

2018-2019

SOUTHEAST
COMMUNITY
COLLEGE
NEBRASKA

DESIGN & DRAFTING TECHNOLOGY

Associate of
Applied Science
Degree

Diploma

Certificate

LINCOLN AND MILFORD CAMPUSES

www.southeast.edu/DesignDraftingTechnology



Architectural design is the creation of construction documents for residential and commercial structures through the use of Building Information Modeling designs. Computer Aided Design Drafting is communication through the use of graphic representation and creation of 3-D designs. Our program combines computer aided drafting and architectural design to give students options toward their career.



ARCHITECTURAL DESIGN FOCUS

prepares the student for employment in a variety of exciting and rewarding areas of the architectural and engineering fields. Students focus on the design and construction methods used in residential and commercial buildings. Within this focus, students enter the workforce as

Structural Engineering Technicians, Mechanical Systems Engineering Technicians, Architectural Design Technicians, Electrical Systems Engineering Technicians, as well as Construction Estimators.

COMPUTER AIDED DESIGN DRAFTING

FOCUS takes a holistic approach to learning design techniques as they apply to a variety of industry applications. Students utilize state-of-the-art tools and technology to perform multiple methods and techniques in various areas of design, which will serve as valuable experience in directing their decision regarding which area of industry they may have an interest/preference upon graduation. Within this focus, students enter the workforce as Engineering Technicians, Product Designers, Revit Technician, BIM/VDC Coordinator, CAD Designer, as well as a Design Engineer.



Core classes are offered on both the Lincoln and Milford campuses.

The Architectural Design focus admits new students in the Summer (July) quarter at the Milford Campus.

The Computer Aided Design Drafting focus admits new students in the Fall (October) and Spring (April) quarters at the Lincoln Campus.

Recent graduates were hired as:

- Architectural Drafter
- CAD Drafter
- Civil BIM Technician
- Design Technician III
- Designer
- Drafter
- Electrical Engineering Drafter
- Steel Detailer
- Structural Technician

Graduate Earnings

Recent graduates report an average starting wage of \$17.15 per hour.

For more information contact:

Architectural Design focus
Paul Buell, Program Chair - Milford
402-761-8351, 800-933-7223 ext. 8351
pbuell@southeast.edu

Computer Aided Design Drafting focus
Dave Zachek, Program Chair- Lincoln
402-437-2651, 800-642-4075 ext. 2651
dzachek@southeast.edu

or the College Admissions Office
Lincoln 402-437-2600, 800-642-4075 ext. 2600
Milford 402-761-8243, 800-933-7223 ext. 8243

General Education Requirements:

SCC Core General Education Learning Outcomes (GELOs)
See the General Education pages online for a complete list.

Oral Communications	4.5
Written Communications	4.5
Critical Thinking & Problem Solving	4.5
MATH1050 (or higher) (Recommended)	
Complete two additional classes from the three areas below; no two classes from the same area	
Global Awareness and Citizenship	
Analytical, Quantitative, and Scientific Reasoning	
Career and Life Skills	9.0
Total General Education - 22.5 Credit Hours	

Core Design & Drafting Technology Courses

The core Design & Drafting Technology courses provide a base line of common technical knowledge and skills for students to succeed in a wide variety of career fields.

Course #	Course title	Credit hrs.
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1400	Virtual Building Design with Revit	4.0
DDRT1230	Print Reading	3.5
DDRT1310	3-D Visualization	3.0
DDRT1340	Strengths of Materials	4.0
DDRT1350	Estimating for Light Construction	3.5
DDRT2540	Building Safety & Design	4.5
DDRT1170	Light Construction Materials & Methods	4.0
DDRT2901	Cooperative Experience Drafting I	5.0
		35.5 hours

Architectural Design Focus

The Architectural Design Focus expands on the core courses to provide additional training in design and construction methods used in residential and commercial buildings.

Course #	Course title	Credit hrs.
DDRT1250	Plumbing System Theory & Design	6.0
DDRT1207	Heating & Air Conditioning Systems I	3.5
DDRT1320	Heating & Air Conditioning Systems II	6.0
DDRT1420	Advanced Mechanical Systems Theory & Drafting	6.0
DDRT2750	Electrical Systems Theory & Drafting	6.0
DDRT2839	Commercial Estimating	3.5
DDRT2530	Steel Systems Design & Drafting	6.0
DDRT2546	Site Planning & Surveying	3.0
DDRT2660	Concrete & Wood Systems Design & Drafting	6.0
DDRT1338	Residential Design & Drafting	4.0
DDRT2650	Fundamentals of Commercial Architecture	7.5
		57.5 hours

Computer Aided Design Drafting Focus

The Computer Aided Design Drafting Focus expands on core courses to provide additional training in design techniques as they apply to a variety of industry applications.

Course #	Course title	Credit hrs.
DDRT1110	Industrial Print Reading	3.0
DDRT1220	Inventor	3.0
DDRT1224	3-D Civil CAD	3.0
DDRT1330	Solid Works	3.0
DDRT1500	Advanced Virtual Building Design w/Revit	4.0
DDRT2110	Architectural Design	3.0
DDRT2150	Structural Steel Design w/SDS/2	3.0
DDRT2130	Industrial Plastics	3.0
DDRT2180	Professional Practice-Architectural	3.0
DDRT2200	Geometric Dimensioning & Tolerancing	3.0
DDRT2210	Engineering Processes	3.0
DDRT2215	Plastic Part Design	3.0
DDRT2220	Flat Pattern Design	3.0
DDRT2230	Design Concepts	3.0
DDRT2240	Consumer Product Design	3.0
DDRT2260	Jigs & Fixture Design	3.0
DDRT2140	Building Utility Design	5.0
		54.0 hours



Diplomas

Architectural Diploma Courses:

Course #	Course title	Credit hrs.
DDRT1170	Light Construction Materials & Methods	4.0
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1207	Heating & Air Conditioning Systems I	3.5
DDRT1230	Print Reading	3.5
DDRT1350	Estimating for Light Construction	3.5
DDRT2540	Building Safety & Design	4.5
DDRT2546	Site Planning & Surveying	3.0
DDRT2650	Fundamentals of Commercial Architecture	7.5
DDRT2839	Commercial Estimating	3.5
		Diploma Credits 37.0
		General Education Courses 9.0
		Total Credits 46.0

Mechanical/Electrical Diploma Courses:

Course #	Course title	Credit hrs.
DDRT1170	Light Construction Materials & Methods	4.0
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1207	Heating & Air Conditioning Systems I	3.5
DDRT1230	Print Reading	3.5
DDRT1250	Plumbing Systems Theory and Drafting	6.0
DDRT1320	Heating and Air Conditioning Systems II	6.0
DDRT1420	Advanced Mechanical Systems Theory & Drafting	6.0
DDRT2750	Electrical Systems Theory and Drafting	6.0
		Diploma Credits 39.0
		General Education Courses 9.0
		Total Credits 48.0

Residential Design Diploma Courses:

Course #	Course title	Credit hrs.
DDRT1170	Light Construction Materials & Methods	4.0
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1207	Heating & Air Conditioning Systems I	3.5
DDRT1230	Print Reading	3.5
DDRT1310	3-D Visualization	3.0
DDRT1350	Estimating for Light Construction	3.5
DDRT1338	Residential Design and Drafting	4.0
DDRT1400	Virtual Building Design w/Revit	4.0
DDRT2540	Building Safety & Design	4.5
DDRT2546	Site Planning & Surveying	3.0
		Diploma Credits 37.0
		General Education Courses 9.0
		Total Credits 46.0

Structural Diploma Courses:

(Classes have to be taken on both the Lincoln and Milford Campuses)

Course #	Course title	Credit hrs.
DDRT1170	Light Construction Materials & Methods	4.0
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1310	3-D Visualization	3.0
DDRT1340	Strength of Materials	4.0
DDRT1400	Virtual Building Design w/Revit	4.0
DDRT2150	Structural Steel Design with SDS/2	3.0
DDRT2530	Steel Systems Design and Drafting	6.0
DDRT2660	Concrete and Wood Systems Design & Drafting	6.0
		Diploma Credits 34.0
		General Education Courses 9.0
		Total Credits 43.0

Certificates

Designing Software Certificate Courses:

Course #	Course title	Credit hrs.
DDRT1220	Inventor	3.0
DDRT1224	3-D Civil CAD	3.0
DDRT1310	3-D Visualization	3.0
DDRT1330	Solid Works	3.0
DDRT1400	Virtual Building Design w/Revit	4.0
DDRT1500	Advanced Virtual Building Design w/Revit	4.0
DDRT2140	Building Utility Design	5.0
DDRT2150	Structural Design with SDS/2	3.0
		Certificate Credits 28.0
		General Education Courses 4.5
		Total Credits 32.5

Residential Design Certificate Courses:

Course #	Course title	Credit hrs.
DDRT1170	Light Construction Materials & Methods	4.0
DDRT1120	Basic Computer Aided Drafting	4.0
DDRT1207	Heating & Air Conditioning Systems I	3.5
DDRT1230	Print Reading	3.5
DDRT1350	Estimating for Light Construction	3.5
DDRT1338	Residential Design and Drafting	4.0
		Certificate Credits 22.5
		General Education Courses 4.5
		Total Credits 27.0



Estimated Expenses

Nebraska Resident tuition/fee rate is \$69.50 per credit hour. Out-of-state tuition/fee rate is \$83.50 per credit hour. Graduation fee is \$25.

Housing is available at Beatrice and Milford campuses only. Tuition, books and fees are dependent upon classes taken each quarter.

Students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

A.A.S. DEGREE

Based on 115.5 credit hours at 15 credit hours per quarter, will take approx. 8 quarters to complete.

Tuition & Fees	\$8,027
Books	3352
Total for Focus	\$11,379

DIPLOMA

Based on 48 credit hours at 15 credit hours per quarter, will take approx. 4 quarters to complete.

Tuition & Fees	\$3,336
Books	858
Total for Diploma	\$4,194

CERTIFICATE

Based on 32.5 credit hours at 15 credit hours per quarter, will take approx. 2 quarters to complete.

Tuition & Fees	\$2,259
Books	744
Total for Certificate	\$3,003

Additional supplies

Architecture Design	\$10
Computer Aided Design Drafting	\$240