Required Courses

Course Prefix	Course Name	Units
BUSM 10	Principles of Continuous Quality Improvement	3
CHEM 20	Introductory Organic and Biochemistry	5
CHEM 50	General Chemistry I	5
or CHEM 50H	General Chemistry I - Honors	
CHEM 51	General Chemistry II	5
Choose six or seven units from the following:		6-7
MICR 22	Microbiology	
PHIL 12	Introduction to Ethics	
or PHIL 12H	Introduction to Ethics - Honors	
SPCH 26	Interpersonal Communication	
or SPCH 26H		
Total Units		**24-25**

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- use critical thinking to analyze and solve problems.
- troubleshoot experimental designs and outcomes.
- perform entry-level chemical technician duties such as chemical quality control, chemical process control, water quality, and R&D.

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html) for this program.

Architectural Design Concentration (AS Degree S0390)

Technology and Health Division
Degree S0390
This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to a professional school of architecture. The Design Concentration focuses upon studio-based design projects, drawing, and presentation skills. The student will develop a portfolio of work relevant to their concentration.

This degree requires the completion of General Education coursework plus the following:

Required Courses

Course Prefix	Course Name	Units
ARCH 101	Design I - Elements of Design	4
ARCH 102	Design II - Architectural Design	4
ARCH 121	CADD and Digital Design Media Level I	4
ARCH 122	Architectural Presentations	4
ARCH 142	Architectural Materials and Specifications	4
ARCH 180	Science Concepts for Sustainable Design and Environmental Control	3
ARCH 201	Design III - Environmental Design	4
ARCH 202	Design IV - Sustainable Design Advanced Project	4
ARCH 221	Architectural Rendering and Illustration	3
ARCH 222	Advanced Digital Media, Generative, and Algorithmic Design and Illustration	3
ARCH 280	Structural Design Level I	3
Total Units		**40**

ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

Architecture Website (http://www.mtsac.edu/architecture/)

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Successfully transfer to a four year university in a related major.
- Be employed or seeking employment in the field or in a related area.
- Present and evaluate the pros and cons of particular architectural design alternative solution.

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html) for this program.

Architectural Technology Concentration (AS Degree S0392)

Technology and Health Division
Degree S0392
This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to a professional school of architecture. The Technology Concentration focuses upon building and construction technology, documentation, codes, and computer applications. Current technology and computer (CAD) skills are integrated into the program.

This degree requires the completion of General Education coursework plus the following:

Required Courses

Course Prefix	Course Name	Units
ARCH 101	Design I - Elements of Design	4
ARCH 121	CADD and Digital Design Media Level I	4
ARCH 141	Design Drawing and Communication	4
ARCH 142	Architectural Materials and Specifications	4
ARCH 145	Building and Zoning Codes	3
ARCH 146	Architectural Drawings and Fabrications	3
ARCH 147	Architectural CAD and BIM	3
ARCH 247	Architectural CAD Working Drawings	3
ECT 26	Civil Engineering Technology and CADD	3
ECT 70	Elements of Construction Management	3
ECT 71	Construction Estimating	3
Total Units		**37**

An advanced MATH course and PHYS 2AG typically are required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.
Architecture Website (http://www.mtsac.edu/architecture/)

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Be employed or actively seeking employment in the field or a related field.
- Create design development and working drawing sets reflecting refined job skills in architectural CAD.