Architectural Modeling and Design Technology

Degree Type
Associate in Applied Science

Contact Information

Randy Stach, department chair
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Horton Hall 240

Delivery Methods

Face-to-Face: Wahpeton
Some Classes Available
Online

The Architectural Modeling and Design Technology program is designed to prepare students for work as technicians in construction-related industries, allowing graduates to work in a broad range of jobs, such as drafting, revit modeling, estimating, sales, construction management and project coordination. General contractors, subcontractors, home builders, architectural and engineering firms, material suppliers, steel fabricators, manufacturers and building centers all have specific areas of employment for graduates of this program.

Students are provided with classroom and laboratory experiences emphasizing computer-aided drafting (CAD) and Building Information Modeling (BIM) utilizing AutoDesk Revit software for residential and commercial buildings, estimating, structural design, mechanical and electrical systems for buildings, presentation techniques and remodeling. Students will take courses in communications, technical mathematics and business, which will provide them with career-advancing skills.

While students are fully employable upon completion of this program, some may wish to return for an additional year and earn a second major in Construction Management Technology. This program also provides transfer options to four-year colleges and universities in related fields.

Green and/or sustainable construction is specifically covered in multiple courses. Leadership in Energy and Environmental Design (LEED) certification is covered extensively. Green/sustainable construction is also discussed across the rest of the curriculum.

NOTE: This program requires a ZBOOK Laptop or equivalent. Please refer to the NDSCS website for specifications. if purchased through NDSCS. For further information, call Randy Stach, department chair, at 701-671-2116.

Admission Requirements*

The applicants must be high school graduates or equivalent. Students considered for acceptance must complete all admission requirements.

Please Note: Students are placed into English, math and reading courses based on ACT, ACCUPLACER or other nationally recognized tests. Please see www.NDSCS.edu/current-students/student-success/test-center for the NDSCS Course Placement Policy and testing information. Students may be on an extended plan of study pending their course placement.

**Program Admission Requirements are subject to revision. Please check the department or program website under Program Admission Requirements for current information.*

Award

Upon successful completion of the required courses, students will be awarded an Associate in Applied Science degree in Architectural Modeling and Design Technology.

Required Courses

Course Code	Title	Credits
ARCT 101	Architectural Modeling I	3
ARCT 102	Architectural Modeling II	4
ARCT 110	Graphic Communications	3
ARCT 121	Revit Architecture	2
ARCT 122	Structural Modeling	2
ARCT 131	Construction Methods and Materials I	3
CMT 144	Construction Estimating I	3
ARCT 152	MEP Modeling	2
ARCT 162	Construction Experience	2
ARCT 201	Architectural Modeling III	4
ARCT 202	Architectural Modeling IV	4
ARCT 212	Architectural Presentations	2
ARCT 214	Architectural Portfolio	1
ARCT 221	Structural Detailing	3
ARCT 223	Renovation and Design	3
ARCT 231	Construction Methods and Materials II	3
	ARCT 120 or CAD 120	2
ARCT 297	Cooperative Education	1
ARCT 225	Mechanical and Electrical Systems	2

Business/Technical Elective

(choose one/2 credit minimum)

Course Code	Title	Credits
BADM 240	Sales	3
BUSN 120	Fundamentals of Business	3
CMT 165	Residential Project Experience	1
CMT 251	Construction Documents and Specifications	3
CMT 253	Construction Scheduling	3
CMT 265	Residential Project Experience	1
UAS 111	Introduction to UAS	2
UAS 112	Unmanned Aircraft Systems Certification	2

Related/General Education Courses

Course Code	Title	Credits
ENGL 110	College Composition I	3
	English/Communication Elective (choose one)	3
MATH 130	Technical Math	2
MATH 132	Technical Algebra I	2
MATH 136	Technical Trigonometry	2
	Wellness Elective(s) (2 credits)	2
FYE 101	Science of Success	1
	Social and Behavioral Sciences, Humanities, History and/or Computer Electives (4 credits)	4

Recommended:

Course Code	Title	Credits
CSCI 116	Business Use of Computers	3
PSYC 100	Human Relations in Organizations	2
	Total Required Credits	**70**