



**South Central College
Program Design**

AAS 3496 Architectural Drafting and Design

Program Information

Instructional Level Associate Degree

Career Cluster Engineering, Manufacturing & Technology

Description

The Architectural Drafting and Design program prepares students for application of basic building design, engineering principles, and technical skills in support of architects, engineers, and planners engaged in designing and developing commercial and residential buildings.

Mission

The Architectural Drafting and Design program prepares students for application of basic building design, engineering principles, and technical skills in support of architects, engineers, and planners engaged in designing and developing commercial and residential buildings.

Program Admission Dates (Fall and/or Spring)

Fall and Spring

Program Location (North Mankato and/or Faribault)

North Mankato

Program Student Learning Outcomes

- 1 Create high-quality construction documents.
- 2 Solve design/detail problems using research.
- 3 Apply energy-related systems and assemblies to design projects.
- 4 Apply building industry standards.
- 5 Demonstrate proficiency in 2D and 3D drawing software.
- 6 Develop mastery of the industry software.
- 7 Apply industry standards to construction document creation.
- 8 Demonstrate knowledge of construction concepts and resources.
- 9 Establish knowledge of the Design and Construction industry.
- 10 Expand practice of support skills.

Program Configurations

Fall Start 25-26

Credits

Technical Course	45
Liberal Arts & Sciences	15
Total Credits	60

Semester 1

Course #	Course Title	Credits	Function
ARCH 1100	Introduction to Architectural Drafting and Design	1	Technical Course
ARCH 1101	Studio 1	4	Technical Course
ARCH 1102	AutoCAD Architecture	2	Technical Course
ARCH 1103	Materials & Methods 1	2	Technical Course
ARCH 1104	Construction Documents	2	Technical Course
ENGL 100	Composition	4	Liberal Arts & Sciences

Semester 2

Course #	Course Title	Credits	Function
ARCH 1201	Studio 2	4	Technical Course
ARCH 1202	Revit 1 Fundamentals	2	Technical Course
ARCH 1203	Materials & Methods 2	2	Technical Course
ARCH 1204	Building Codes	2	Technical Course
MATH 120	College Algebra	4	Liberal Arts & Sciences

Semester 3

Course #	Course Title	Credits	Function
ARCH 1301	Studio 3	4	Technical Course
ARCH 1302	Revit 2 BIM Management	2	Technical Course
ARCH 1303	MEP Integration	2	Technical Course
ARCH 1304	Construction Administration	2	Technical Course
MATH 125	Trigonometry	3	Liberal Arts & Sciences

Semester 4

Course #	Course Title	Credits	Function
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ARCH 1404	Statics and Strengths of Materials	3	Technical Course
LAS Electives	LAS Elective Credits from Goal Areas 2, 3, 5, 6, 7, 8, 9, or 10	4	Liberal Arts & Sciences
ARCH 1402	Architectural Visualization	3	Technical Course
ARCH 1400	Studio 4	5	Technical Course

Any Semester

Course #	Course Title	Credits	Function
ARCH 1500	Construction Experience	1	Technical Course
ARCH 1502	Internship	2	Technical Course

Program Course List

Number	Title	Credits	Pre/Corequisites
ARCH 1100	Introduction to Architectural Drafting and Design	1	None
ARCH 1101	Studio 1	4	None
ARCH 1102	AutoCAD Architecture	2	None
ARCH 1103	Materials & Methods 1	2	None
ARCH 1104	Construction Documents	2	
ARCH 1201	Studio 2	4	ARCH 1101 Studio 1 ARCH 1202 Revit 1 Fundamentals ARCH 1203 Materials & Methods 2
ARCH 1202	Revit 1 Fundamentals	2	ARCH 1101 Studio 1 ARCH 1201 Studio 2
ARCH 1203	Materials & Methods 2	2	ARCH 1103 Materials & Methods 1 ARCH 1201 Studio 2
ARCH 1204	Building Codes	2	
ARCH 1301	Studio 3	4	ARCH 1201 Studio 2 ARCH 1302 Revit 2 BIM Management
ARCH 1302	Revit 2 BIM Management	2	ARCH 1202 Revit 1 Fundamentals ARCH 1301 Studio 3
ARCH 1303	MEP Integration	2	ARCH 1201 Studio 2 ARCH 1202 Revit 1 Fundamentals
ARCH 1304	Construction Administration	2	ARCH 1201 Studio 2
ARCH 1400	Studio 4	5	ARCH 1301 Studio 3
ARCH 1404	Statics and Strengths of Materials	3	MATH 125 Trigonometry ARCH 1301 Studio 3
ARCH 1500	Construction Experience	1	none
ARCH 1502	Internship	2	ARCH 1101 Studio 1 ARCH 1201 Studio 2

			Advisor Approval
ARCH 1402	Architectural Visualization	3	ARCH 1301 Studio 3
ENGL 100	Composition	4	Next-Generation Accuplacer Reading minimum score of 250 (Classic Accuplacer, minimum of 75) or completion of READ 0090 or EAP 0095 with a C (2.0) or higher.
MATH 120	College Algebra	4	At least one of the following conditions must be met for enrollment in Math 120: Corequisite enrollment in Math 0098 Completion of Math 0098 with a grade of C or higher Completion of Math 0085 with a grade of C or higher Completion of Math 0095 with a grade of C or higher Accuplacer score 56+ Arithmetic AND 76+ in Elementary Algebra AND 50+ in College Math Next Gen Accuplacer score 250-300 AAF ACT Math score 22-36 MCA score 1158-1164
MATH 125	Trigonometry	3	MATH 120 with a grade of C or better or a score of 63 or above on the College Level Mathematics portion of the Accuplacer test.