ARCHITECTURAL DRAFTING

DIPLOMA – 33 CREDITS

About this program

Students completing this program will be prepared for employment with architectural and engineering firms, contractors and various manufacturing and distribution companies related to the construction industry. Computer-aided drafting is an important tool for construction and design, and is an important part of the Architectural Drafting program. This program teaches students the principles of residential and commercial building technology, as well as the drafting skills to apply them.

Program outcomes

1. Analyze relationships between building systems in coordination with architectural drawings.
2. Create and present relevant design concepts.
3. Produce architectural construction drawings utilizing CAD software.

Curriculum overview

Crds	Requirement type
30	Required courses
3	Restricted electives in course types
33	**Total**

Developmental courses note: A student may be required to enroll in developmental courses in reading, writing and math. A student's scores on the Accuplacer assessment will determine enrollment in developmental courses. The purpose of developmental courses is to prepare students for the demands of a college-level curriculum. *Credits may vary.*

Accreditation: Minnesota State Community and Technical College is accredited by the Higher Learning Commission, a regional accreditation agency recognized by the U.S. Department of Education. The Higher Learning Commission 230 South LaSalle Street, Suite 7-500 Chicago, IL 60604-1411 http://www.ncahigherlearningcommission.org Phone: 312.263.0456 / 800.621.7440

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Curriculum requirement details

Required courses

Course	Crds
ARCH1126 - Residential Project I	3
ARCH2226 - Residential Project II	4
ARCH2250 - Project Administration	2
BLDG1114 - Blueprint Reading I	2
CADD1000 - AutoCAD Basics	3
CONM1108 - Principles of Estimating	4
CONM1124 - Building Systems	3
ENGL1101 - College Writing	3
ENGT1126 - Engineering Graphics	3
ENGT1134 - Office Systems and Equipment	3

Other requirements or restricted electives

3 credits from these Course Types:

- General Education w/MnTC Goals

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Course summaries

ARCH1126 - Residential Project I ..... ***(3 credits)***
This course covers the design development and documentation of single-family living. Students will be introduced to residential design styles as well as proper documentation methods.

Prerequisites:

- CADD1000
- ENGT1134

ARCH2226 - Residential Project II ..... ***(4 credits)***
This course introduces building design and construction requirements for multi-family housing. The course covers the processes for the selection of building materials and their integration into construction documents.

Prerequisites:

- ARCH1126

ARCH2250 - Project Administration ..... ***(2 credits)***
This course provides an understanding of architectural firm structures and legal issues as well as project management procedures used throughout documentation, bidding and construction administration.

Prerequisites:

- BLDG1114

BLDG1114 - Blueprint Reading I ..... ***(2 credits)***
This course provides the student with a working knowledge of blueprints and specifications. The student gains an understanding of blueprints, then interprets and applies this knowledge to job situations.

CADD1000 - AutoCAD Basics ..... ***(3 credits)***
This course provides the fundamentals of computer-aided drafting (CAD) using the latest version of the AutoCAD drafting software. The course develops the CAD skills necessary to design and print complex two-dimensional drawings and sheet sets.

CONM1108 - Principles of Estimating ..... ***(4 credits)***
This course focuses on the basics of material, labor and equipment estimating. Students learn to calculate the quantities of material comprising a project. These quantities determine the primary portion of the direct costs used in a construction bid. This process is the first step in completing accurate bids for construction projects of all sizes.

Prerequisites:

- BLDG1114

OR

- ARCH1126

OR

- CONM1101

CONM1124 - Building Systems ..... ***(3 credits)***
This course is a comprehensive treatment of the various techniques, systems and methodologies utilized in the construction industry and will help the student prepare for the responsibilities of supervision on a modern construction project.

ENGL1101 - College Writing ..... ***(3 credits)***
Meets MnTC Goal Area 1. This is an introductory course designed to prepare students for later college and career writing through a process approach with particular emphasis on revision. Students consider purpose and audience as they read, discuss and refine their work to develop confidence in their writing and communication skills.

Prerequisites:

- ELL1085
- ENGL0097
- or placement in College Level English.

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ENGT1126 - Engineering Graphics ..... ***(3 credits)***
This course introduces and develops basic skills in drawing, lettering, orthographic projection, sections and dimensioning. Students in this course will apply the basic fundamentals of pictorial drawing, including isometric, oblique, perspective, shade and shadow, and freehand sketching.

ENGT1134 - Office Systems and Equipment ..... ***(3 credits)***
This course covers the application of Windows software systems in coordination with AutoCAD software as well as general office equipment set-up and use.

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ARCHITECTURAL DRAFTING
DIPLOMA – 33 CREDITS

Program Plan — "Diploma"
Locations: Wadena

1st Fall Term (14 credits)

Courses

Course	Crds
BLDG1114 - Blueprint Reading I	2
CADD1000 - AutoCAD Basics	3
CONM1124 - Building Systems	3
ENGT1126 - Engineering Graphics	3
ENGT1134 - Office Systems and Equipment	3

1st Spring Term (19 credits)

Courses

Course	Crds
ARCH1126 - Residential Project I	3
ARCH2226 - Residential Project II	4
ARCH2250 - Project Administration	2
CONM1108 - Principles of Estimating	4
ENGL1101 - College Writing	3

3 credits in one or more of the following:

General Education w/MnTC Goals

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