

Environmental Design in Architecture (Bachelor)

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

The Bachelor of Environmental Design in Architecture (BEDA) is a four-year, pre-professional degree program that immerses students in architectural design fundamentals through studio- and project-based courses. Students take an array of classes that focus on history, theory, technology, structures, materials, construction, and general education subjects. The BEDA program prepares students for further study in a professional degree program such as the one-year Bachelor of Architecture (B.Arch) or a two-year Master of Architecture (M.Arch). The BEDA also prepares students for advanced study in related fields such as Landscape Architecture and City Design.

The four years of the BEDA curriculum are divided into:

- The First Year Experience (a common first year curriculum shared by all majors in the College of Design)
- The Second Year Concentrated Architectural Studies
- The Third Year Concentrated Architectural Studies
- The Fourth Year (study abroad, "swing" studios in other majors; design/build studio; and elective seminars).

Learn more about the BEDA program about the School of Architecture on our website (<https://design.ncsu.edu/architecture/>).

Plan Requirements

Code	Title	Hours	Counts towards
Architecture Core Requirements			
ARC 162	An Introduction to Architecture	3	
ARC 211	Natural Systems and Architecture ¹	3	
ARC 241	History of World Architecture ¹	3	
ARC 232	Structures and Materials ¹	3	
ARC 242	History of Western Architecture ¹	3	
ARC 251	Digital Representation	3	
ARC 331	Architectural Structures I ¹	3	
ARC 332	Architectural Structures II ¹	3	
ARC 414	Environmental Control Systems ¹	3	
ARC 432	Architectural Construction Systems	3	

ARC 441	History of Contemporary Architecture ¹	3
Restricted Elective ²		3
Architecture Studio Requirement		
D 100	Design Inquiry I: Methods and Processes	3
D 101	Design Inquiry II: Methods and Processes	3
D 104	First Year Studio I ¹	6
D 105	First Year Studio II ¹	6
ARC 201	Architectural Design: Environment ¹	6
ARC 202	Architectural Design: Form ¹	6
ARC 301	Architectural Design: Tectonics ¹	6
ARC 302	Architectural Design: Technology ¹	6
ARC 401	Architectural Design: Urban ¹	6
ARC 402	Architectural Design: Advanced ¹	6
Mathematics & Natural Sciences		
Mathematics Elective (p. 2)		3
PY 211	College Physics I	4
International Experience		
International Experience (verify requirement) ²		0
General Education Program (GEP) Courses		
ENG 101	Academic Writing and Research ¹	4
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
GEP Social Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/)		6
GEP Mathematical Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/)		3
GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)		3

GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)	2
GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)	3
GEP U.S. Diversity (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/) (verify requirement)	
GEP Global Knowledge (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/) (verify requirement)	
Foreign Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/foreign-language-proficiency/) (verify requirement)	
Free Electives	
Free Electives (12 Hr S/U Lmt) ²	5
Total Hours	126

¹ A grade of C- or higher is required.

² Students should consult their academic advisors to determine how to complete this requirement.

Mathematics Electives

Code	Title	Hours	Counts towards
MA 107	Precalculus I	3	
MA 108	Precalculus II	3	
MA 111	Precalculus Algebra and Trigonometry	3	
MA 121	Elements of Calculus	3	
MA 131	Calculus for Life and Management Sciences A	3	
MA 141	Calculus I	4	

Semester Sequence

This is a sample.

First Year

Fall Semester	Hours
D 100 Design Inquiry I: Methods and Processes	3
D 104 First Year Studio I ¹	6
ENG 101 Academic Writing and Research	4
Mathematics Elective (p. 2)	3
Hours	16

Spring Semester

D 101 Design Inquiry II: Methods and Processes	3
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D 105 First Year Studio II ¹	6
ARC 162 An Introduction to Architecture	3
PY 211 College Physics I	4
Hours	16

Second Year

Fall Semester

ARC 201 Architectural Design: Environment ¹	6
ARC 211 Natural Systems and Architecture ¹	3
ARC 241 History of World Architecture ¹	3
GEP Mathematical Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/)	3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)	1
Hours	16

Spring Semester

ARC 202 Architectural Design: Form ¹	6
ARC 232 Structures and Materials ¹	3
ARC 242 History of Western Architecture ¹	3
ARC 251 Digital Representation	3
GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)	3
Hours	18

Third Year

Fall Semester

ARC 301 Architectural Design: Tectonics ¹	6
ARC 331 Architectural Structures I ¹	3
ARC 432 Architectural Construction Systems ¹	3
ARC 441 History of Contemporary Architecture ¹	3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)	1
Hours	16

Spring Semester

ARC 302 Architectural Design: Technology ¹	6
ARC 332 Architectural Structures II ¹	3
ARC 414 Environmental Control Systems ¹	3
GEP Social Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/)	3
Hours	15

Fourth Year

Fall Semester

ARC 490 Architecture International Studio ¹ or ARC 401 or Architectural Design: Urban	6
Free Elective	2
Free Elective	3
GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)	3
Hours	14

Spring Semester

ARC 402 Architectural Design: Advanced ¹	6
Restricted Elective	3

GEP Social Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/)	3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)	3
Hours	15
Total Hours	126

¹ A grade of C- or higher is required.

Major/Program Footnotes:

- No more than one studio may be taken in any semester.
- Foreign language proficiency at 102 level is required for graduation but does not count toward the degree requirements.