CSNT 124 Implementing a Microsoft Desktop Application Environment (3)
2 hours lecture - 3 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 121. Completion of, or concurrent enrollment in CSNT 121
Transfer acceptability: CSU
Provides the knowledge and skills necessary to design and prepare the desktop application environment. Design and implement a presentation virtualization environment, design and implement an application virtualization environment, deploy and manage the application environment, and design business continuity for the desktop and application environment.

CSNT 140 Linux Administration (3)
2 hours lecture - 3 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSCL 130
Transfer acceptability: CSU
For users of Linux (or UNIX) who want to start building skills in systems administration to a level where they can attach and configure a workstation on an existing network.

CSNT 141 Linux Networking and Security (3)
2 hours lecture - 3 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 140
Transfer acceptability: CSU
A hands-on introduction to important administration activities required to manage a Linux network configuration. Course will cover topics configuring TCP/IP, DNS, PPP, sendmail, Apache Web Server and the firewall.

CSNT 160 Cisco Networking Fundamentals (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 110
Recommended preparation: CSNT 111
Transfer acceptability: CSU
Emphasis on the OSI model and industry standards. Includes network topologies, IP addressing, subnet masks, basic network design and cable installation. This 70 hour course of instruction prepares the student for Cisco certification examination.

CSNT 161 Cisco Router Configuration (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 160
Transfer acceptability: CSU
Development of knowledge and skills to install, configure, customize, maintain and troubleshoot Cisco routers and components. This 70-hour course of instruction prepares the student for Cisco certification examination.

CSNT 180 Wireless Networking (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 110, and CSNT 111 or CSNT 160
Transfer acceptability: CSU
Provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. In-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11 b/g/n implementation, design, security, and troubleshooting. Material is reinforced with hands-on projects at the end of each chapter from two of the principal wireless LAN vendors, Cisco and Linksys.

CSNT 181 Hacker Prevention/Security (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 110, and CSNT 111 or CSNT 160
Transfer acceptability: CSU
In-depth analysis and hands-on experience in PC and network security concepts specific to Microsoft, Unix-based and Cisco systems. Various topics including hacker prevention and intrusion detection, firewall installation and configuration, wireless network security, disaster recovery, access control lists, identification of malicious code, cryptography and forensics. Team dynamics in a lab environment, planning, installing, and configuring various network security elements regarding hardware, software, and media. Understand and demonstrate proper planning and implementation of a secure network, document and offer training to end-users, executives, and human resources on the proper maintenance of a secure network.

CSNT 260 Cisco Advanced Routing and Switching (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: A minimum grade of ‘C’ in CSNT 161
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
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.

CSNT 280 Computer Forensics Fundamentals (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: CSU
Provides methods used to properly conduct a computer forensics investigation and analysis with the understanding of the objectives of the International Association of Certified Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools.

Computer Science and Information Technology - Web Technology (CSWB)
See also CSIT - Computer Science
CSIT - Information Technology, and CSIT - Networking

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: MD-275
http://www.palomar.edu/csit

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Information Technology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Information Technology

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

PROGRAMS OF STUDY

Information Technology

This program prepares students for employment in information systems applications development in business and industry. The focus is on developing skills in programming languages, Internet, spreadsheets, databases, presentation graphics, word processing, and database design. See a counselor for additional university transfer requirements in this major.
## A.S. Degree Major or Certificate of Achievement

### Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CSIT 105</td>
<td>Computer Concepts and Applications</td>
<td>3</td>
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<td>CSIT 120</td>
<td>Computer Applications</td>
<td>3</td>
</tr>
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<td>CSWB 110</td>
<td>Web Site Development with HTML5/CSS3</td>
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<td>Database Management Systems using Oracle</td>
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<td>C# Programming I</td>
<td>3</td>
</tr>
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<td>3</td>
</tr>
<tr>
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<tr>
<td>CSWB 210</td>
<td>Active Server Pages</td>
<td>3</td>
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<td>CSWB 220</td>
<td>Advanced JavaScript</td>
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</tr>
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<td>CSNT 111</td>
<td>Networking Fundamentals</td>
<td>3</td>
</tr>
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<td>CSIT 270</td>
<td>Visual Basic II</td>
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</tr>
</tbody>
</table>

### TOTAL UNITS

30

Information Technology A.A. Degree Major or Certificate of Achievement is also listed in Computer Science and Information Technology – Information Technology.

### 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

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### TOTAL UNITS

15

### 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

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<td>C# Programming I</td>
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</tbody>
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### TOTAL UNITS

15

### Course Offerings

- **CSWB 110 Web Site Development with HTML5/CSS3**
  - 2 hours lecture - 3 hours laboratory
  - **Transfer acceptability:** CSU
  - A foundation course for Internet/Intranet technologies. Skills required to develop and publish web sites utilizing HTML, including using HTML tables, web page forms, and basic CSS (Cascading Style Sheets).
  - **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. Learn to use jQuery to simplify JavaScript development.

- **CSWB 120 JavaScript and jQuery**
  - 2½ hours lecture - 1½ hours laboratory
  - **Recommended preparation:** CSWB 110
  - **Transfer acceptability:** CSU
  - Provides the knowledge and skills necessary to use JavaScript/JQuery techniques to develop dynamic Web applications that display in a browser or on mobile devices. Topics include jQuery Ajax, Mobile Web App Design using jQuery Mobile, DOM (Document Object Model) Navigation, connecting Web pages to server-side programs, XML and JSON.

- **CSWB 130 Mobile Web Application Development**
  - 2½ hours lecture - 1½ hours laboratory
  - **Recommended preparation:** CSWB 120
  - **Transfer acceptability:** CSU
  - Mobile Web-based application development using advanced features of HTML5, JavaScript/JQuery, and CSS.

- **CSWB 135 Advanced JavaScript and Mobile Apps**
  - 2½ hours lecture - 1½ hours laboratory
  - **Prerequisite:** CSWB 120
  - Provides the knowledge and skills necessary to use Advanced JavaScript/JQuery techniques to develop dynamic Web applications that display in a browser or on mobile devices. Topics include jQuery Ajax, Mobile Web App Design using jQuery Mobile, DOM (Document Object Model) Navigation, connecting Web pages to server-side programs, XML and JSON.

- **CSWB 150 PHP with MySQL**
  - 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**
  - 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 Technology**
  - 2½ hours lecture - 1½ hours laboratory
  - **Transfer acceptability:** CSU
  - Introduction to Java programming with emphasis on the syntax and structure of the Java language. Specific topics will include data types, decision statements, object-oriented programming, arrays, collections and date handling.

- **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.
  - **Transfer acceptability:** CSU
  - Topics in Web Technology. See class schedule for specific topic offered. Course title will designate subject covered.

See Catalog addendum at http://www.palomar.edu/catalog
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 3
CI 90 Mechanical Codes 3
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 27

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CI 89 Plumbing Codes (3)
3 hours lecture
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 (3)
3 hours lecture
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.

CI 100 Building Codes I (3)
3 hours lecture
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
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
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 advanced knowledge levels for existing Inspectors.

CI 106 Electrical Codes II (3)
3 hours lecture
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.