Search Engine

CSU System Information - <http://www2.calstate.edu>

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Hartnell College offers a full array of financial aid programs, federal loan programs, and fee waivers.

<https://www.hartnell.edu/students/fa/net-price-calculator.html>

# CONSTRUCTION MANAGEMENT and ARCHITECTURE (AS.CMA)

## ASSOCIATE OF SCIENCE

**Program Outcomes:** Upon successful completion of this program a student will be able to:

**Construction Management Emphasis:**

- identify and select alternate construction education pathways and construction career opportunities.
- apply basic levels of knowledge and experience in construction craft skills and commercial business operations necessary to effectively manage small commercial and residential construction project activities.
- analyze and apply standard construction contract terms, conditions, plans, specifications, costing formats, and basic regulatory requirements applicable to a range of construction activities.
- apply basic construction management methods to monitor and control compliance with contract requirements for price, time schedule, specifications, and safety on small projects.

**Architecture Emphasis:**

- identify and select alternate architectural education pathways and architectural career opportunities.
- apply basic principles of commercial and residential construction materials and methods to architectural design.
- apply basic architectural design principles to generate an architectural design solution to a specific set of constraints.
- describe and apply sustainable environmental design principles to architectural design solutions.
- apply manual and digital techniques to produce drawings and three-dimensional models documenting architectural and engineering designs.

**Required Major Courses (20 units)**

<input type="checkbox"/> CMA-51 – Introduction to Construction Management and Architecture	3.0
<input type="checkbox"/> CMA-55 – Introduction to Structural Design and Codes	3.0
<input type="checkbox"/> CMA-57 – Construction Law and Contracts	3.0
<input type="checkbox"/> CMA-61 – Construction Field Practice: Layout, Foundations & Framing	4.0
<input type="checkbox"/> CMA-62 – Construction Field Practice: Exterior and Interior Finish	4.0
<input type="checkbox"/> CMA-81 – Computer Aided Drafting and Design I	3.0

**Required Major Courses (Complete one emphasis 15 units)**

<input type="checkbox"/> <b>CONSTRUCTION MANAGEMENT</b> – CMA-52, 53, 54, 56, 91	15.0
<input type="checkbox"/> <b>ARCHITECTURE</b> – CMA-70, 71, 72, 82, 83	15.0

**Major Elective Courses (Complete 3 units from the same emphasis as above)**

<input type="checkbox"/> <b>CONSTRUCTION MANAGEMENT</b> – CMA-63, 64, 65, 66, 84, 90, EGN-11	3.0
<input type="checkbox"/> <b>ARCHITECTURE</b> – CMA-53, 84, 90, 91, EGN-11	3.0

**SUBTOTAL: 38 UNITS**

**General Education – Required Courses**

*Students must complete one of the following General Education Plans:*

**HCCD GE (see page 68) MAT-123 or higher**

- Natural Sciences    Social & Behavioral Sciences    Humanities  
 Ethnic Groups in the US    Language and Rationality

**SUBTOTAL: 21 UNITS**

*Students can double-count required courses and courses for General Education*

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**