

## What is it?

In little more than a decade, global urban land area is expected to triple, creating a host of complex sustainability challenges. The way we design, create, and manage cities and other urbanized areas will have a significant impact on our future quality of life and the global environment. Professionals are now faced with a new and complex challenge: integrating the natural world into the built environment for the benefit of society. Students completing the Ecological Cities minor will **be better prepared to critically analyze sustainable design and practice in cities** and its scientific and cultural underpinnings.



## Why do it?



Students will **gain unique experiences working with classmates from other disciplines on common problems**, giving them a considerable advantage in their future careers. The minor will be at the leading edge in training professionals to work in collaborative, interdisciplinary integrated design teams. Such collaborative problem-solving is increasingly a feature of professional life for those in careers that shape the urban environment and are particularly in demand where ecological systems are interwoven with urban systems to achieve specific outcomes.

## Who is it for?

Although the minor is appropriate for students from across the university, **the minor targets students preparing for careers that shape the outdoor urban environment**, as well as those who would like a synthesized exploration of urban systems that brings together STEM disciplines, the humanities and social sciences, and design.

## Pathways Core Concepts

- 3 - Reasoning in the Social Sciences
  - 4 - Reasoning in the Natural Sciences
  - 5f - Foundational Quantitative and Computational Thinking
  - 6ad - Critique and Practice in Design and the Arts
- Additional concepts possible depending on elective choices

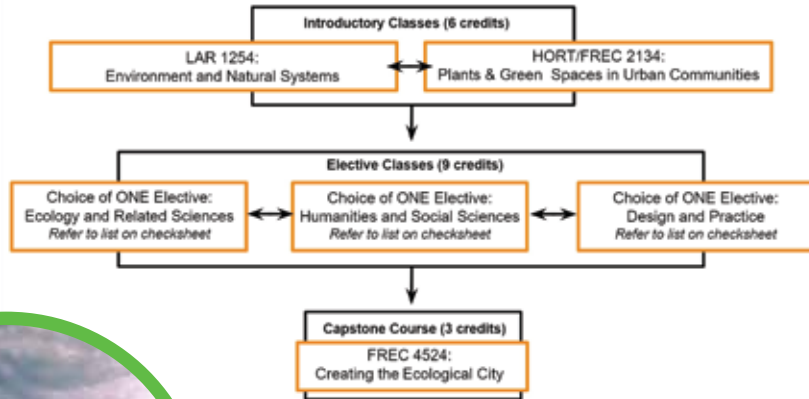
## Pathways Integrative Concepts

- Ethical Reasoning
- Intercultural and Global Awareness

# PATHWAYS MINORS ECOLOGICAL CITIES

## Requirements

The 18-credit hour minor in Ecological Sciences includes 9 hours of required pathways courses and 9 hours of elective courses, of which some are pathways, selected from a list.



- Explore the essential role of natural systems in human well-being and urban infrastructure functions through a design lens.
- Look at cities through an ecological lens with an emphasis on using scientific inquiry as a basis for assessments of sustainability.
- Address disciplinary arenas that are foundational to creating ecological cities.
- Prepare to think analytically about how to assess sustainable design and practice in cities and its scientific and cultural foundations.

## Required courses

LAR 1254: Environment and Natural Systems  
HORT/FREC 2134: Plants & Greenspaces in Urban Communities  
FREC/BSE/HORT/LAR/SPIA 4554: Creating the Ecological City\*

\*senior standing required

## Elective courses

Students select 9 credit hours of elective courses, one from each category: Ecology and Related Sciences, Humanities and Social Sciences, and Design and Practice. For a complete list of elective courses, consult the checksheet at <https://registrar.vt.edu/graduation-multi-brief/index1.html>.

[www.pathways.prov.vt.edu/minors](http://www.pathways.prov.vt.edu/minors)

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PATHWAYS GENERAL EDUCATION