

Program Student Learning Outcome Statement

- Recognize and appropriately apply current and historical Software Engineering design patterns, algorithms, and data structures to produce efficient, well-engineered software products.

FIRST SEMESTER

MATH 119	Elementary Statistics	4
MATH 130	Introduction to Computer Programming	4

SECOND SEMESTER

MATH 140	Data Structures and Algorithms	4
MATH 250	Analytic Geometry and Calculus I	5

THIRD SEMESTER

MATH 230	Computer Organization and Architecture	4
Total units		21

Recommended Electives: MATH 251, 252, 253, 254, 260.

To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

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The program below is undergoing modification and the modification will be placed into an addendum upon Chancellor's Office approval - see your counselor for further information and visit the college website under <http://www.swccd.edu/catalog> link for the latest addenda updates.

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CERTIFICATE

COMPUTER SCIENCE

CERTIFICATE OF ACHIEVEMENT

CAREER/TECHNICAL (MAJOR CODE: 02191)

GAINFUL EMPLOYMENT:

The U.S. Department of Education requires colleges to disclose a variety of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation."

Students who complete this program will have acquired the necessary analytical tools to successfully secure gainful employment in the field of study.

For more information regarding the data provided for this program and what it means to you as a student, please feel free to visit our SWC Gainful Employment website at: www.swccd.edu/gainfulemployment

Program Student Learning Outcome Statement

- Recognize and appropriately apply current and historical Software Engineering design patterns, algorithms, and data structures to produce efficient, well-engineered software products.

FIRST SEMESTER

MATH 119	Elementary Statistics	4
MATH 130	Introduction to Computer Programming	4

SECOND SEMESTER

MATH 140	Intermediate Computer Programming	3
MATH 250	Analytic Geometry and Calculus I	5

THIRD SEMESTER

MATH 230	Computer Organization and Architecture	4
Total units		20

CONSTRUCTION INSPECTION

SCHOOL OF BUSINESS AND TECHNOLOGY

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DEAN: Mink Stavenga, DBA, Office 470K, 619-482-6569

DEPARTMENT CHAIR: Marie Vicario-Fisher, M.S., M.P.H.

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GENERAL DESCRIPTION

Construction Inspection is the study of the design, fabrication, codes, inspection processes, and licensure governing the construction of structures, both residential and commercial. This program explores blueprint reading, site plans, cost estimation, construction materials, soil engineering, mechanical construction, inspection procedure, building codes, quality control management, and license laws for contractors.

CAREER OPTIONS

Below is a sample of the options for construction inspection majors. Most require a certificate achievement or an associate in science degree, some require a bachelor's degree, and a few of these may require a graduate-level degree: construction inspector, estimator, apprentice as a carpenter, electrician, plumber, mason, cement finisher, roofer, painter, licensed contractor, soil engineer, architect, project engineer, quality control manager, vocational teacher, and positions available in all professions of manufacturing, retail and wholesale, business, industry, and the military or government.



DEGREE/CERTIFICATE OPTIONS**MAJOR CODE**

Associate in Science Degree: Career/Technical	
Construction Inspection	02880
Construction Management	02881

Certificates of Achievement

Construction Inspection	02882
Construction Management	02883

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

ASSOCIATE IN SCIENCE DEGREE**CONSTRUCTION INSPECTION****ASSOCIATE IN SCIENCE DEGREE
CAREER/TECHNICAL (MAJOR CODE: 02880)**

Provides entry-level training to prepare students to become construction inspectors. Construction inspectors verify that contractors and subcontractors comply with the architect's plans and the various uniform building codes. Construction inspection is recognized as a major career opportunity area by agencies of both industry and government.

Program Student Learning Outcome Statement

- Demonstrate an ability to apply problem solving strategies and integrate technical knowledge.

FIRST SEMESTER

CI 10	Building Plans and Construction Details	3
CI 60	Building Codes I	3

SECOND SEMESTER

CI 50	Legal Factors of Construction Inspection	3
CI 65	Building Codes II	3

THIRD SEMESTER

CI 20	Inspection of Mechanical Construction	3
CI 80	Soils Engineering	3

FOURTH SEMESTER

CI 40	Electrical Inspection	3
CI 70	Inspection of Architectural Details and Structural Inspection	3
Total units		24

Recommended Elective: CI 90.

To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

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CONSTRUCTION MANAGEMENT**ASSOCIATE IN SCIENCE DEGREE
CAREER/TECHNICAL (MAJOR CODE: 02881)**

Designed to provide students with the necessary skills and knowledge for employment within the construction industry. The construction manager is an integral member of the building team and requires a broad range of professional knowledge in the areas of construction methods and materials, building codes, cost analysis and control, construction scheduling, and consulting with the design professions during initial planning stages of a building program. Areas in which graduates of this program might work include general contracting, project management for developers, facilities management, and design-and-build architecture firms.

Program Student Learning Outcome Statement

- Demonstrate an ability to apply problem solving strategies and integrate technical knowledge.

FIRST SEMESTER

ACCT 101	Principles of Accounting I	4
ARCH 115	Architectural Graphics	3
CI 90	Construction Quality Control Management	3

SECOND SEMESTER

ARCH 165	Architectural Practice I	2
ARCH 200	Introduction to Computer Aided Design	3
CI 60	Building Codes I	3

THIRD SEMESTER

ARCH 235	Structures	3
ARCH 265	Architectural Practice II	2
CI 80	Soils Engineering	3

FOURTH SEMESTER

ARCH 266	Architectural Practice III	2
BUS 140	Business Law/The Legal Environment of Business	3
CI 65	Building Codes II	3
Total units		36

Recommended Electives: ARCH 205, 222, 290–293, CI 70.



To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

CERTIFICATES

CONSTRUCTION INSPECTION

CERTIFICATE OF ACHIEVEMENT CAREER/TECHNICAL (MAJOR CODE: 02882)

Program Student Learning Outcome Statement

- Demonstrate the ability to apply problem solving strategies and integrate technical knowledge.

GAINFUL EMPLOYMENT:

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FIRST SEMESTER

CI 10	Building Plans and Construction Details	3
CI 60	Building Codes I	3

SECOND SEMESTER

CI 50	Legal Factors of Construction Inspection	3
CI 65	Building Codes II	3

THIRD SEMESTER

CI 20	Inspection of Mechanical Construction	3
CI 80	Soils Engineering	3

FOURTH SEMESTER

CI 40	Electrical Inspection	3
CI 70	Inspection of Architectural Details and Structural Inspection	3
Total units		24

CONSTRUCTION MANAGEMENT

CERTIFICATE OF ACHIEVEMENT CAREER/TECHNICAL (MAJOR CODE: 02883)

Program Student Learning Outcome Statement

- Demonstrate the ability to apply problem solving strategies and integrate technical knowledge.

GAINFUL EMPLOYMENT:

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Students who complete this program will have acquired the necessary analytical tools to successfully secure gainful employment in the field of study.

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FIRST SEMESTER

ACCT 101	Principles of Accounting I	4
ARCH 115	Graphic Communication for Architects and Designers	3
CI 90	Construction Quality Control Management	3

SECOND SEMESTER

ARCH 165	Architectural Practice I	3
ARCH 200	Introduction to Computer Aided Design	3
CI 60	Building Codes I	3

THIRD SEMESTER

ARCH 235	Structures	3
ARCH 265	Architectural Practice II	3
CI 80	Soils Engineering	3

FOURTH SEMESTER

ARCH 209	Construction Surveying	3
ARCH 266	Architectural Practice III	2
BUS 140	Business Law/The Legal Environment of Business	3
CI 65	Building Codes II	3

Total units **39**

