

CSNT 235 Microsoft Exchange Server**(3)**

2½ hours lecture - 2 hours laboratory

Prerequisite: A minimum grade of 'C' in CSNT 121, 221, and 224**Note:** May be taken 2 times**Transfer acceptability:** CSU

Provides the knowledge and skills necessary to implement, administer, and troubleshoot information systems that incorporate Microsoft Exchange Server.

CSNT 260 Cisco Advanced Routing and Switching**(3)**

2½ hours lecture - 2 hours laboratory

Prerequisite: A minimum grade of 'C' in CSNT 161**Note:** May be taken 3 times**Transfer acceptability:** CSU

Development of knowledge and skills to configure advanced routing protocols, Local Area Networks (LANs), and LAN switching. Design and management of advanced networks. This 70-hour course of instruction prepares the student for Cisco certification examination.

CSNT 261 Cisco Wide Area Network Design and Support**(3)**

2½ hours lecture - 2 hours laboratory

Prerequisite: A minimum grade of 'C' in CSNT 260**Note:** May be taken 3 times**Transfer acceptability:** CSU

Development of knowledge and skills to design and configure advanced Wide Area Network (WAN) projects using Cisco IOS command set. This 70-hour course of instruction prepares the student for Cisco certification examination.

Computer Science and Information Systems - Web Technology (CSWB)**See also CSIS - Computer Science, CSIS - Database, CSIS - Information Technology, and CSIS - Networking**

Contact the Computer Science and Information Systems Department for further information.

(760) 744-1150, ext. 2387

Office: MD-275

<http://www.palomar.edu/csib>**Certificates of Proficiency -**

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

- Web Developer with Emphasis in Java/Open Source
- Web Developer with Emphasis in Windows
- Web Server Administrator with Emphasis in Linux
- Web Server Administrator with Emphasis in Windows

PROGRAMS OF STUDY**Web Developer with Emphasis in Java/Open Source**

This program includes the Web page design and programming languages that allow a developer to build dynamic Web applications with emphasis in the Java/Open Source platform.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110	Web Site Development with XHTML	3
CSWB 120	JavaScript	3
CSWB 150	PHP with MySQL	3
CSWB 170	Java for Information Systems	2.5
CSWB 220	Advanced JavaScript and XML (AJAX)	3

Electives (Select 1 course)

CSWB 130	Advanced Web Site Development	3
CSDB 110	Introduction to SQL	3
CSDB 140	Introduction to Oracle	3

TOTAL UNITS 17.5**Web Developer with Emphasis in Windows**

This program includes the Web page design and programming languages that allow a developer to build dynamic Web applications with emphasis in the Java/Open Source platform.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110	Web Site Development with XHTML	3
CSWB 120	JavaScript	3
CSWB 130	Advanced Web Site Development	3
CSWB 210	Active Server Pages	3
CSIT 180	C# Programming I	3
TOTAL UNITS		15

Web Server Administrator with Emphasis in Linux

This program includes the use and implementation of web-networked environments for the purpose of administering Internet/Intranet applications. Strong emphasis is placed on hands-on server administration, networking, supplemented with web development and design. The student may choose an emphasis on either the Linux/UNIX or Windows platforms.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110	Web Site Development with XHTML	3
CSWB 160	Perl Programming	2
CSCI 130	Linux Fundamentals	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3

Electives (Select 1 course)

CSCI 132	Linux Shell Scripting	3
GCMW 217	Online Store Design	4

TOTAL UNITS 17**Web Server Administrator with Emphasis in Windows**

This program includes the use and implementation of web-networked environments for the purpose of administering Internet/Intranet applications. Strong emphasis is placed on hands-on server administration, networking, supplemented with web development and design.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110	Web Site Development with XHTML	3
CSDB 210	SQL Server Administration	3
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3

Electives (Select 1 course)

CSDB 220	SQL Programming	3
GCMW 217	Online Store Design	4

TOTAL UNITS 15 - 16**COURSE OFFERINGS****CSWB 110 Web Site Development with XHTML (3)**

2 hours lecture - 3 hours laboratory

Note: May be taken 3 times**Transfer acceptability:** CSU

A foundation course for Internet/Intranet technologies. Skills required to develop and publish web sites utilizing XHTML, including using HTML tables, frames, web page forms, and basic CSS (Cascading Style Sheets).

CSWB 120 JavaScript (3)
 2½ hours lecture - 1½ hours laboratory
Recommended preparation: CSWB 110
Transfer acceptability: CSU
 Introduces the skills required to design Web-based applications using the JavaScript scripting language such as writing small scripts; working with data types; creating interactive forms using various form objects; and using the advanced features of JavaScript including loops, frames and cookies.

CSWB 130 Advanced Web Site Development (3)
 2 hours lecture - 3 hours laboratory
Recommended preparation: CSWB 110
Note: May be taken 2 times
Transfer acceptability: CSU
 Web-based application development using advanced features of HTML, Dynamic HTML, XHTML, and XML.

CSWB 150 PHP with MySQL (3)
 2½ hours lecture - 1½ hours laboratory
Recommended preparation: CSWB 110
Transfer acceptability: CSU
 Provides the knowledge and skills necessary to use the PHP scripting language to develop dynamic Web-based applications. Topics of study include the fundamentals of the scripting, using PHP with HTML forms, creating functions, and integrating with databases using MySQL.

CSWB 160 Perl Programming (2)
 1½ hours lecture - 1½ hours laboratory
Transfer acceptability: CSU
 Develops basic competency in the Perl programming language. Topics of study include scalar and array variables, control structures, file I/O, regular expressions and subroutines.

CSWB 170 Java for Information Systems (2.5)
 2 hours lecture - 2 hours laboratory
Recommended preparation: CSWB 120 or CSIT 170
Transfer acceptability: CSU
 An introduction to Java programming with emphasis on the syntax and structure of the Java language. Specific topics will include data types, exception handling, object-oriented programming, event-driven programming and an introduction to Java Servlets and JSPs.

CSWB 197 Topics in Web Technology (.5 - 4)
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 Web Technology. See class schedule for specific topic offered. Course title will designate subject covered.

CSWB 210 Active Server Pages (3)
 2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSWB 110 and CSIT 170
Transfer acceptability: CSU
 Introduction to the technologies and features in Active Server Pages. Topics include introduction to ASP, Webforms, controls, events, validation, custom controls, data binding, and various methods of code reuse, state management, configuration, caching, and application deployment.

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 4 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-136

Associate in Arts Degrees -

AA 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

Prepares students for a career as Building Construction Inspectors, or upgrades skills necessary for employment in the building construction trades.

A.A. 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 120	Structural Plan Review	3
CI 125	Plan Reading	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.