

CSWB 220 Advanced JavaScript and XML (AJAX) (3)

2½ hours lecture - 1½ hours laboratory

Prerequisite: A minimum grade of 'C' in CSWB 120**Transfer acceptability:** CSU

Provides the knowledge and skills necessary to use JavaScript, XML, and server-side languages to develop dynamic Web-based applications. Topics of study include the use of asynchronous JavaScript, how to use the Document Object Model, the use of XML in Web page requests, how to use server-side languages (e.g. PHP, Java) to query and return information from a database and how to design and develop new AJAX applications.

CSWB 295 Directed Study in Web Technology (1, 2, 3)

3, 6, or 9 hours laboratory

Prerequisite: Approval of project or research by department chairperson/director**Note:** May be taken 3 times**Transfer acceptability:** CSU

Designed for the student who has demonstrated a proficiency in computer science subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

Construction Inspection (CI)

Contact Occupational & Noncredit Programs for further information.

(760) 744-1150, ext. 2284

Office: AA-135

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).

- Construction Inspection

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).

- Construction Inspection

PROGRAM OF STUDY**Construction Inspection**

Provide comprehensive education in inspection procedures, California code standards, and interpretation of construction drawings to a diverse constituency for a career in the construction industry.

**A.S. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements	Units
CI 89 Plumbing Codes	2.5
CI 90 Mechanical Codes	2.5
CI 100 Building Codes I	3
CI 101 Building Codes II	3
CI 105 Electrical Codes I	3
CI 106 Electrical Codes II	3
CI 115 Nonstructural Plan Review	3
CI 125 Plan Reading Technologies	3
CI 130 CalGreen Codes	3
TOTAL UNITS	26

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CI 89 Plumbing Codes (2.5)

2½ hours lecture

Note: May be taken 2 times

An in-depth study of the fundamental concepts and interpretations of current state adopted plumbing codes. Topics covered include compliance issues, plumbing specifications, basic plumbing principles, and inspection methods and techniques. International Association of Plumbing and Mechanical Officials (IAPMO) revisions every three years.

CI 90 Mechanical Codes (2.5)

2½ hours lecture

Note: May be taken 2 times

An in-depth study of the fundamental concepts and interpretations of current state adopted mechanical codes. Topics covered include compliance issues, mechanical specifications, basic mechanical principles, and inspection methods and techniques. International Conference of Building Officials (ICBO) revisions every three years.

CI 100 Building Codes I (3)

3 hours lecture

Note: May be taken 2 times**Transfer acceptability:** CSU

Introduction to building code requirements with an emphasis on minimum construction standards and code enforcement. Code requirements controlling the design, construction, quality of materials, use, occupancy and location of all buildings are evaluated. Revisions to the International Building Code are every three years.

CI 101 Building Codes II (3)

3 hours lecture

Note: May be taken 2 times**Transfer acceptability:** CSU

A study of the requirements and standards for design, loads, wood, concrete, masonry and steel buildings. The study of exits, roofs, fireplaces, drywall, glass and stucco systems are examined. Interpretation is based on the International Code Council (ICC) building code which is revised every three years.

CI 105 Electrical Codes I (3)

3 hours lecture

Note: May be taken 2 times**Transfer acceptability:** CSU

The first half of The National Electrical Code reviewed in an explanatory, easy-to-understand, yet in-depth manner. Basic electrical theory as it pertains to building construction is discussed with real-life situations used as examples of Code items and inspection techniques. Prepares students for electrical certification tests based on the building codes (both the ICC and the IAEI certifications), as well as advancing knowledge levels for existing Inspectors.

CI 106 Electrical Codes II (3)

3 hours lecture

Note: May be taken 2 times**Prerequisite:** A minimum grade of 'C' in CI 105**Transfer acceptability:** CSU

The second half of The National Electrical Code reviewed in an explanatory, easy-to-understand, yet in-depth manner. Basic electrical theory as it pertains to building construction is discussed with real-life situations used as examples of Code items and inspection techniques. Prepares students for electrical certification tests based on the building codes (both the ICC and the IAEI certifications), as well as advancing knowledge levels for existing Inspectors.

CI 115 Nonstructural Plan Review (3)

3 hours lecture

Note: May be taken 2 times**Transfer acceptability:** CSU

A study of basic methods used by plans examiners to check the nonstructural details of construction drawings in compliance with the international building code. Topics cover analyzing nonstructural details and determining compliance with the minimum requirements for concrete, masonry, wood, and steel structures.

CI 125 Plan Reading Technologies (3)
3 hours lecture**Transfer acceptability:** CSU

A survey of technologies in the construction inspection industry relating to plan reading. Content includes an introduction to construction plan reading; a review of the standard details and specifications used in the San Diego region; discussions on the various roles of the construction and building inspectors; employment opportunities and certifications; an overview of special inspection requirements; construction scheduling; and when and how often inspections should be performed. Content also includes an introduction to California Title 24 including the building, plumbing, electrical, mechanical, California Green Codes, and an introduction to the Americans with Disabilities Act (ADA).

CI 130 CalGreen Codes (3)
3 hours lecture

Note: May be taken 2 times

Transfer acceptability: CSU

Emphasizes the proper interpretation of the California Green Building Code and green building technologies. The scope of the course will provide inspectors, designers and contractors with the latest code requirements and national standards to promote sustainable communities. Topics include site planning and development, energy conservation, storm water pollution prevention and basic sustainability concepts.

CI 197 Construction Inspection Topics (.5-3)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

Topics in Construction Inspection. May be repeated with new subject matter. See Class Schedule for specific topic offered. Course title will designate subject covered.

Cooperative Education (CE)

Contact the Cooperation Education Department for further information.
(760) 744-1150, ext. 2354
Office: ST-54

General Cooperative Work Experience

In accordance with Board Policy 4103, the General Cooperative Work Experience Education Program is designed to give job information and experience to those students employed in jobs not related to coursework in school. Employment may be on or off campus; the student may or may not receive pay depending on where the work is performed. The Cooperative Education Coordinator will assist students in obtaining jobs.

STUDENT QUALIFICATIONS: In order to participate in cooperative work experience education students shall meet the following requirements:

1. Complete no less than seven units (summer session, one course) including cooperative work experience education.
2. Have approval of the Cooperative Work Experience Education Coordinator.
3. Have occupational or education goals to which, in the opinion of the Coordinator, the cooperative work experience education will contribute.
4. Pursue a planned program of cooperative work experience education which, in the opinion of the Coordinator, includes new or expanded responsibilities or learning opportunities beyond those experienced during the previous employment.

The number of units received each semester for on the job experience will be based on the total number of hours worked each semester or summer session as follows:

- 1 unit - 75 paid hours per semester or session; 60 volunteer hours
- 2 units - 150 paid hours per semester or session; 120 volunteer hours

A maximum of six units may be earned in general cooperative work experience, not to exceed three units each semester. In addition to the hours worked, a student must attend a coordinating class. Topics of discussion in the class include choice of occupation, employee information, job application, human relations, and appearance and personality development as related to employment in the vocational field.

Occupational Cooperative Work Experience

The Occupational Cooperative Work Experience Program is designed to coordinate on the job training and classroom instruction. Supervised employment is related to the occupational goal of the individual student. Employment may be on or off campus; the student may or may not receive pay, depending on where the work is performed. The Cooperative Education Coordinator will assist students in obtaining jobs.

STUDENT QUALIFICATIONS: In order to participate in cooperative work experience education students shall meet the following requirements:

1. Be a legally indentured or certified apprentice.
OR
2. Complete no less than seven units (summer session, one course) including cooperative work experience education.
AND
3. Have approval of the Cooperative Work Experience Education Coordinator.
4. Have occupational or education goals to which, in the opinion of the Coordinator, the cooperative work experience education will contribute.
5. Pursue a planned program of cooperative work experience education which, in the opinion of the Coordinator, includes new or expanded responsibilities or learning opportunities beyond those experienced during the previous employment.

The number of units received each semester for on the job experience will be based on the total number of hours worked each semester or summer session as follows:

- 1 unit 75 paid hours per semester or session; 60 volunteer hours
- 2 units 150 paid hours per semester or session; 120 volunteer hours
- 3 units 225 paid hours per semester or session; 180 volunteer hours
- 4 units 300 paid hours per semester or session; 240 volunteer hours

A maximum of sixteen units may be earned in occupational cooperative work experience, not to exceed four units each semester.

COURSE OFFERINGS

CE 100 Cooperative Education (1, 2, 3, 4)

1, 2, 3, or 4 hours lecture

Note: May be taken 4 times

Transfer acceptability: CSU

Supervised on the job training for all occupational students.

CE 110 Cooperative Education – General (2, 3)

2 or 3 hours lecture

Transfer acceptability: CSU

Supervised on the job training for all students.

CE 150 Cooperative Education Internship (2, 3)

10 or 15 hours laboratory

Note: May be taken 4 times

Transfer acceptability: CSU

Students learn major-specific knowledge and skills at an internship site that will enhance employment. Students design and complete an internship project in consultation with their internship advisor and job site supervisor.