BCN 1001 Introduction to Building Construction. F, S (1) (SU). To familiarize pre-construction students with the nature and functioning of the construction industry and the construction management curriculum. The specific safety regulations pertaining to the construction industry will be emphasized.


BCN 1251C Construction Drawing. F, S, (3). Provides basic working knowledge of architectural graphics, practice in instrumental drawing, and experience in free hand sketching.

BCN 1582 International Sustainable Development. F, S, (3). Provides an overview of international trends in reducing the environmental impacts of land development and construction.

BCN 2400C Construction Mechanics Statics. SS, (2). Prereq: PHY 2004 and PHY 2004L. An introductory course in the evaluation of structural behavior as it relates to building. Primarily for building construction majors. The combination of BCN 2400 and 2401 is equivalent to BCN 2405.


BCN 3027C Introduction to Construction Management. F, S, (3). Prereq: junior standing, or permission of instructor. Examination of role of various players involved in the construction and the administration of a construction project. Importance of ethical conduct in all aspects of construction business and operations. Development of advanced writing and presentation skills for construction professionals.

BCN 3223C Soils and Concrete. F, S, (3). Prereq: BCN 2410, BCN 2405C, BCN 3224C. Study of the construction process to include soils, demolition, earth-moving equipment, foundations, concrete mix design, and concrete placement techniques. Includes field visits and soils and concrete laboratories.

BCN 3224C Construction Techniques. F, S, (3). Prereq: BCN 2120 and BCN 2125C. Study of vertical construction process to include wooden platform frame construction, cast-in-place and pre-cast concrete construction, and steel erection. Included are masonry construction, interior and exterior finishes, vertical transportation, roofing and other building components.


BCN 3255C Graphic Communication in Construction. F, S, (3). Prereq: BCN 1251C. Study of construction communication, including the use of computer-aided drafting (applications of 4-D modeling in construction), blueprint reading, free hand sketching, model building, piece-based simulations and the Internet.

BCN 3281C Construction Methods Laboratory. F, S, (2) Construction aspects of surveying with field and classroom exercises in the use of transit, level, chain and related equipment.

BCN 3431C Structures. F, S, (3). Prereq: BCN 2405C. To familiarize the student with the material properties, code requirements, analysis, and construction procedures for steel and reinforced concrete structures.

BCN 3521C Electrical Systems. F, S, (2). Principles and practices of electrical systems, including code provisions and cost estimations.


BCN 3708 Construction Contracts. F, S, (3). Prereq: BCN 3027C. Function of the construction industry, construction contracting practices and construction contracts and delivery methods. Demonstrate professional writing and presentation skills. Be aware of the ethical questions that arise in construction contracts and procurement.

BCN 3730 Construction Safety, Health and Environment. F, S, (3). Construction safety issues, concerns, requirements, and procedures. The analysis includes costs, planning, administration, inspection, prevention, loss control and drug-free understanding. Understanding of the major health issues encountered on construction sites. Appreciation for the need to be environmentally responsible.

BCN 4023 Creating Affordable Housing. F, S, (3). Prereq: senior standing, or permission of instructor. To familiarize students with the construction process and delivery methods. Factors in the housing delivery processing that contribute to affordability problems and potential methods to facilitate the provision of affordable housing will be emphasized.

BCN 4237 Roofing Systems. F, S. (3). Study and analysis of building various roof systems, including design, materials, installation, inspection and maintenance. Includes damp-proofing and waterproofing techniques.

BCN 4252 - Introduction to Building Information Modeling. S, (3). Prereq: BCN 3255C. Learn current building information modeling (BIM) software to identify design errors, to improve construction process.

BCN 4158 3D Modeling for Construction. F, S, (3). Prereq: BCN 3223C, BCN 2425C, BCN 3255C or equivalent experience. Course explores a number of related computer graphics programs and how they can be combined to enhance construction communications. Includes 3D modeling software, HTML and VRML authoring tools, and illustration and drawing programs.

BCN 4423C Temporary Structures. F, S, (3). Prereq: 3413C, senior standing. Study of temporary structures that contractors have to build in order to construct the primary structure. This includes formwork; scaffolding; and equipment for hoisting materials, personnel, and erecting structures.


BCN 4709C Construction Project Management. F, S, (3). Prereq: BCN 4612C and senior standing. Understanding the various forms of project delivery methods (Design/Build, Construction Management, and the Preconstruction Management) and the underlying principles for choosing the appropriate system. Recognizing the complexity of the preconstruction process including conceptual estimating & scheduling, life cycle costing, constructability reviews, value engineering, risk management, and special contract requirements. Understanding management and administration of a construction project.