

Program Overview

The Architectural Commercial Design program will prepare you to translate the ideas, rough sketches, specifications, and calculations of engineers, architects, and designers into commercial and residential working drawings. Our program emphasizes construction techniques and materials used in commercial building design.

Offered at:

Rice Lake



Special Features

This program is unique in the state.

Student Profile

As an Architectural Commercial Design student, you should:

- Possess some mathematical and science background
- Enjoy the application of problem solving involved in building design
- Possess the desire to assume responsibility
- Be able to work well with others

Preparation for Admission

The following experiences will help you prepare for this program:

- Mechanical Drawing
- Architectural Drawing
- Algebra
- General Science
- Physics
- Art
- Communications/English
- Geometry
- Trigonometry
- Computer knowledge

Program Outcomes

Employers will expect you, as an Architectural Commercial Design graduate, to be able to:

- Draw and detail buildings.
- Apply construction knowledge to develop working drawings.
- Detail construction connections.
- Research product information.
- Utilize the Wisconsin Enrolled Commercial Building Code.
- Apply a working knowledge of heating, plumbing, electrical, and other mechanical systems within a building.
- Use computer-aided drafting and architectural-related software.
- Explain office practices, standards, and career options.

Career Outlook

This program will prepare you to work in both residential and commercial construction. Positions available to you after graduation include:

- CAD Technician
- Architectural Commercial Design Technician
- Civil Drafter
- Commercial Drafter
- Heating and Ventilating Drafter
- Plumbing Drafter
- Shop Drawing/Detail Drafter

Curriculum

Number	Course Title	Credits
Technical Studies Courses		
10410121	Wood Frame Construction	4
10614101	Architectural Drafting Principles ▲	4
10614103	Wood Frame Drafting/Design ▲	4
10614105	Commercial Drafting ▲	4
10614110	Architectural Drafting Studio (WBL) ▲	5
10614111	Plumbing and Electrical Systems ▲	1
10614124	Commercial Construction ▲	3
10614125	Topographic Science ▲	3
10614129	Building Estimating ▲	3
10614135	Architectural CAD	3
10614136	Introduction to Architectural Desktop ▲	1
10614139	Heating, Ventilating, and Air Conditioning Systems ▲	1
10614153	Structural Design	3
10890100	Success Strategies 1	1
10890105	Job Quest	1
		41
General Studies Courses		
10801195	Written Communication ♦	3
10801196	Oral/Interpersonal Communication or	3
10801198	Speech	3
10804113	College Technical Mathematics 1A	3
10804114	College Technical Mathematics 1B ▲	2
10804116	College Technical Mathematics 2 ▲	4
10809172	Race, Ethnic, and Diversity Studies	3
10809198	Introduction to Psychology or	3
10809199	Psychology of Human Relations	3
		21
	ELECTIVES	3
	PROGRAM REQUIREMENTS	65

▲ This course requires a prerequisite and/or corequisite, and must be completed with a grade of "C-" or better.

♦ Appropriate placement score or Introduction to College Writing course required.

Course Descriptions

10410121

Wood Frame Construction - Credits: 4

This course introduces the student to the materials and methods used in wood frame construction. It familiarizes students with components of modern construction for the purpose of selecting the materials best suited to various construction jobs.

10614101

Architectural Drafting Principles - Credits: 4

This course introduces graphic representation in construction. It covers the fundamentals of drafting including line work, lettering, measuring, sketching, projections, and pictorial drawings. Students will use the aforementioned fundamentals to complete a set of drawings for a residence. COREQUISITE: 10614135 Architectural CAD.

10614103

Wood Frame Drafting/Design - Credits: 4

This course introduces the student to the design principles needed for wood frame structures and incorporates the many aspects of building aesthetics and working drawings. The final assignment is to plan a set of drawings for a wood frame commercial building. PREREQUISITE: 10614101 Architectural Drafting Principles.

10614105

Commercial Drafting - Credits: 4

This course introduces the student to commercial building terminology, materials, methods of construction, and the codes governing their design. Students complete a series of building wall sections and a set of drawings for a concrete masonry building. PREREQUISITES: 10410121 Wood Frame Construction, 10614103 Wood Frame Drafting/Design, and COREQUISITE: 10614124 Commercial Construction.

10614110

Architectural Drafting Studio (WBL) - Credits: 5

This final semester course is designed to prepare the student for the challenges of working in an architectural office. The major portion of the course is the preparation of a set of architectural working drawings for a commercial building. The course also includes architectural office orientation, specifications, architectural group projects, and commercial building planning considerations as well as several activities directed toward successful job-hunting skills. PREREQUISITE: 10614105 Commercial Drafting.

10614111

Plumbing and Electrical Systems - Credits: 1

Technical-level design of plumbing and electrical systems is studied including the materials and equipment required for their installation. PREREQUISITE: 10614101 Architectural Drafting Principles.

10614124

Commercial Construction - Credits: 3

This course introduces the student to the commercial phase of the building spectrum with applications to steel, concrete, and heavy timber structures. Methods and practices utilized in buildings consisting of the various materials and combinations of materials are covered. PREREQUISITE: 10410121 Wood Frame Construction.

10614125

Topographic Science - Credits: 3

The course emphasizes the "in office" aspects of surveying. Fundamentals of surveying and uses of equipment are included with concentration on the utilization of field information for architectural drawings. The lab portion of the course includes field applications as well as drafting room experiences. PREREQUISITES: 10614101 Architectural Drafting Principles and 10804116 College Technical Mathematics 2.

10614129

Building Estimating - Credits: 3

This course introduces the student to the basic methods of building estimating and systems for doing quantity surveys. Emphasis is placed on developing the skills received in preparing the kinds of estimates commonly used in architecture and building construction. Practical exercises in developing estimates for wood frame and light commercial structure are included in the course of study. PREREQUISITE: 10410121 Wood Frame Construction.

10614135

Architectural CAD - Credits: 3

AutoCAD and related architectural software is utilized to teach learners the fundamentals of architectural computer-aided drafting. Topics from CAD applications in architecture and the equipment required to do actual drafting, modifying, and plotting operations are covered.

10614136

Introduction to Architectural Desktop - Credits: 1

This course is an introduction to the application of 3D software in architectural drafting. Students will apply Architectural Desktop software to draw a floor plan, generate building sections, exterior elevations and schedules, and create a video walk-through. PREREQUISITE: 10614135 Architectural CAD and COREQUISITE: 10614103 Wood Frame Drafting and Design.

10614139

Heating, Ventilating, and Air Conditioning Systems - Credits: 1

The target population is primarily students in the Architectural Commercial Design program that are following the two-year technical diploma. Anyone in the building trades that has a drafting background could take this course to further their education and expertise in the HVAC field. PREREQUISITE: Architectural Drafting Principles.

10614153

Structural Design - Credits: 3

Basic concepts of design as applied to steel and timber beams and columns, as well as concrete bases, slabs, columns, and foundations are developed. Emphasis is on developing a sound conception of the related problems faced by the architect, contractor, construction superintendent, and distributors in planning and erecting buildings.

10890100

Success Strategies 1 - Credits: 1

This course is designed to facilitate greater learner success affecting the academic, professional, and personal lives of students.

10890105

Job Quest - Credits: 1

This course is designed to enhance the student's ability to seek, obtain, and retain employment. Assessment of personal characteristics, job-seeking and retention skills, preparation of employment-related documents, and interviewing strategies are included.

Graduate Employment Information

(WITC Graduate Survey Responses 2005-2006)

Number of graduates	7	Number employed	6	% employed in WITC district	20%
Number of responses	7	Percent employed	100%	Range of yearly salary	\$20,798-\$35,357
Number available for employment	6	Employed in related field	5	Average yearly salary	\$29,373

career vision