COMPUTER SCIENCE

Computer Science Associate in Science Degree
PROGRAM CODE: 2S08408

The **Computer Science Associate in Science Degree** prepares students to transfer to colleges and universities that offer bachelor's degrees in computer science. Students with a degree in computer science may pursue careers in many areas of industry, such as aerospace, health, finance, entertainment, and more. Opportunities for specialties in the field include software engineering and development, computer networks and security, telecommunications, mobile computing, game programming, internet and web technology, embedded systems and real-time programming, systems analysis, information technology, distributed computing and artificial intelligence. The Computer Science Associate in Science Degree program requires 24 units of which 20 units are in required courses. An additional 4 units must be chosen from the restricted electives. A minimum grade of "C" is required in all courses.

Program Level Student Learning Outcomes
Outcome 1: *Write computer programs to solve problems.*
Outcome 2: *Design and implement Abstract Data Types using object-oriented techniques.*

Required Courses (20 units)

Suggested sequence		Units
CSCI 123 F	Introduction to Programming Concepts in C++	4
CSCI 133 F	Data Structures in C++	4
MATH 150BF	Calculus II	4
MATH 171 F	Discrete Mathematics	4
MATH 172 F	Graph Theory and Linear Algebra	4

Restricted Electives (4 units)		Units
CSCI 223 F	C Language for Math and Science	4
CSCI 241 F	Computer Organization and Assembly Language Programming	4
Total Units		**24**

CONSTRUCTION

Construction Inspection Associate in Science Degree
PROGRAM CODE: 2S13208

Curriculum leads to the **Construction Inspection Associate in Science Degree** and/or entry-level employment in the construction industry. A total of 18 units is required.

Required courses (18 units)		Units
CSTR 030 F	Construction Blueprint Reading	3
CSTR 032 F	Uniform Plumbing Code	3
CSTR 034 F	National Electrical Code	3
CSTR 036 F	Uniform Building Code-Residential	3
CSTR 037 F	Uniform Building Code-Commercial/Industrial	3
CSTR 038 F	Uniform Mechanical Code	3
Total Units		**18**

Construction Management Associate in Science Degree
PROGRAM CODE: 2S03844

Curriculum leads to the **Associate in Science Degree** and/or employment in the construction industry. A total of 24 units are required. High School preparation: woodwork, drafting, and mathematics are recommended.

Program Level Student Learning Outcomes
Outcome 1: *Differentiate the various construction delivery methods.*
Outcome 2: *Interpret the alphabet of lines.*

Complete 24 or more units from the following list:		Units
ACCT 101AF	Financial Accounting	5
BUS 100 F	Introduction to Business	3
BUS 180 F	Small Business Management	3
CIS 100 F	Introduction to Personal Computers	4
CSTR 014 F	Contractor's License Law	3
CSTR 015 F	Construction Management	3
CSTR 030 F	Construction Blueprint Reading	3
CSTR 110 F	Residential Estimating	3
CSTR 112 F	Construction Materials, Specifications and Purchasing	2
Total Units		**24**

CSTR 036_F → CSTR 41_F
CSTR 037_F → CSTR 31_F

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Construction Technology
Associate in Science Degree
PROGRAM CODE: 2S03839

The **Construction Technology Associate in Science Degree** requires 24 units from the following catalog list of classes.

Program Level Student Learning Outcomes
Outcome 1: *Differentiate between a builder's level and a transit.*
Outcome 2: *Name the three qualities of a building.*

Complete 24 or more units from the following list:		Units
CSTR 006 F	Residential Plumbing and Mechanical Systems	3
CSTR 007 F	Residential Electrical Systems	2
CSTR 014 F	Contractor's License Law	3
CSTR 018 F	Residential Construction Practice II	4
CSTR 030 F	Construction Blueprint Reading	3
CSTR 042 F	Residential Steel Frame Construction	4
CSTR 100 F	Beginning Residential Constr	4
CSTR 102 F	Residential Finish Carpentry	4
CSTR 104 F	Concrete and Masonry	3
CSTR 108 F	Surveying for Builders	2
CSTR 110 F	Residential Estimating	3
CSTR 112 F	Construction Materials, Specifications and Purchasing	2
CSTR 116 F	Residential Construction Practice II	4
WOOD 110 F	Fundamentals of Woodwork	4
Total Units		**24**

Construction Estimating Skills Certificate
PROGRAM CODE: 2C00045

The **Construction Estimating Certificate** Program requires a total of 17 units in required courses. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Program Level Student Learning Outcomes
Outcome 1: *Perform a basic take-off calculation.*
Outcome 2: *Formulate the number of studs in a wall.*

Required Courses (17 units)		Units
CSTR 015 F	Construction Management	3
CSTR 030 F	Construction Blueprint Reading	3
CSTR 060 F	Computer Estimating-Construction	3
CSTR 065 F	Construction Project Scheduling	3
CSTR 110 F	Residential Estimating	3
CSTR 112 F	Construction Materials, Specs and Purchasing	2
Total Units		**17**

Construction Inspection Certificate
PROGRAM CODE: 2C21272

The **Construction Inspection Certificate** requires the completion of 25 units of which 15 units are in required courses. An additional 10 units must be chosen from the restricted electives listed below. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Program Level Student Learning Outcomes
Outcome 1: *Identify building occupancies.*
Outcome 2: *Select a specific code application.*

Required Courses (15 units)		Units
CSTR 032 F	Uniform Plumbing Code	3
CSTR 034 F	National Electrical Code	3
CSTR 036 F	Uniform Building Code - Residential	3
CSTR 037 F	Uniform Building Code - Commercial/Industrial	3
CSTR 038 F	Uniform Mechanical Code	3

Restricted Electives (10 units)		Units
CSTR 006 F	Residential Plumbing and Mechanical Systems	3
CSTR 030 F	Construction Blueprint Reading	3
CSTR 104 F	Concrete and Masonry	3
CSTR 108 F	Surveying for Builders	2
TECH 081 F	Technical Mathematics I	3
TECH 088 F	Technical Science	3
TECH 127 F	Industrial Safety	1
Total Units		**25**

Construction Technology Certificate
PROGRAM CODE: 2C21271

The **Construction Technology Certificate** Program requires a total of 29 units of which 17 units are in required courses. An additional 12 units must be chosen from the restricted electives listed below. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. Any course offered in the construction technology department (ARCH, CSTR or WOOD) will fulfill requirements for the restricted electives. The certificate leads to entry-level employment in the construction industry.

Program Level Student Learning Outcomes
Outcome 1: *Calculate differences in elevation from plotted stakes.*
Outcome 2: *Illustrate the location of utilities on a plot plan.*

Required Courses (17 units) Units

Code	Course	Units
CSTR 006 F	Residential Plumbing/Mechanical Systems	3
CSTR 100 F	Beginning Residential Constr	4
CSTR 102 F	Residential Finish Carpentry	4
CSTR 104 F	Concrete and Masonry	3
CSTR 110 F	Residential Estimating	3

Restricted Electives (12 units) Units

Code	Course	Units
CSTR 005 F	Construction Technology Lab	0.5-2
CSTR 007 F	Residential Electrical Systems	2
CSTR 014 F	Contractor's License Law	3
CSTR 015 F	Construction Management	3
CSTR 016 F	Bus Admin for Construction Industry	3
CSTR 018 F	Residential Construction Practices II	4
CSTR 020 F	Remodeling/Additions Construction I	4
CSTR 022 F	Remodeling/Addition Construction II	4
CSTR 028 F	Introduction to Alternate Energy	2
CSTR 030 F	Construction Blueprint Reading	3
CSTR 031 F	International Building Code	3
CSTR 032 F	Uniform Plumbing Code	3
CSTR 033 F	Commercial Construction Blueprint Reading	3
CSTR 034 F	National Electrical Code	3
CSTR 035 F	CA Accessibility & Energy Code	3
CSTR 036 F	Uniform Building Code-Residential	3
CSTR 037 F	Uniform Building Code-Commercial/Industrial	3
CSTR 038 F	Uniform Mechanical Code	3
CSTR 039 F	Commercial Mechanical Code	3
CSTR 040 F	Building Design-Hazard Materials	3
CSTR 041 F	International Residential Code	3
CSTR 042 F	Residential Steel Frame Construction	4
CSTR 050 F	Comp Design Software/Contractor	2
CSTR 060 F	Computer Estimating-Construction	3
CSTR 065 F	Construction Project Scheduling	3
CSTR 108 F	Surveying for Builders	2
CSTR 112 F	Construction Materials, Specs and Purchasing	2
CSTR 116 F	Residential Construction Practice II	4

Total Units 29

COSMETOLOGY

Cosmetology Associate in Science Degree
PROGRAM CODE: 2S03887

Curriculum leads to the **Associate in Science Degree** and prepares the student to pass the California Board of Barbering and Cosmetology examination. The program requires 50 units in required courses.

Program Level Student Learning Outcomes
Outcome 1: *Evaluate the difference between the articles listed in the State Board Rules and Regulation and Cosmetology Acts Manuals.*
Outcome 2: *Create, organize, and produce a professional job resume.*

Required courses (50 units):		Units
COSM 055AF	Cosmetology: Level 1	11
COSM 055BF	Cosmetology: Level 2	11
COSM 055CF	Cosmetology: Level 3	10
COSM 055DF	Cosmetology: Level 4	9
COSM 055EF	Cosmetology: Level 5	9
Total Units		**50**

Cosmetology Instructor Associate in Science Degree
PROGRAM CODE: 2S08439

The **Cosmetology Instructor Associate in Science Degree** will prepare a student for a career and/or employment as an instructor trained to teach the technical skills necessary for work with hair, skin and nails. Preparation includes communications skills, advanced Avant-garde make-up, and principles of selling products and services. This program is designed to introduce and/or expand Pivot Point principles and advanced techniques. This degree requires a total of 20-22 units of which 8 units are in required courses and additional 12-14 units of restricted electives must be chosen from the list below.

Program Level Student Learning Outcomes
Outcome 1: *Create, appraise and justify lesson plans.*
Outcome 2: *Instruct with a variety of technologies including videos, laser disk, DVD's remote control, and PowerPoint Software.*

Required courses (8 units)		Units
COSM 060 F	Instruction Techniques in Cosmetology/Esthetician	8