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.

<table>
<thead>
<tr>
<th>Core Concept</th>
<th>Credits</th>
<th>Foundational</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discourse</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Critical Thinking in the Humanities</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasoning in the Social Sciences</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasoning in the Natural Sciences</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative and Computational Thinking</td>
<td>9</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Critique and Practice in Design and the Arts</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Critical Analysis of Identity &amp; Equity in the US</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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

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### Pathways Requirements for the Microbiology 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?**

- Foundational Discourse (1f)
- Reasoning in the Natural Sciences (4)
- Quantitative and Computational Thinking (5f & 5a)

**But what about your other requirements?**

- Advanced Discourse (1a)
- Critical Thinking in the Humanities (2)
- Reasoning in the Social Sciences (3)
- 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 a Microbiology 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

Minors That Are a Good Fit for Your Microbiology 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.

- Appalachian Cultures and Environments
- Civic Agriculture and Food Systems
- Ecological Cities
- Innovation
- Pathways to Sustainability
- Philosophy, Politics, and Economics
- Technology, Humans, and Environment