

**Program Outcome**

Students who receive the Convergence Technologies Certificate of Specialization will be able to design and implement a small to medium network environment.

**Required Courses**

<b>Course</b>			<b>Units</b>
PC Concepts: A+Cert Prep	CIS	A110	(4)
Network & Comm Technologies	CIS	A191	(4)
Network Systems Admin	CIS	A192	(4)
<b>Select one (1) course from the following:</b>			
SQL Server Administration	CIS	A176	(4)
SQL Server Design & Implementation	CIS	A177	(4)
Network Infrastructure Admin	CIS	A193	(3)
Network Directory Services Admin	CIS	A194	(3)
Network Security Design	CIS	A196	(4)
<b>Total:</b>			<b>(15-16)</b>

**OFFICE APPLICATIONS**

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for office personnel positions using Microsoft Office applications. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

**Program Outcomes**

Students who receive the Office Applications Certificate of Specialization will be able to:

1. Use a computer operating system and computer applications for word processing, electronic spreadsheet creation, database management, multimedia presentations, and electronic personal management with competence.
2. Achieve personal development and responsibility for entering the job market.

**Required Courses**

<b>Course</b>			<b>Units</b>
Beginning Computer Keyboarding 1	CIS	A090	(1.5)
Beginning Computer Keyboarding 2	CIS	A092	(1.5)
Introduction to Computer Applications	CIS	A100	(3)
Excel 1	CIS/BUS	A134	(2)
<b>Total:</b>			<b>(8)</b>

**WEB DESIGN**

**Program Outcome**

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for entry-level positions in designing for the World Wide Web. A grade of "C" or better is required in all courses. As an added outcome, Web Design Certificate students will be able to create dynamic Web pages.

**Complete five (5) courses from this list (must be taken at Orange Coast College.)**

**Required Courses**

<b>Course</b>			<b>Units</b>
Intro to Web Page Design	CIS	A123	(2)
Intro to Dreamweaver	CIS	A128	(2)
Cascading Style Sheets/Web Pgs	CIS	A129	(2)
Bus Multimedia/Graphics	CIS	A132	(2)
Flash Programming	CIS	A141	(3)
JavaScript 1	CIS	A171	(2)
JavaScript 2	CIS	A223	(2)
<b>Total:</b>			<b>(10-11)</b>

**CONSTRUCTION TECHNOLOGY**

The Construction Technology program has courses that can be divided into two major areas of emphasis: Residential Trades and Construction Management. Due to the vast diversity of occupations and areas of specialization within the construction industry and recognizing that individual student needs will be as diverse, a Certificate of Achievement can be designed that satisfies those specific needs. Completion of a certificate program satisfies the major requirement for the Associate in Science degree. Certificates of Achievement and Specialization can be completed in one to two semesters.

**Program Outcome**

Upon successful completion of the Construction Specialist program, students will have the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades. Students successfully completing a comprehensive series of courses will be prepared to work in the construction field in positions including, but not limited to work areas such as inspection, management, and as hands-on skilled trades people.

**CONSTRUCTION TECHNOLOGY**

Construction Technology A165, Construction Safety/CAL-OSHA, is required for any first earned Certificate of Achievement. It is recommended that all beginning, full-time students enroll in the following courses leading to a Certificate of Achievement.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

<b>Course</b>			<b>Units</b>
Construction Safety/CAL-OSHA	CNST	A165	(3)
Building Construction	CNST	A180	(5)
Building Construction	CNST	A185	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Building Code & Law	CNST	A195	(3)
Specialty Crafts	CNST	A240	(5)
<b>Total:</b>			<b>(25)</b>

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**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

**RESIDENTIAL ELECTRICAL**

This certificate prepares students for entry level employment in residential electrical related trades. The student will be able to wire electrical systems, understand code requirements, and interpret electrical blueprints.

**CERTIFICATE OF SPECIALIZATION**

**Required Courses**

<b>Course</b>			<b>Units</b>
Construction Safety/CAL OSHA	CNST	A165	(3)
Blueprint Reading & Drafting	CNST	A190	(4)
Residential Electrical Wiring	CNST	A275	(5)
First Aid and CPR*	HLED	A112	(2)

**Total: (14)**

**Suggested electives:**

Electronics for Electrician's	CNST	A150	(4)
Photovoltaic System Installation	CNST	A157	(4)
Photovoltaic System Installation II	CNST	A158	(4)
Intro to Construction	CNST	A170	(3)
Supervision & Project Mgmt	CNST	A250	(3)
Tech Math	TECH	A040	(3)
Structured Wiring	CNST	A155	(2)
National Electrical Code	CNST	A156	(2)

\*EMT A100 may be substituted for HLED A112

**RESIDENTIAL CONSTRUCTION DEVELOPMENT**

Students may select any combination of courses that total eighteen (18) or more units from the following list. Note: Construction Technology A165, Construction Safety/CAL OSHA, is required for any first earned Certificate of Achievement.

**RESIDENTIAL CONSTRUCTION DEVELOPMENT SECOND AWARD**

**RESIDENTIAL CONSTRUCTION DEVELOPMENT THIRD AWARD**

Students may earn a second and third award of the certificate by completing eighteen (18) or more units from the following list, however, no course may be applied to more than one certificate.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

<b>Course</b>			<b>Units</b>
Cabinet Making	CNST	A114	(4)
Intro to Construction	CNST	A170	(3)
Building Construction	CNST	A180	(5)
Building Construction	CNST	A185	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Building Code & Law	CNST	A195	(3)
Concrete Construction	CNST	A210	(5)
Construction Estimating	CNST	A220	(3)
Land & Building Development	CNST	A225	(3)
Construction Inspection	CNST	A230	(3)
Contractor's Business Practice	CNST	A235	(3)
Supervision and Project Mgmt	CNST	A250	(3)
Business Law for Contractors	CNST	A252	(1.5)
Construction Finance	CNST	A255	(3)
Masonry Construction	CNST	A260	(3)
Plumbing 1	CNST	A265	(4)
Contractor's License Law	CNST	A270	(1.5)
Residential Electrical Wiring	CNST	A275	(5)
Res Lt Steel Frame Const	CNST	A285	(5)
Plumbing 2	CNST	A266	(4)
Drywall	CNST	A154	(2)

**Total: (18) Minimum**

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

**MASTER CONSTRUCTION SPECIALIST**

This certificate is given to students who complete a minimum of 54 semester units. The terms "Master" and "Specialist" imply a very broad knowledge in several of the construction trades and management disciplines. Students who complete this program will have their names displayed on a perpetual "Award of Excellence" listing in the Construction Department.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

<b>Course</b>			<b>Units</b>
Cabinet Making	CNST	A114	(4)
Construction Safety/CAL OSHA	CNST	A165	(3)
Building Construction	CNST	A180	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Concrete Construction	CNST	A210	(5)

Specialty Crafts	CNST	A240	(5)
Plumbing 1	CNST	A265	(4)
(Or)			
Plumbing 2	CNST	A266	(4)
Residential Electrical Wiring	CNST	A275	(5)
Res Lt Steel Frame Const	CNST	A285	(5)
Intro to Computer Appl	CIS	A100	(3)
(Or)			
Computer Use in Technology	CHT	A100	(5)
Building Const.	CNST	A185	(3)
Masonry Construction	CNST	A260	(3)

**Subtotal: (51)**

**Select three (3) units from the following:**

Building Code & Law	CNST	A195	(3)
Construction Estimating	CNST	A220	(3)
Construction Inspection	CNST	A230	(3)
Supervision & Project Mgmt	CNST	A250	(3)

**(3)**

**Total: (54)**

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

**RESIDENTIAL CONSTRUCTION**

**DEPARTMENTAL CERTIFICATES**

Students may earn a Certificate of Completion in any of the subject areas specified.

**CERTIFICATES OF SPECIALIZATION**

**Required Courses**

**CONCRETE & MASONRY**

Course			Units
Building Code & Law	CNST	A195	(3)
Concrete Construction	CNST	A210	(5)
Masonry Construction	CNST	A260	(3)

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**PLUMBING**

Course			Units
Plumbing 1	CNST	A265	(4)
Plumbing 2	CNST	A266	(4)
Solar Heating	CNST	A161	(4)

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**COSTUME TECHNICIAN**

The courses in this program provide the student with the practical knowledge and experience necessary to work in a costume shop building costumes for theatre and other entertainment arts. Students will also receive training in basic theatrical production practices and in backstage costuming skills as a dresser assisting actors during performances.

Program Outcomes Students will be able to:

1. Analyze, research and discuss a play in terms of technical costume requirements.
2. Collaborate with others to produce costumes for performance.
3. Work backstage during performances to maintain and repair costumes and assist actors with costume changes.

**Required Courses**

Course			Units
Stage Costuming	THEA	A178	(3)
Beg Clothing Techniques*	FASH	A100	(3)
Inter Clothing Techniques*	FASH	A101	(3)
History of Fashion	FASH	A120	(1.5)
Industrial Sewing Techniques	FASH	A102	(2)
Applied Textiles & Design	FASH	A110	(3)
Flat Pattern Techniques	FASH	A150	(3)
Tailoring	FASH	A130	(2)
Alterations	FASH	A137	(2)
Couture Techniques	FASH	A233	(2)
Draping	FASH	A235	(2)
Arts Internship	THEA	A181	(2)

**(28.5)**

**And choose 4 Production courses:**

OCC Theatre Repertory	THEA	A141	(3)
(Or)			
Summer Theatre Festival	THEA	A144	(4)
(Or)			
Play Production	THEA	A171	(2)
(Or)			
Elizabethan Play Workshop & Production	THEA	A172	(3)
(Or)			
Classic American Play Production	THEA	A173	(2)
(Or)			
Children's Theatre Workshop & Production	THEA	A174	(2)
(Or)			
Rehearsal & Performance	THEA	A215	(2)

**(8-12)**

**Total: (36.5- 40.5)**

\*Experienced sewers may demonstrate competency in techniques listed under Fashion A100 and A101 by taking Fashion A105, Sewing Skills Assessment.

**Suggested Electives:**

Intro to Theatre	THEA	A100	(3)
Make-up	THEA	A177	(3)
Intro to Computer Graphics	DMAD	A181	(3)

—See also

**ENTERTAINMENT TECHNOLOGY**

**FASHION**