

# CONSTRUCTION

## BUILDING/CONSTRUCTION SITE MANAGEMENT

### Phone:

970.339.6413

### Department Chair, Engineering:

John Mangin, 970.339.6413

### Advisors and Faculty:

John Lenz, 970.339.6626

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### DEGREES/CERTIFICATES OFFERED:

**Building Construction Site Management**  
(two-year A.A.S. Degree)

#### Certificates:

- Basics of Construction Management
- Basics of Construction Methods
- Basic Structural Properties
- Green and Sustainable Building
- Project Estimating

**NOTE: Students seeking to transfer to a four-year institution should see an advisor for current transfer information and possibilities.**

**Program Length:** Usually four semesters for the A.A.S. Degree and usually two semesters for a certificate.

**Potential Opportunities:** This is the first of its kind two-year A.A.S. degree in construction management in the state of Colorado. This A.A.S. degree and certificates are designed to prepare the students for a wide range of technical occupations that utilize construction management skills and knowledge, including, yet not limited to: project management, general contracting, on-site superintendent, estimating, materials testing, owner or architect's representative, real estate development, technical sales, and financing. AAS degree graduates are prepared for the workplace, or may want to transfer to a four-year institution. Those students seeking transfer to a four-year institution should see an advisor for current transfer information and possibilities.

**Program Requirements:** (1) Students entering the program are required to complete the Aims assessment examinations in the areas of reading, writing, and mathematics. If qualifying scores are not attained, the program advisors will determine the preparatory courses that will be required to gain admittance to the program. (2) Students are required to demonstrate proficiency in English composition before graduation. This may be accomplished by successful completion ("C grade or above) in (ENG 121) English Composition, (ENG 131) Technical Writing, or by qualifying score on the assessment examination. (3) Prerequisite courses for this program must be met prior to admittance to the program. See the course descriptions in the back of the catalog for individual course

descriptions. (4) Any student registering for a construction management course must obtain a program advisor's signature on the course registration form before registering. Any student requesting an evaluation of transfer credit is required to meet with a construction management department advisor. (5) Any course used to satisfy a construction management technology degree or certificate must be completed with a "C" or better.

**General Information:** Most courses within the Construction Management Technology program require some degree of manual dexterity, good eyesight and the ability to perform manual operations such as the ability to lift and operate test equipment.

Specific courses may be suitable for the physically impaired students – contact a program advisor if you have questions or needs.

**Program Description:** The A.A.S. degree in Construction Management Technology consists of specific construction management courses and general education requirements. The student may elect to complete one or more of the certificates and/or the entire A.A.S. degree program of study.

## BUILDING/CONSTRUCTION SITE MANAGEMENT

(Associate of Applied Science Degree)  
(AAS CM13)

### GENERAL EDUCATION

COM 115 Public Speaking . . . . .	3
OR	
COM 125 Interpersonal Communication . . . . .	3
ENG 121 English Composition I . . . . .	3
OR	
ENG 131 Technical Writing I . . . . .	3
HIS 101 Select One:	
101, 102, 201, 202 or 247 . . . . .	3
MAT 108 Technical Mathematics . . . . .	4
OR	
MAT 121 College Algebra . . . . .	4
PHY 105 Physics: Conceptual Physics . . . . .	4
OR	
PHY 111 Physics: Algebra Based I . . . . .	5
<b>Total General Education Credits:</b> . . . . .	<b>17-18</b>

### REQUIRED COURSES

AEC 107 Blueprint Reading (Residential/Commercial) . . . . .	3
AEC 205 Applied Statics and Strengths of Materials . . . . .	3
AEC 221 Building Electrical/ Mechanical Systems . . . . .	3
AEC 226 Construction Scheduling . . . . .	3
AEC 231 Estimating II: Cost Analysis . . . . .	3
AEC 232 Construction Project Management . . . . .	3
AEC 233 Construction Safety and Loss Prevention . . . . .	2
AEC 234 Construction Contract and Labor Law . . . . .	2
AEC 236 International Building Codes . . . . .	3

CAD 101 Computer Aided Drafting I . . . . .	3
ENT 142 Surveying II . . . . .	4
ENT 146 Construction Materials and Methods . . . . .	3
ENT 210 Soil Mechanics . . . . .	2
ENT 215 Soils lab . . . . .	1
<b>Total Required Courses Credits:</b> . . . . .	<b>38</b>

### ELECTIVES

(Select with advisor approval 2 or more core elective credits from the following:

ACC 121 Accounting Principles I . . . . .	4
AEC 275 Special Topics . . . . .	1-6
AEC 280 Internship . . . . .	1-6
AEC 285 Capstone . . . . .	1-6
CAD 102 Computer Aided Drafting II . . . . .	3
CAD 224 Revit . . . . .	3
CIS 118 Intro to PC Applications . . . . .	3
ENT 207 Construction Methods, Planning and Equipment . . . . .	2
ENT 270 Technical Experience . . . . .	3
ENT 275 Special Topics . . . . .	0-5
ENY 153 Renewable Energy Construction . . . . .	4
ENY 205 Green & Sustainable Buildings . . . . .	4
GEY 111 Physical Geology . . . . .	4
MAN 216 Small Business Management . . . . .	3
<b>Total credits for A.A.S. Degree:</b> . . . . .	<b>60-63</b>

## BUILDING/CONSTRUCTION SITE MANAGEMENT

(Certificates)

### BASICS OF CONSTRUCTION METHODS CERTIFICATE

(CERT CM19)

ENT 146 Construction Materials and Methods . . . . .	3
ENT 207 Construction Methods, Planning and Equipment . . . . .	2
<b>Total Credits for Basics of Construction Methods Certificate</b> . . . . .	<b>5</b>

### BASIC STRUCTURAL PROPERTIES CERTIFICATE

(CERT CM11)

AEC 205 Applied Statics & Strengths of Materials . . . . .	3
MAT 108 Technical Mathematics . . . . .	4
<b>Total Credits for Basic Structural Properties Certificate</b> . . . . .	<b>7</b>

### PROJECT ESTIMATING CERTIFICATE

(CERT CM12)

AEC 107 Blueprint Reading (Residential/Commercial) . . . . .	3
AEC 231 Estimating II: Cost Analysis . . . . .	3
<b>Total credits for Project Estimating Certificate</b> . . . . .	<b>6</b>

### BASICS OF CONSTRUCTION MANAGEMENT CERTIFICATE

(CERT CM10)

AEC 232 Construction Project Management . . . . .	3
AEC 226 Construction Scheduling . . . . .	3
<b>Total credits for Basics of Construction Management Certificate</b> . . . . .	<b>6</b>

**Construction, cont.**

**GREEN/SUSTAINABLE BUILDING CERTIFICATE**

(CERT CM22)

ENY 153 Renewable Energy Construction . . . . 4

ENY 205 Green & Sustainable Buildings . . . . 4

**Total credits for Green/Sustainable Building Certificate . . . . . 8**

**BUILDING/CONSTRUCTION MANAGEMENT TRADES ADVISORY COMMITTEE**

- Mark Frazier  
UNI Design
- Mark Hout  
UNI Design, Greeley
- Chad Rock  
Alliance Construction
- Loren Shanks  
Drexel Barrell & Co
- Dotti Weber  
Home Builders Assn. of Northern Colorado, Windsor

**CONSTRUCTION TRADES PROGRAM**

**Program Chair:**  
John Mangin, 970.339.6413

**Advisors and Faculty:**  
Mickey Hatchell, 970.339.6191

(Certificates)

Aims Community College is developing a series of certificate programs to provide education and training in various aspects of Construction Trades. Two programs began on the Fort Lupton Campus in the Fall of 2006. Certificates include:

**CARPENTRY CERTIFICATE**

(CERT CT09)

- CAR 100 Introduction to Carpentry
- CAR 102 Hand and Power Tools
- CAR 105 Job Site Layout and Blueprint Reading
- CAR 115 Form and Foundation Systems
- CAR 125 Roofing Materials and Methods
- CAR 133 Construction Framing
- CAR 170 Clinical Construction Lab I
- CAR 130 Windows and Exterior Doors
- CAR 136 Remodeling, Renovation and Additions
- CAR 156 Shop Tools: Stationary, Hand and Portable
- CAR 160 Floor Finishes
- CAR 171 Clinical Construction Lab 2
- Total Credits for Certificate . . . . . 25**

**ELECTRICAL WIRING CERTIFICATE**

(CERT CT10)

- EIC 100 Electrical Construction and Planning
- EIC 104 Basics of Industrial Electricity
- EIC 105 Basics of AC and DC Electricity
- EIC 110 Electrical Installations
- EIC 124 Electrical Safety Requirements
- EIC 130 National Electrical Code I
- EIC 134 Life Safety Code
- EIC 135 National Electrical Code II
- EIC 144 Grounding and Bonding
- EIC 160 Electrical Instruments and Measurements
- Total Credits for Certificate . . . . . 29.5**

This is an open-entry instructional program meaning that students do not have to wait for a new semester to begin instruction. Each course consists of a series of learning modules designed to teach both construction trades theory and actual construction skills. Skills and theoretical knowledge are enhanced through the use of full-scale projects and the use of state-of-the-art construction tools and equipment with an emphasis on Safe Work Practices. A flexible instructional delivery systems allows students to become employable in the construction industry and to document the skills they have mastered. it also allows construction industry employers to use the Aims Community College construction technology program to upgrade the skills of their workforce.

Certificates such as Plumbing, Masonry, and Construction Technology Technician are being considered as additional future options. For more information call the Aims Community College Fort Lupton Campus at 303.857.4022, Ext. 6191

