

Computer Information Science Department

DEGREES:

Computer Programming (AS)
Microcomputer Applications (AS)
Web Design and Development (AS)

CERTIFICATES OF ACHIEVEMENT

Computer Programming
Microcomputer Applications
Web Design and Development

JOB-DIRECT LOW UNIT CERTIFICATES

Computer Applications Specialist
Database Specialist
Digital and Print Publishing
Digital Media and Web Development
Microsoft Office Specialist
Motion Graphic Editor
Web Programmer

COURSES:

CIS (Computer Information Science)

CONTACT INFORMATION:

School of Applied Technology and Business

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P.A.C.E. - SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS - A PATHWAY FOR ACADEMIC AND CAREER EXCELLENCE AT SOLANO COMMUNITY COLLEGE

ARE YOU THE KIND OF PERSON WHO...

- ...desires to observe, learn, analyze, evaluate, or solve problems?
- ...enjoys to question and explore physical or biological happenings?
- ...likes to work hands-on with objects, machines, tools, plants, or animals?
- ...is interested in math and/or thinking analytically to solve complex problems?

P.A.C.E. - BUSINESS AND MANAGEMENT - A PATHWAY FOR ACADEMIC AND CAREER EXCELLENCE AT SOLANO COMMUNITY COLLEGE

ARE YOU THE KIND OF PERSON WHO...

- ...desires to influence, lead or manage to reach your personal or organizational goals and/or economic gain?
- ...enjoys facts, numbers, and details?
- ...likes to carry out tasks in detail or to follow through on other's instructions?
- ...is interested in learning about how to turn your ideas into a sustainable business?

Computer Information Science

Computer Programming

Certificate of Achievement and Associate in Science

Program Description

This program is designed to prepare the student for employment as a computer programmer trainee.

The Certificate of Achievement can be obtained upon completion of the 33-unit major. The Associate in Science may be obtained by completing the 33-unit major, General Education, and electives as needed to complete a minimum of 60 units. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Computer Programming Certificate of Achievement/Associate in Science will be able to:

1. Construct applications that use GUI (graphical user interface) components and access databases for data permanence.
2. Develop a programming solution to a data structure problem using object-oriented methodologies and appropriate data structures and algorithms.
3. Implement a well-designed, properly normalized relational database after analyzing user requirements and business rules.

REQUIRED COURSES Units

(listed in recommended sequence)

CIS 001 Introduction to Computer Science	3
BUS 092 Business Communication	3
CIS 022 Introduction to Programming	3
CIS 055 MS Windows Operating Systems	3
CIS 023 Data Structures and Algorithms	3
CIS 015 Programming in Visual Basic.NET	3
CIS 089 Essential Networking Technologies	3
CIS 078 Access - Database Management System	3
CIS 052 UNIX Operating System	3
CIS 020 Assembly Programming	3
3 units from Recommended Electives	3

Required Major Total Units.....33

Recommended Electives (select 3 units) Units

ACCT 001 Principles of Accounting - Financial.....	4
ACCT 002 Principles of Accounting – Managerial.....	4
BUS 005 Introduction to Business	3
CIS 035 Introduction to Java Programming	3
CIS 060 Introduction to the Internet	1.5
CIS 061 Creating Web Pages	3
CIS 066 Microsoft Word.....	3
CIS 073 Microsoft Excel	3
CIS 080 SQL Database Management Systems	3
OCED 090 Occupational Work Experience	1- 8
OCED 091 General Work Experience.....	1-6

Note: Students planning to transfer to a four-year college and major in Management Information Systems/ Computer Science should see a counselor regarding Business Articulation Agreements for a particular university campus.

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Computer & Info Science: Computer Programming."

Computer Information Science

Microcomputer Applications

Certificate of Achievement and Associate in Science

Program Description

This program is designed to prepare the student for employment as a microcomputer applications specialist.

The Certificate of Achievement can be obtained upon completion of the 30-unit major. The Associate in Science may be obtained by completing the 30-unit major, General Education, and electives as needed to complete a minimum of 60 units. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Microcomputer Applications Certificate of Achievement/Associate in Science will be able to:

1. Demonstrate knowledge of application software such as word processing, spread sheets, personal information management, database, operating systems, and networking, presentation and html editors.
2. Understand Visual Basic programming.
3. Demonstrate effective oral and written communication.

REQUIRED COURSES Units

(listed in recommended sequence)

CIS 001 Introduction to Computer Science	3
CIS 015 Programming in Visual Basic.NET	3
CIS 055 MS Windows Operating Systems.....	3
CIS 061 Creating Web Pages	3
CIS 066 Microsoft Word.....	3
CIS 073 Microsoft Excel	3
CIS 078 Access - Database Management System	3
CIS 089 Essential Networking Technologies	3
CIS 090 Introduction to PowerPoint	1.5
CIS 091 Microsoft Outlook.....	1.5
BUS 092 Business Communication	3
Required Major Total Units.....	30

This is a Gainful Employment Program. For additional information, please visit
http://www.solano.edu/gainful_employment/ and select "Computer & Info Science: Microcomputer Applications."

Computer Information Science

Web Design and Development

Certificate of Achievement and Associate in Science

Program Description

This program is designed to prepare the student for employment as a website designer or developer. Career Opportunities: Web Designer, Web Development, Motion Graphic/Animation Video Editor, Print Designer.

The Certificate of Achievement can be obtained upon completion of the 22.5-unit major. The Associate in Science may be obtained by completing the 22.5-unit major, General Education, and electives as needed to complete a minimum of 60 units. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Web Design and Development Certificate of Achievement/Associate in Science will be able to:

1. Produce functional web pages replete with responsive web elements.
2. Properly use design elements and an HTML editor in creating web pages.
3. Develop a project incorporating CSS, search forms, tables, photo galleries, shared borders, themes, interactive components, dynamic web pages and publish to a server.
4. Create web elements for print design and production.
5. Create and edit production quality animation and video

REQUIRED COURSES	Units
CIS 001 Introduction to Computer Science	3
CIS 061 Creating Web Pages	3
CIS 062 Creating Web Interactivity with Flash.....	3
CIS 069 Multimedia for the Web	3
CIS 070 Adobe Photoshop for the Web.....	3
CIS 085 Digital Publishing with InDesign	3
CIS 087 Adobe Illustrator for the Web.....	3
BUS 097 Work Readiness.....	1.5
Required Major Total Units.....	22.5

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Web Design and Development."

Computer Information Science

Computer Applications Specialist

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
BUS 097 Work Readiness.....	1.5
CIS 066 Microsoft Word.....	3
CIS 073 Microsoft Excel	3
CIS 078 Access - Database Management System	3
Total Units.....	10.5

Microsoft Office Specialist

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 066 Microsoft Word.....	3
CIS 073 Microsoft Excel	3
CIS 078 Access-Database Management System	3
CIS 090 Introduction to PowerPoint	1.5
CIS 091 Microsoft Outlook	1.5
Total Units	12

Database Specialist

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 072 Extensible Markup Language (XML)	1.5
CIS 078 Access - Database Management System	3
CIS 080 SQL Database Management Systems	3
Total Units.....	7.5

Motion Graphic Editor

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 062 Creating Web Interactivity.....	3
CIS 069 Multimedia for the Web	3
CIS 087 Adobe Illustrator for the Web	3
Total Units.....	9

Digital and Print Publishing

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 070 Adobe Photoshop for the Web	3
CIS 085 Digital Publishing with InDesign	3
CIS 087 Adobe Illustrator for the Web.....	3
BUS 097 Work Readiness.....	1.5
Total Units.....	10.5

Web Programmer

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 015 Programming in Visual Basic.NET	3
CIS 035 Introduction to Java Programming	3
CIS 068 Object Oriented Game Programming with Flash	3
CIS 075 Client-Side Web Programming	3
CIS 081 Server-Side Web Programming	3
Total Units.....	15

Digital Media and Web Development

Job-Direct Low Unit Certificate

REQUIRED COURSES	Units
CIS 061 Creating Web Pages	3
CIS 062 Creating Web Interactivity	3
CIS 070 Adobe Photoshop for the Web	3
CIS 087 Adobe Illustrator for the Web.....	3
Total Units.....	12