

Computer Science and Information Systems - Information Technology (CSIT)

See also CSIS - Computer Science, CSIS - Database, CSIS - Networking, and CSIS - Web Technology

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

(760) 744-1150, ext. 2387

Office: MD-275

<http://www.palomar.edu/csis>

Associate in Arts Degrees -

AA 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).

- Microsoft Office User Specialist

- Visual Basic

- Web 2.0

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, in systems analysis and design, project management, and database design. See a counselor for additional university transfer requirements in this major.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
CSIT 105 Computer Concepts and Applications	3
CSIT 120 Computer Applications	3
CSIT 170 Visual Basic I	4
CSIT 290 Systems Analysis and Design	4
CSDB 110 or Introduction to SQL	3
CSDB 140 Introduction to Oracle	3
CSNT 110 Hardware and O.S. Fundamentals	4
CSNT 111 Networking Fundamentals	4
CSWB 110 Web Site Development with XHTML	3
Group 1 (Select 2 courses)	
CSIT 121 Advanced Computer Applications	3
CSIT 180 C# Programming I	3
CSIT 270 Visual Basic II	4
CSCI 130 Linux Fundamentals	3
CSDB 120 SQL Database Design	3
or	
CSDB 150 Oracle Database Design	3
CSWB 130 Advanced Web Site Development	3
CSWB 150 PHP with MySQL	3
CSWB 170 Java for Information Systems	2.5
Group 2 (Select 1 course)	
CSIT 271 Visual Basic III	4
CSWB 210 Active Server Pages	3
CSIT 280 C# Programming II	3
CSWB 120 JavaScript	3
CSIT 70 Web 2.0 - The Web's Edge	3
TOTAL UNITS	36.5 - 39

Microsoft Office User Specialist

The Microsoft Office User Specialist (MOUS) Program is a validation program that provides proof of proficiency in Microsoft Office applications. It is available for Microsoft Office applications at both Proficient and Expert User levels. As a general rule of thumb, Proficient Specialists can handle a wide range of everyday tasks with ease. Expert Specialists are expected to do all those everyday tasks, plus handle more complex assignments that require more advanced formatting and functionality.

Users who attain Expert Specialist status on all five core Office applications (Word, Excel, Access, PowerPoint and Outlook) qualify to take the Microsoft Office Integration Exam. Passing this exam demonstrates that the user is not only an expert in the individual Office products, but is also skilled in integrating them into a cohesive whole. This entitles the user to be called a Microsoft Office Expert.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSIT 131 Word	1.5
CSIT 132 Excel	1.5
CSIT 133 PowerPoint	1.5
CSIT 134 Outlook	1.5
CSIT 135 Access	1.5
TOTAL UNITS	7.5

Visual Basic

This certificate is designed for individuals interested in acquiring the advanced programming skills necessary to design and implement Visual Basic programs.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSIT 170 Visual Basic I	4
CSIT 270 Visual Basic II	4
CSIT 271 Visual Basic III	4
CSWB 210 Active Server Pages	3
TOTAL UNITS	15

Web 2.0

Program will offer students the opportunity to explore cutting edge technologies of the World Wide Web.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSIT 70 Web 2.0 - The Web's Edge	3
CSIT 74 Gmail	1.5
CSIT 75 Google Docs	2
CSIT 77 Google Apps I	2
CSIT 78 Google Apps II	2
TOTAL UNITS	10.5

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CSIT 50 Practical PC (1.5)

1 hour lecture - 1½ hours laboratory

Note: May be taken 3 times

An introduction to the personal computer. Focus is on the basic skills to use and manage your home computer. Topics include: PC Basics; Windows Operating System; Computer Files; the Internet, the Web and E-mail; Application Software; Graphics, Sound and Video; and simple upgrades and expansion.

CSIT 60 Introduction to Online Learning (1.5)

1 hour lecture - 1½ hours laboratory

Introduction to developing the skills necessary to succeed in an online or in-house course using modern computer technology. Learn and apply the basics of

Windows environment, data organization and management, Blackboard Academic Suite, E-Services, the Internet, the World Wide Web, E-mail, and additional tools to enable successful use of electronic tools in a classroom.

CSIT 70 Web 2.0 - The Web's Edge (3)
2½ hours lecture - 1½ hours laboratory

Note: May be open entry/open exit

Surveys new technology at the cutting edge of the World Wide Web. Explores Web 2.0 Rich Internet Applications, Services Oriented Architecture, and Social Web applications.

CSIT 74 Gmail (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be open entry/open exit

Introduces Google's webmail services including email, instant messaging, and calendar features.

CSIT 75 Google Docs (2)
1 hour lecture - 3 hours laboratory

Note: May be open entry/open exit

Introduces Google Docs which allows the creation of documents, spreadsheets, and presentations online.

CSIT 77 Google Apps I (2)
1 hour lecture - 3 hours laboratory

Note: May be open entry/open exit

Introduces Google's online applications such as Gmail, Google Talk, Google Calendar, Google Docs, and Google Page Creator.

CSIT 78 Google Apps II (2)
1 hour lecture - 3 hours laboratory

Note: May be open entry/open exit

Introduces Google online applications such as Google Search, Google Maps, Google Earth, Blogger, Groups, Orkut, and Photos.

CSIT 105 Computer Concepts and Applications (3)
2 hours lecture - 3 hours laboratory

Transfer acceptability: CSU; UC – no credit if taken after CSCI 108 or 110

The study of computer concepts and basic proficiency in modern application software. Computer concepts will focus on basic terminology; computer literacy; information literacy; hardware; software; information systems; state-of-the-art technology; structured design techniques, overview of the computer industry; ethics and current issues including virus protection and prevention. Hands-on introduction to Windows operating system and application software including basic proficiency of the Internet; browsers and e-mail. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 120 Computer Applications (3)
2 hours lecture - 3 hours laboratory

Note: May be taken 4 times; maximum of 4 completions in any combination of CSIT 120, CSIT 121

Transfer acceptability: CSU

Hands-on experience with microcomputers and microcomputer applications featuring the use of Windows, word processing, spreadsheet, database, and presentation graphics software. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 121 Advanced Computer Applications (3)
2 hours lecture - 3 hours laboratory

Prerequisite: A minimum grade of 'C' in CSIT 120

Transfer acceptability: CSU

Hands-on experience with advanced microcomputer applications featuring the use of word processing, spreadsheet, database and presentation graphics software. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 130 Windows Vista (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be open entry/open exit

Transfer acceptability: CSU

Overview of Windows Vista operating system. Explore the resources provided by the Windows Vista operating system; manage files, documents and folders; run programs and gadgets; explore communication and scheduling; explore the Internet; set up printers; customize Windows Vista; maintain security; and manage Windows Vista.

CSIT 131 Word (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be taken 2 times

Transfer acceptability: CSU

Intended for individuals seeking the fundamental and advanced skills of Microsoft Word word processing software. Prepares individuals who are seeking to become a Microsoft Proficient Specialist and Microsoft Word Expert Specialist.

CSIT 132 Excel (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be taken 2 times

Transfer acceptability: CSU

Intended for individuals seeking the fundamental and advanced skills of Microsoft Excel spreadsheet software. Prepares individuals who are seeking to become a Microsoft Excel Proficient Specialist and Microsoft Excel Expert Specialist

CSIT 133 PowerPoint (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be taken 2 times

Transfer acceptability: CSU

Intended for individuals seeking the fundamental and advanced skills of Microsoft PowerPoint graphics software. Prepares individuals who are seeking to become a Microsoft PowerPoint Expert Specialist.

CSIT 134 Outlook (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be taken 2 times

Transfer acceptability: CSU

Introduction of fundamental and advanced skills of Microsoft Outlook software. Helps prepare individuals who are seeking to become a Microsoft Outlook Proficient Specialist and Microsoft Outlook Expert Specialist.

CSIT 135 Access (1.5)
1 hour lecture - 1½ hours laboratory

Note: May be taken 2 times

Transfer acceptability: CSU

Intended for individuals seeking the fundamental and advanced skills of Microsoft Access database software. Helps prepare individuals who are seeking to become a Microsoft Access Proficient Specialist and Microsoft Access Expert Specialist.

CSIT 140 Online Social Networks (1.5)
1 hour lecture - 1½ hours laboratory

Focuses on the utilization of social networks to connect with colleagues, customers, family, and friends as well as the dangers and benefits of online social networking. Additional focus on building professional communication channels with Facebook and Twitter utilizing third-party tools. Other social networking forms, such as online gaming and alternate lives in virtual worlds will be explored.

CSIT 170 Visual Basic I (4)
3½ hours lecture - 1½ hours laboratory

Transfer acceptability: CSU

Design, create, test and run computer applications using Visual Basic. Emphasis is on learning the fundamentals of the Visual Basic interface and how to solve problems using structured design logic and the sequence, decision and repetition procedural language control structure. Selected additional features of the Visual Basic interface and procedural language are included to provide a foundation for the study of more advanced courses.

CSIT 180 C# Programming I (3)
2½ hours lecture - 1½ hours laboratory

Transfer acceptability: CSU; UC

Provides the knowledge and skills necessary to use the C# programming language in the .NET Framework. Build Windows applications and server-side programs; access data with ADO.NET; use C# with Web Forms and .NET CLR.

CSIT 197 Topics in Information 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 Information Technology. See class schedule for specific topic offered. Course title will designate subject covered.

CSIT 270 Visual Basic II (4)

3½ hours lecture - 1½ hours laboratory

Prerequisite: A minimum grade of 'C' in CSIT 170

Transfer acceptability: CSU

An intermediate-level programming language which provides for building special purpose Windows applications using the Graphical User Interface of Windows. Includes extensive practice using programming logic control structures in designing algorithms and a wide array of Visual Basic objects in implementing the three-step approach to building Windows applications in Visual Basic.

CSIT 271 Visual Basic III (4)

3½ hours lecture - 1½ hours laboratory

Prerequisite: A minimum grade of 'C' in CSIT 270

Transfer acceptability: CSU

Advanced course in Visual Basic programming. Special emphasis will be placed on the application of the Visual Basic language to solve business problems including requirements definition, design, construction, testing, and documentation. Multiple forms, objects, controls, object linking and embedding (OLE), and the use of the data control object to interface with databases external to Visual Basic will be covered.

CSIT 280 C# Programming II (3)

2½ hours lecture - 1½ hours laboratory

Prerequisite: A minimum grade of 'C' in CSIT 180

Transfer acceptability: CSU; UC

Provides intermediate-level knowledge and skills necessary to use the C# programming language. Topics include language syntax, data types, operators, exception handling, casting, string handling, data structures, collection classes and delegates. Programming of windows-based applications is presented along with object-oriented programming that includes classes, methods, polymorphism and inheritance. Event-driven programming is discussed along with the C# development and execution environment.

CSIT 290 Systems Analysis and Design (4)

3½ hours lecture - 1½ hours laboratory

Prerequisite: A minimum grade of 'C' in CSIT 170 or CSCI 110 or CSCI 220

Transfer acceptability: CSU; UC

Specific projects, problems, and systems. Application of appropriate programming languages and the use of analytical tools in solving case studies and problems.

CSIT 295 Directed Study in Information 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; UC - Credit determined by UC upon review of course syllabus.

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

Computer Science and Information Systems - Networking (CSNT)

See also CSIS - Computer Science, CSIS - Database, CSIS - Information Technology, and CSIS - Web Technology

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Associate in Arts Degrees -

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

- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

Certificates of Achievement -

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

- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

Certificates of Proficiency -

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

- Cisco
- Desktop Support Specialist - MCSA
- Network Engineer - MCSE

PROGRAMS OF STUDY**Cisco**

The Cisco networking program is designed to teach students the skills needed to design, build, and maintain small to medium-sized networks. This provides students the opportunity to enter the workforce and/or further their education and training in the computer-networking field.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161	Cisco Router Configuration	3
CSNT 260	Cisco Advanced Routing/Switching	3
CSNT 261	Cisco WAN Design/Support	3
TOTAL UNITS		12

Computer Network Administration with Emphasis in Cisco and Linux Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Cisco and Linux/Unix. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	4
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161*	Cisco Router Configuration	3
CSNT 180	Wireless Networking	3