BCN: Building Construction Courses

Courses

BCN 2210 Construction Materials
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

This course offers an introduction to the economic, mechanical, non-mechanical, production, and aesthetic considerations of materials currently used in construction in accordance with the 16 divisions of the Construction Specifications Institute. The course explores changing materials, methods and technologies in construction, and focuses on the most common and practical building materials and methods to provide students with knowledge, skills and abilities related to the "means and methods" of construction.

BCN 2251C Construction Drawings
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Provides basic working knowledge of architectural graphics, practice in instrumental drawing and experience in free hand sketching. Provides students with knowledge, skills and abilities to accurately interpret commercial construction documents. Addresses standards for construction drawings, drawing quality, drafting techniques and drawing literacy and information retrieval.

BCN 2272 Blueprint Reading
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Provides students with knowledge, skills and abilities to accurately interpret commercial construction documents. Addresses standards for construction drawings, drawing quality, drafting techniques and drawing literacy and information retrieval.

BCN 2405 Statics and Strength of Materials
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: MAC 1114 AND PHY 2053

Analyze strength of structural elements for buildings, bridges and specialized structures that utilize steel and timber and concrete. Covers the statics of particles, rigid bodies, friction, strengths of materials such as wood, steel and concrete.

BCN 2905 Directed Study
College of Ed and Prof Studies, Department of Administration and Law

1-12 sh (may be repeated indefinitely for credit)

BCN 3224 Construction Materials and Method
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Explores changing materials, methods and technologies in construction. Focuses on the most common and practical building materials and methods to provide students with knowledge, skills and abilities related to the "means and methods" of construction.

BCN 3281C Construction Survey and Building Layout
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: MAC 1114 OR MAC 2233 OR MAC 2311

Application of surveying skills required in the field of construction, including building layout, indirect determination of elevation and distance, referencing, establishment of grade, and topographic mapping. Instruments used will include transit and automatic level. Credit cannot be received for both BCN 3281C and BCN 3282C.

BCN 3561 Construction Mechanics
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Introduction to building systems. Areas of study included in this course are heating and cooling, plumbing, and electrical systems.

BCN 3590 Sustainable Construction
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Provides an overview of Sustainable Construction, the basic philosophical premises and concepts, the cutting edge in design and construction, methods of assessment, project delivery, economics, and green building evaluation systems, such as LEED and Green Globes. Students will learn the importance of sustainable construction and the emergence of green building concepts in the construction industry. Focuses on concepts and learning to facilitate application in real-world scenarios.

BCN 3731 Construction Safety
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Addresses the principles of safety in construction and project management. Focuses on the OSHA 29 CFR 1926 Construction Industry Regulations, construction site risk aversion, insurance, site specific paperwork and documentation, maintenance of traffic, cost, scheduling and job hazard analysis.

BCN 3762 Building Codes
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Covers the general requirements of the Florida Building Code for commercial construction, based on occupancy classification and construction type. Provides information about code agencies, organizations and resources related to the building construction approval process.

BCN 3905 Directed Study
College of Ed and Prof Studies, Department of Administration and Law

1-12 sh (may be repeated indefinitely for credit)

BCN 4258C Building Information Modeling
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: BCN 2272 AND BCN 3224

Introduction to 3D Modeling software for Building Information Modeling (BIM). Activities are designed to provide in-depth theory with the use of BIM information and the impact on construction contracts and processes. There is a downloadable free BIM program that will be used but the student must have their own computer to load the program and use it for this course.

BCN 4431 Structures I
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: BCN 2405

Introduction to structural design using wood and steel. Structural behavior and properties of building materials will be covered as they apply to stresses in beams, columns, diaphragms, and structural connections.

BCN 4461 Structures II
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: BCN 2405

Introduction to structural design of foundations and reinforced concrete elements. Structural behavior and properties of soils will be investigated as they apply to building foundations. Properties of reinforced concrete will be covered as they apply to stresses in beams, columns, and foundations.

BCN 4564 Construction Mechanics II
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: BCN 3561

Introduction to electricity, power supply and distribution, communications, life safety, and security systems, electrical design and wiring, light and lighting, lighting equipment and systems, and calculations of illumination.

BCN 4701 Construction Administration
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Overview of the construction industry and professional requirements of management, administration and project management in construction environments. Consideration of information required to sit for the contractor's examination.

BCN 4720C Scheduling
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Provides fundamental concepts of scheduling techniques, applications and software packages. Students will be provided hands on experience with appropriate software.

BCN 4773 Construction Finance and Controls
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)
Prerequisite: MAC 2233 OR MAC 2311

Examines application of construction ownership and business management, and the principles and techniques needed for making economic decisions about building systems and subsystems. Covers various aspects of construction management, financing, risk management, labor law, and worker's compensation. Basic accounting practices are also covered. Students will also explore decision making techniques pertaining to cost and value engineering. Emphasis will be placed on the time-value of money and equivalence, replacement analysis, uncertainty and life cycle costing.

BCN 4905 Directed Study
College of Ed and Prof Studies, Department of Administration and Law

1-12 sh (may be repeated indefinitely for credit)

BCN 4940 Construction Internship/Senior Project
College of Ed and Prof Studies, Department of Administration and Law

3 sh (may not be repeated for credit)

Field-based experience where students work in real-world situations with industry professionals. Students unable to locate an internship complete a complex problem solving project under the direction of the instructor. Permission is required.