

BUILDING CONSTRUCTION (BC)

BC 1XXX. Building Construction Elective. 1-21 Credit Hours.

BC 2610. Construction Technology I. 3 Credit Hours.

An introduction to the planning and physical development process for the construction of projects of residential and light construction scale.

BC 2620. Construction Technology II. 3 Credit Hours.

A continuation of Construction Technology I with an emphasis on large-scale and high-rise building, i.e., commercial building construction.

BC 2631. Introduction to Construction Management. 2 Credit Hours.

Provides an introduction to the construction industry with emphasis on exploring career opportunities in construction.

BC 2632. Construction Materials and Methods. 3 Credit Hours.

The course will cover the planning and physical development process for the construction of residential, commercial and heavy/industrial projects.

BC 2634. Construction Plans and Estimates. 3 Credit Hours.

Course focuses on reading and accessing project drawing information, and estimating quantities for pricing of materials, labor, subcontracts and equipment.

BC 2636. Construction Safety. 3 Credit Hours.

This course introduces the core elements of an effective safety and health management system in a construction project, and describes the application of OSHA standards.

BC 2698. Undergraduate Research Assistantship. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

BC 2699. Undergraduate Research. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

BC 2XXX. Building Construction Elective. 1-21 Credit Hours.

BC 3600. Construction Cost Management. 3 Credit Hours.

Introduction to cost principles and cost analysis of construction projects, including classification of work, quantity survey techniques, construction operation costs, and bid proposals.

BC 3610. Construction Law. 3 Credit Hours.

Legal aspects of construction contracts, bonds, insurance, and bidding. Owner, architect, contractor, and subcontractor relationships.

BC 3620. Real Estate and Construction Finance and Accounting. 3 Credit Hours.

General introduction to the financing of construction and real estate development projects. Emphasis on financing requirements, activities, sources, and uses.

BC 3630. Project Management I. 3 Credit Hours.

This course will offer construction planning and management techniques for project design and construction with a focus on different scheduling methods and their use.

BC 3640. Construction Mechanics. 3 Credit Hours.

An introductory course to the evaluation of behavior of buildings, the properties of structural materials, and the behavior of load-resisting members.

BC 3XXX. Building Construction Elective. 1-21 Credit Hours.

BC 4010. History of Construction Industry. 3 Credit Hours.

Addresses how today's construction industry is organized and its particular characteristics, how it evolved from early times and where it may be heading in the future.

BC 4050. Building Information Modeling for Multi-disciplinary Integration. 3 Credit Hours.

This course introduces students to BIM and the changes it has been causing to the traditional design, planning, management, construction, facility management, and contracting practices.

BC 4110. Trends & Pol For Res Dev. 3 Credit Hours.

An overview of development in the United States, current trends in residential development, and the impact of external factors on residential development. This course is designed to help Building Construction students understand how their development impacts the social environment and quality of life of the community.

BC 4120. Community Dsgn & Constr. 3 Credit Hours.

An overview of the principles of smart growth, livable communities and new urbanism and how these principles are implemented in the process from design to construction and marketing.

BC 4130. Intg Design Constr & Dev. 3 Credit Hours.

A study of contemporary examples of an integrated approach to design, construction and development. Course involves real-world project analysis from multiple points of view.

BC 4140. Construction Management Project. 3 Credit Hours.

This class is the application of course materials covered throughout the Certificate in Construction Management to an actual construction project with a simulated business construct.

BC 4270. Sustainable Community Design and Construction. 3 Credit Hours.

An overview of the principles of smart growth, livable communities, and new urbanism and how these principles are implemented in the process from design to construction and marketing.

BC 4600. Project Management II. 3 Credit Hours.

This course covers practical project management, technology, and tools for this approach and the required management skills for successful execution of projects.

BC 4610. Value Engineering and Building Economics. 3 Credit Hours.

First part is an introduction to principles and methodology. Second part is an introduction to economic principles and theories and how to apply the concepts and methods of building economics.

BC 4620. Building Structural Analysis. 3 Credit Hours.

Emphasis being placed on the practical design and construction of structural elements. The course includes basic design principles with a heavy emphasis on constructability and buildability.

BC 4630. Senior Capstone Project. 3 Credit Hours.

A senior construction project that includes redevelopment analysis and feasibility study, project development, and construction.

BC 4640. Construction Marketing. 3 Credit Hours.

Methods of construction marketing and business development. Innovative computer applications, verbal skills development, professional strategies, market segmentation, and buyer behavior.

BC 4650. Laboratory for Sustainable Design and Construction. 3 Credit Hours.

The goal of the laboratory is to teach students a comprehensive sustainable design and construction information system and a program of real-world, hands-on projects.

BC 4660. Entrepreneurship in Construction. 3 Credit Hours.

Basics of construction business risk assessment, looking for construction opportunities, capital investment, computerized construction business, and business failures.

BC 4672. Mechanical, Electrical and Plumbing Systems for Construction Managers. 3 Credit Hours.

This course covers the fundamentals of mechanical, electrical, and plumbing contracting, including terminology, components, and basic design features of HVAC systems; plumbing systems; and electrical circuits and service equipment. It also encompasses the presentation of current mechanical, electrical, and plumbing drawings, specifications, and building codes.

BC 4680. Professional Internship. 3 Credit Hours.

Students work for a professional architecture/engineering/ construction company in which they learn, first-hand, about the construction industry.

BC 4698. Undergraduate Research Assistantship. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

BC 4699. Undergraduate Research. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

BC 4700. Construction Management. 3 Credit Hours.

An accelerated-pace course designed to provide a basic understanding of fundamental topics including planning, budgeting, estimation, scheduling, and project close out.

BC 4710. Green Construction. 3 Credit Hours.

This course focuses on the means, methods, strategies, and technologies to improve the energy efficiency and performance of buildings, and to reduce the environmental impact of buildings.

BC 4720. Residential Construction and Property Management. 3 Credit Hours.

A course designed to orient students to the basics of apartment management and includes the business functions of marketing, leasing, and financing.

BC 4730. Best Practices in Multi-Family Property. 3 Credit Hours.

A course designed to provide students with a broad range of the best practices related to the management of all types of multi-family residential property.

BC 4735. Real Estate Development and Construction. 3 Credit Hours.

Provides an overview of the real estate development process as it pertains to construction development including trends and current issues.

BC 4801. Special Topics. 1 Credit Hour.

BC 4802. Special Topics. 2 Credit Hours.

BC 4803. Special Topics. 3 Credit Hours.

BC 4823. Special Topics. 3 Credit Hours.

BC 4833. Special Topics. 3 Credit Hours.

BC 4843. Special Topics. 3 Credit Hours.

Topics of current interest in building construction.

BC 4900. Special Problems. 1-21 Credit Hours.

BC 4XXX. Building Construction Elective. 1-21 Credit Hours.