Architectural Drafting and Estimating Technology

Contact Information
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Horton Hall 240

The Architectural Drafting and Estimating 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, 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 the purchase of a notebook computer. The cost will be approximately $1,900. 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.

Required minimum placement scores:

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<th>ACT</th>
<th>ACCUPLACER</th>
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<tbody>
<tr>
<td>Reading</td>
<td>Reading Comp</td>
<td>NEXT GENERATION</td>
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<tr>
<td>English</td>
<td>WritePlace</td>
<td>Reading - 240</td>
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<tr>
<td>Math</td>
<td>Arithmetic</td>
<td>Writing - 237</td>
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<td></td>
<td>Elementary</td>
<td>QAS - 232</td>
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<td>Algebra</td>
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Or transfer equivalencies will apply as appropriate

Applicants not meeting the above requirements are encouraged to visit with the academic counselor at 701-671-2257 or the Construction and Design Technology department chair at 701-671-2116 for strategies to meet the admission requirements.

*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 Drafting and Estimating Technology.

Delivery Methods
Face-to-Face: Wahpeton
Some Classes Available
Online

Course Code | Course Title                        | Credits |
------------|-------------------------------------|---------|
ARCT 101   | Architectural Drafting I            | 3       |
ARCT 102   | Architectural Drafting II           | 5       |
ARCT 110   | Graphic Communications              | 3       |
ARCT 121   | Revit Architecture                  | 2       |
ARCT 133   | Residential Methods and Materials   | 2       |
ARCT 144   | Construction Estimating I           | 3       |
ARCT 201   | Architectural Drafting III          | 4       |
ARCT 202   | Architectural Drafting IV           | 4       |
ARCT 212   | Architectural Presentation          | 3       |
ARCT 223   | Renovation and Design               | 3       |
ARCT 231   | Commercial Methods and Materials    | 3       |
ARCT 234   | Structural Steel Detailing I        | 3       |
ARCT 241   | Construction Estimating II          | 3       |
ARCT 242   | Construction Estimating III         | 3       |
ARCT 120   | AutoCAD for Architecture            | 3       |
         | or CAD 120 Introduction to AutoCAD   | 3       |
         | (CUM 225 Mechanical and Electrical Systems | 2       |

Business/Technical Elective (choose one/2 credit minimum)
ARCT 297   | Cooperative Education (2)          |         |
BADM 240   | Sales (3)                          |         |
BCT 222    | Construction Safety (2)            |         |
BUSN 120   | Fundamentals of Business (3)       |         |
CMT 130    | Green Building Fundamentals (2)    |         |
CMT 165    | Residential and Project Experience (1) |         |
CMT 251    | Construction Documents and Specifications (3) | |
CMT 265    | Residential Project Experience (1) |         |
UAS 111    | Introduction to UAS (2)            |         |
UAS 112    | Unmanned Aircraft Systems Certification (1) |         |

Related/General Education Courses
ENGL 110   | College Composition I              | 3       |
English/Communication Elective (choose one) | 3 |
ENGL 105   | Technical Communications            |         |
ENGL 120   | College Composition II              |         |
ENGL 125   | Introduction to Professional Writing|         |
COMM 110   | Fundamentals of Public Speaking     |         |
MATH 130   | Technical Mathematics               | 2       |
MATH 132   | Technical Algebra I                 | 2       |
MATH 136   | Technical Trigonometry              | 2       |
Wellness Elective(s) (2)
FYE 101    | Science of Success                  | 1       |
Social and Behavioral Sciences, Humanities, History and/or Computer Electives (4
Recommended:
• CSCI 116 – Business Use of Computers – 3 cr
• PSYC 100 – Human Relations in Organizations – 2 cr

Total Required Credits 70

Revised: September 2019