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.

1. **Discourse**
   - 9 credits
   - 6 Foundational (1f)
   - 3 Advanced (1a)

2. **Critical Thinking in the Humanities**
   - 6 credits

3. **Reasoning in the Social Sciences**
   - 6 credits

4. **Reasoning in the Natural Sciences**
   - 6 credits

5. **Quantitative and Computational Thinking**
   - 9 credits
   - 3 Foundational (5f)
   - 3 Advanced (5a)
   - 3 Foundational OR Advanced

6. **Critique and Practice in Design and the Arts**
   - 6 credits
   - 3 Design (6d)
   - 3 Arts (6a)

7. **Critical Analysis of Identity and Equity in the United States**
   - 3 credits
   - may be double-counted with another core concept

### 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 the Mathematics 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)

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*Critique and Practice in Design is met in-major for the Applied Discrete Mathematics (ADM) option.
How to Choose a Pathways Minor for a Mathematics 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.

*Requirements may vary by degree option. Consult the checksheet or speak with your advisor

*Critique and Practice in Design is met in-major for the Applied Discrete Mathematics (ADM) option.

Minors That Are a Good Fit for Your Mathematics Major

The Pathways minors listed below offer the most opportunity to fulfill the concepts not met within your major. Click on the name to learn more about each minor, or explore all Pathways minors at pathways.prov.vt.edu/minors/showcase.

- Civic Agriculture and Food Systems
- Data and Decisions
- Ecosystems for Human Well-Being
- Integrated Security
- Leadership and Social Change
- Science, Technology, and Law
- Visual Arts and Society