BUILDING SCIENCES BACHELOR OF SCIENCE

Now accepting applications for Fall 2025.

Program Educational Objectives

The Program is designed to educate students in foundational design, construction and engineering principles combined with relevant general education and focused science and math experience in topics specific to preparing and advancing professional skills in building sciences. Four semesters of architectural design studio education, supported by related courses in drawing, digital modeling, and building technologies, provide the foundation for building professionals able to envision architectural form and resolve complex spatial organization; foundational and advanced courses in engineering and construction management complement the program's design pedagogy with a focus on systems analysis and optimization, team and process management, and innovation.

Student Learning Outcomes

Students in the Bachelor of Science in Interdisciplinary Building Sciences program will attain, by the time of graduation, the ability to:

- Develop design concepts through critical, rational, and intuitive thinking and articulate those concepts in written, verbal, and graphic forms, using appropriate media;
- Analyze and resolve complex design challenges based on knowledge of construction principles, regulations, site logistics, and quality control;
- Interpret building codes and apply principles of life safety and accessibility;
- Employ knowledge of basic structural behavior and apply appropriate structural systems to design proposals;
- Select and integrate climate control and other building systems appropriate to a chosen site and program, prioritizing sustainability and minimizing negative impacts on the environment;
- Describe different methods of project delivery and articulate the roles and responsibilities of all constituencies involved in the design and construction process;
- Propose sustainable solutions to specific construction challenges based on research and exploration of alternatives.

Course	Title	Credits
Freshman Year		
Fall Semester		
ARCH1000	STUDIO 01	6
ARCH1200	ARCHITECTURAL REPRESENTATION	4
English Sequence		4
MATH1000	COLLEGE MATHEMATICS	4
MATH1500, MATH1700, MATH1750, MATH1800 or MATH1850 will satisfy the MATH Requirement		
	Credits	**18**
Spring Semester		
ARCH1500	STUDIO 02	6
ARCH1700	ARCHITECTURAL MEDIA	4
English Sequence		4
PHYS1000	COLLEGE PHYSICS I	4
PHYS1250 will also satisfy the PHYS requirement		
	Credits	**18**
Sophomore Year		
Fall Semester		
ARCH2000	STUDIO 03	6
CHEM1000	CHEMISTRY OF THE BUILT ENVIRONMENT	4
CONM1200	BUILDING CONSTRUCTION	4
CONM2100	STATICS & STRENGTH OF MATERIALS	4
COOP2500	INTRODUCTION TO COOPERATIVE EDUCATION	0
	Credits	**18**
Spring Semester		
ARCH2500	STUDIO 04	6
ARCH2700	ENERGY & RESOURCES IN ARCHITECTURE	4
CONM1550	INTRODUCTION TO PLAN READING & SPECIFICATIONS	2
HSS Elective*		4
	Credits	**16**
Junior Year		
Fall Semester		
CIVE3100	ENVIRONMENTAL ENGINEERING	4
CONM2200	ESTIMATING	4
MATH1030	STATISTICS & APPLICATIONS	4
HSS Elective*		4
	Credits	**16**
Spring Semester		
CONM1525	INTRODUCTION TO BUILDING INFORMATION MODELING (BIM)	2
CONM2500	BUILDING SYSTEMS	4
CONM2600	WOOD & STEEL ANALYSIS & DESIGN	3
HSS Elective*		4
CONM1XXX Contracts + Code Analysis		2
	Credits	**15**
Summer Semester		
COOP3500	COOP EDUCATION 1	
	Credits	**0**
Senior Year		
Fall Semester		
CONM3600	CONCRETE ANALYSIS & DESIGN	4
IDBS 1XXX Building Science Research		2
Electives		8-9
	Credits	**14-15**
Spring Semester		
COOP4500	COOP EDUCATION 2	
	Credits	**0**
Summer Semester		
IDBS 5XXX Capstone		4
HSS Elective*		4

Course	Title	Credits
Electives		6-7
	Credits	**14-15**
	Total Credits	**129-131**