

Computational Modeling and Data Analytics

Pathways is the General Education Curriculum at Virginia Tech.

As a central component of the undergraduate experience, the Pathways curriculum will allow you to examine the world from multiple perspectives and integrate your knowledge across various disciplines. Along with the coursework required for your major, you will complete credits from nine Pathways concepts (seven core concepts and two integrative concepts).

Core Concepts

You will complete a total of 45 credits across seven Pathways core concepts. The number of credits required per concept is listed below.

- | | | | |
|--|--|---|---|
| <p>1 Discourse
9 credits
6 Foundational (1f)
3 Advanced (1a)</p> | <p>2 Critical Thinking in the Humanities
6 credits</p> | <p>3 Reasoning in the Social Sciences
6 credits</p> | <p>4 Reasoning in the Natural Sciences
6 credits</p> |
| <p>5 Quantitative and Computational Thinking
9 credits
3 Foundational (5f)
3 Advanced (5a)
3 Foundational OR Advanced</p> | <p>6 Critique and Practice in Design and the Arts
6 credits
3 Design (6d)
3 Arts (6a)</p> | <p>7 Critical Analysis of Identity and Equity in the United States
3 credits
may be double-counted with another core concept</p> | |

Integrative Concepts

Each Pathways course also meets at least one integrative concept, ensuring that you complete your general education with competency in both ethical reasoning and intercultural and global awareness.

- **Ethical Reasoning**
Throughout
- **Intercultural and Global Awareness**
Throughout

Pathways Requirements for Your Major

Some Pathways requirements are met through your in-major classes, and those not satisfied within your major can be fulfilled by a Pathways minor!

Which general education requirements are satisfied by your major?

- Quantitative and Computational Thinking (5f & 5a)

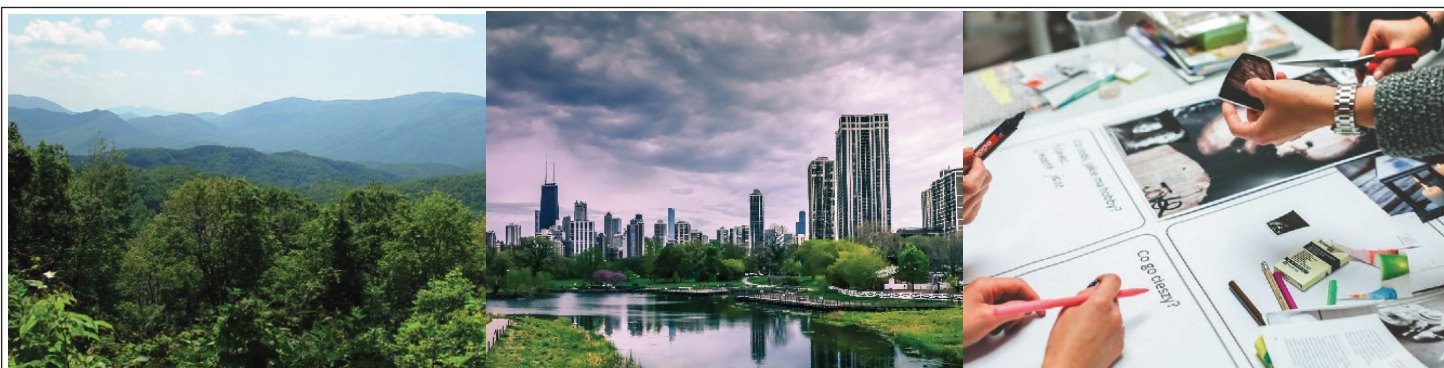
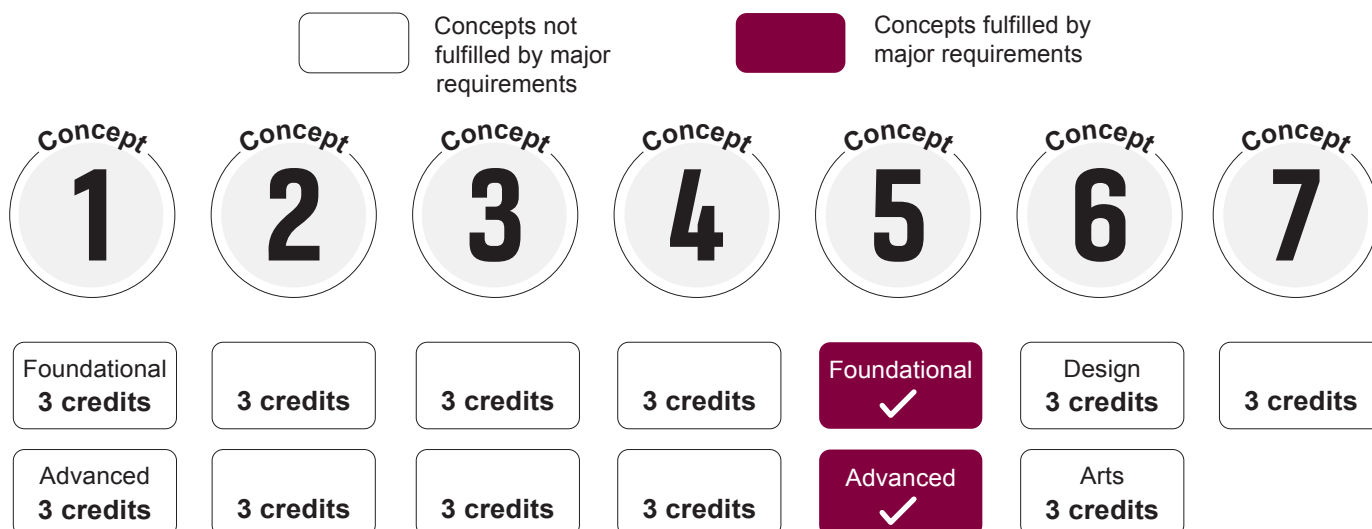
But what about your other requirements?

- Discourse (1f & 1a)
- Critical Thinking in the Humanities (2)
- Reasoning in the Social Sciences (3)
- Reasoning in the Natural Sciences (4)
- Critique and Practice in Design and the Arts (6d & 6a)
- Critical Analysis of Identity & Equity in the US (7)

How to Choose a Pathways Minor for Your Major

Wondering how a Pathways minor can complement your major? The chart below maps out which credits are met within your major.* See the section below for Pathways minors that can help you fill in the gaps.

*Based on 2024-25 program requirements. Requirements may vary by student's date of entry and degree option. Consult with your advisor as needed.



Explore Minors that may be a Good Fit for Your Major

The Pathways minors listed below offer the most opportunity to fulfill the concepts not met within your major. Explore the minors below of find all Pathways minors at pathways.prov.vt.edu/minors/showcase.

- [Appalachian Cultures and Environments](#)
- [Blue Planet](#)
- [Innovation](#)
- [Organizational Leadership](#)
- [Pathways to Sustainability](#)
- [Philosophy, Politics, and Economics](#)
- [Strategic Communication](#)