Building Construction Science

Program Interim Director: Greg G. Hall, PhD, AIA, NCARB
Office 132 Howell Building

The Building Construction Science degree program is a four year Bachelor of Science degree designed to prepare graduates for careers in construction or construction-related fields. The 124 credit hour program is an interdisciplinary curriculum that builds upon expertise existing within the School of Architecture and the College of Engineering and the College of Business as well as the building construction industry to provide a knowledge base in business, engineering, and construction sciences. The curriculum's foundational areas are based on a problem-and inquiry-based learning. Through the four year studio curriculum, students learn by applying skills and knowledge to complex construction problems that integrate multiple subject areas. The studio-based teaching focuses on the use of case studies and integration of multiple subject areas. This integration of a broader scope of architectural, engineering, construction, and business practices is a different approach than a traditional construction technology curriculum that separates subject areas into distinct courses.

The Building Construction Science curriculum includes a general education foundation of mathematics, science, business, and construction specific courses: construction systems, building technology, structures, and materials and methods of construction and incorporates these and other areas such as estimating, scheduling, safety, project management, and construction law into the studio curriculum. Course development is built upon the strengths of the three colleges that are collaborating in the effort. Many colleges involve hands-on making using both materials and material constructions. Building Construction Science students collaborate with architecture, engineering, and interior design students as a regular part of their course work. The Building Construction Science curriculum has been designed to meet the criteria established by the American Council for Construction Education (ACCE) and program accreditation is being pursued.

Admissions

Admission to the Building Construction Science degree program is limited and competitive. Prospective students are encouraged to tour the program's facilities to be introduced to the program and talk with students and faculty. Instructions and contact information ca be found at www.caad.msstate.edu/bcs/scheduleavisit.php.

Application Process:

1. Apply to Mississippi State University.
2. Submit all required materials including high school and/or college/university transcripts and ACT and/or SAT scores (see note below regarding admission requirement of MA 1313 College Algebra and MA 1323 Trigonometry or equivalent).
3. Indicate your choice of major as "Building Construction Science."
4. Once admitted to MSU, complete the Building Construction Science application available on the BCS Program website.

BCS program applications are reviewed upon receipt and accepted upon verification that the applicant meets the identified criteria. Preference may be given to highly qualified students who submit applications by February 15. After this date highly qualified students may be considered as space permits.

Grades

A minimum 2.0 MSU GPA is required to be eligible to enroll in BCS studio courses (BCS 1116, BCS 1126, BCS 2116, BCS 2226, BCS 3116, BCS 3126, BCS 4116, BCS 4126). Only courses taken at MSU will raise or lower the cumulative MSU GPA.

Student Fees

Additional course fees are charged for BCS construction studios and other major core courses and are collected with the MSU tuition. Fees are also charged for field trip expenses that occur in specific construction studio courses. Field trip fees are non-refundable after the 6th day of classes.

Computer Requirement

The BCS program requires all students to purchase a laptop computer with related software and peripherals when they enter the studio course sequence. Computer hardware and software specifications are available on the BCS program web site.

Degree Requirements

English Composition		
EN 1103	English Composition I	3
or EN 1163	Accelerated Composition I	
EN 1113	English Composition II	3
or EN 1173	Accelerated Composition II	
Mathematics		
MA 1613	Calculus for Business and Life Sciences I [1]	3
ST 2113	Introduction to Statistics	3

Science		
PH 1113	General Physics I [1]	3
PH 1123	General Physics II	3
BCS 2713	Passive Building Systems	3
Humanities		
See General Education courses		6
Fine Arts		
ARC 1013	Architectural Appreciation	3
Social Sciences		
EC 2113	Principles of Macroeconomics	3
EC 2123	Principles of Microeconomics	3
Major Core		
CE 2213	Surveying	3
ID 3363	3/D CAD/Modeling	3
BCS 3723	Active Building Systems	3
BCS 3904	Structures I	4
BCS 3914	Structures II	4
BCS 1116	Building Construction Studio A [1]	6
BCS 1126	Building Construction Studio B	6
BCS 2116	Building Construction Studio 1	6
BCS 2226	Building Construction Studio 2	6
BCS 3116	Building Construction Studio 3	6
BCS 3126	Building Construction Studio 4	6
BCS 4116	Building Construction Studio 5	6
BCS 4126	Building Construction Studio 6	6
BCS 3213	Electrical Systems	3
BCS 3323	High Performance Construction	3
BCS 4222	Professional Communication and Practice	2
ACC 2013	Principles of Financial Accounting	3
ACC 2023	Principles of Managerial Accounting	3
BL 2413	The Legal Environment of Business	3
Electives		6
Computer Literacy Requirement		
Satisfied by successful completion of the BCS studio courses		
Oral Communication Requirement		
Satisfied by successful completion of the BCS studio courses		
Writing Requirement		
Satisfied by successful completion of the BCS studio courses		
Total Hours		124

[1] Following are prerequisites for courses that students are recommended to take during the first semester of the BCS program. Please note that BCS 1116, MA 1613, and PH 1113 are prerequisites for other courses in the BCS program.
BCS 1116 Building Construction Studio A - Prerequisites: MA 1313 and MA 1323 or an ACT Math subscore of at least 24
MA 1613 Calculus for Business and Life Sciences I - Prerequisite: Grade of C or better in MA 1313 or an ACT Math subscore of at least 24
PH 1113 General Physics I - Prerequisite: MA 1323 or an ACT Math subscore of at least 26
Students may receive credit for MA 1313 College Algebra by completing the College Level Examination Program (CLEP) test.
Students may also receive credit for MA 1313 College Algebra and/or MA 1323 Trigonometry by completing the course at another university or community college. Students are responsible for confirming transfer course equivalents in advance using the MSU Transfer Course Equivalent webpage https://www.registrar.msstate.edu/students/transfer-course-information/ (https://www.registrar.msstate.edu/students/transfer-course-information)or by contacting the MSU Registrar directly transferarticulation@registrar.msstate.edu. (transferarticulation@registrar.msstate.edu)
Students should refer to the Undergraduate Student Catalog for prerequisites for other courses.