

# Environmental Design in Architecture (Bachelor)

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
<b>Architecture Core Requirements</b>		
ARC 162	An Introduction to Architecture	3
ARC 211	Natural Systems and Architecture <sup>1</sup>	3
ARC 241	History of World Architecture <sup>1</sup>	3
ARC 232	Structures and Materials <sup>1</sup>	3
ARC 242	History of Western Architecture <sup>1</sup>	3
ARC 251	Digital Representation	3
ARC 331	Architectural Structures I <sup>1</sup>	3
ARC 332	Architectural Structures II <sup>1</sup>	3
ARC 414	Environmental Control Systems <sup>1</sup>	3
ARC 432	Architectural Construction Systems	3
ARC 441	History of Contemporary Architecture <sup>1</sup>	3
Restricted Elective <sup>2</sup>		3
<b>Architecture Studio Requirement</b>		
D 100	Design Inquiry I: Methods and Processes	3
D 101	Design Inquiry II: Methods and Processes	3
D 104	First Year Studio I <sup>1</sup>	6
D 105	First Year Studio II <sup>1</sup>	6
ARC 201	Architectural Design: Environment <sup>1</sup>	6
ARC 202	Architectural Design: Form <sup>1</sup>	6
ARC 301	Architectural Design: Tectonics <sup>1</sup>	6
ARC 302	Architectural Design: Technology <sup>1</sup>	6
ARC 401	Architectural Design: Urban <sup>1</sup>	6
ARC 402	Architectural Design: Advanced <sup>1</sup>	6
<b>Mathematics &amp; Natural Sciences</b>		
Mathematics Elective (p. 1)		3

PY 211	College Physics I	4
<b>International Experience</b>		
International Experience (verify requirement) <sup>2</sup>		0
<b>General Education Program (GEP) Courses</b>		
ENG 101	Academic Writing and Research <sup>1</sup>	4
GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )		3
GEP Social Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/</a> )		6
GEP Mathematical Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/</a> )		3
GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> )		3
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		2
GEP Additional Breadth ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/</a> )		3
GEP U.S. Diversity ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/</a> ) (verify requirement)		
GEP Global Knowledge ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/</a> ) (verify requirement)		
Foreign Language Proficiency (verify requirement)		
<b>Free Electives</b>		
Free Electives (12 Hr S/U Lmt) <sup>2</sup>		5
<b>Total Hours</b>		<b>126</b>

<sup>1</sup> A grade of C- or higher is required.

<sup>2</sup> Students should consult their academic advisors to determine how to complete this requirement.

## Mathematics Electives

Code	Title	Hours
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 <sup>1</sup>	6
ENG 101	Academic Writing and Research	4
Mathematics Elective (p. 1)		3
Hours		16

### Spring Semester

D 101	Design Inquiry II: Methods and Processes	3
D 105	First Year Studio II <sup>1</sup>	6
ARC 162	An Introduction to Architecture	3

PY 211	College Physics I	4
<b>Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ARC 201	Architectural Design: Environment <sup>1</sup>	6
ARC 211	Natural Systems and Architecture <sup>1</sup>	3
ARC 241	History of World Architecture <sup>1</sup>	3
GEP Mathematical Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-mathematical-sciences/</a> )		3
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		1
<b>Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ARC 202	Architectural Design: Form <sup>1</sup>	6
ARC 232	Structures and Materials <sup>1</sup>	3
ARC 242	History of Western Architecture <sup>1</sup>	3
ARC 251	Digital Representation	3
GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> )		3
<b>Hours</b>		<b>18</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ARC 301	Architectural Design: Tectonics <sup>1</sup>	6
ARC 331	Architectural Structures I <sup>1</sup>	3
ARC 432	Architectural Construction Systems <sup>1</sup>	3
ARC 441	History of Contemporary Architecture <sup>1</sup>	3
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		1
<b>Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ARC 302	Architectural Design: Technology <sup>1</sup>	6
ARC 332	Architectural Structures II <sup>1</sup>	3
ARC 414	Environmental Control Systems <sup>1</sup>	3
GEP Social Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/</a> )		3
<b>Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ARC 490 or ARC 401	Architecture International Studio <sup>1</sup> or Architectural Design: Urban	6
Free Elective		2
Free Elective		3
GEP Additional Breadth ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/</a> ) (Humanities/Social Sciences/Visual and Performing Arts)		3
<b>Hours</b>		<b>14</b>
<b>Spring Semester</b>		
ARC 402	Architectural Design: Advanced <sup>1</sup>	6
Restricted Elective		3
GEP Social Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/</a> )		3

GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )	3
<b>Hours</b>	<b>15</b>
<b>Total Hours</b>	<b>126</b>

<sup>1</sup> 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.

## Career Opportunities

### Career Titles

- Architect
- Architecture Professor
- Environmental Planner
- Facilities Planner
- Industrial Designer
- Interior Designer
- Landscape Architect
- Model Maker
- Solar Energy Systems Designer

## Learn More About Careers

NCCareers.org (<https://nccareers.org/>)

Explore North Carolina's central online resource for students, parents, educators, job seekers and career counselors looking for high quality job and career information.

Occupational Outlook Handbook (<https://www.bls.gov/ooh/>)

Browse the Occupational Outlook Handbook published by the Bureau of Labor Statistics to view state and area employment and wage statistics. You can also identify and compare similar occupations based on your interests.

Career One Stop Videos (<https://www.careeronestop.org/>)

View videos that provide career details and information on wages, employment trends, skills needed, and more for any occupation. Sponsored by the U.S. Department of Labor.

Focus 2 Career Assessment (<https://careers.dasa.ncsu.edu/explore-careers/career-assessments/>) (NC State student email address required)

This career, major and education planning system is available to current NC State students to learn about how your values, interests, competencies, and personality fit into the NC State majors and your future career. An NC State email address is required to create an account. Make an appointment with your career counselor (<https://careers.dasa.ncsu.edu/about/hours-appointments/>) to discuss the results.

Focus 2 Apply Assessment (<https://www.focus2career.com/Portal/Register.cfm?SID=1929>) (Available to prospective students)

A career assessment tool designed to support prospective students in exploring and choosing the right major and career path based on your unique personality, interests, skills and values. Get started with Focus 2 Apply and see how it can guide your journey at NC State.