Pathways to General Education

Advising Guide

A Guide for Students, Advisors & Faculty
Pathways: General Education at Virginia Tech

Advising Guide

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Check out our website pathways.prov.vt.edu

Click to access our FB page www.facebook.com/VTGenEd
Undergraduate Advising at Virginia Tech

**Definition**

Advising at Virginia Tech is a collaborative process between student and advisor leading to the exchange of information that encourages the individual student to make responsible academic and career decisions.

**Philosophy**

Virginia Tech demonstrates a commitment to advising through recognizing and supporting the needs of students and advisors. Each undergraduate student at the University is provided information and assistance, which aids the individual student in making responsible academic and career decisions. Each advisor is provided the necessary tools to respond to student needs and the opportunity to be recognized and rewarded for exemplary advising. Virginia Tech, in support of this philosophy, will provide student-focused advising and assist students in developing skills that lead them to take active responsibility for the advising process.

**Statement of University Responsibility**

Senior leaders will provide leadership by:

- Reviewing the advising process to assess the impact of the recommendations implemented;
- Providing information for students, advisors, parents, and other constituents that clearly explains responsibilities and expectations related to advising;
- Making information available about advising for all new faculty and appropriate staff;
- Collecting and disseminating information that contributes to effective advising;
- Assisting students in clarification of academic and long term goals;
- Supporting initiatives to enhance the use of technology in advising;
- Providing support for a web-based interactive advising support system for students, advisors, parents, and other constituents;
- Supporting a Virginia Tech plan that would effectively assess, recognize, and reward advising in the annual professional evaluation.

**Statement of Student Responsibility**

The student shares responsibility for developing and advising partnership with the advisor. Over time, the partnership results in increased responsibility for the student. Students are responsible for:

- Communicating goals, needs, wants, and concerns to the advisor in a respectful and sincere manner;
- Keep abreast of their own academic progress and requirements related to their academic programs;
- Making, keeping, and being prepared for appointments with the advisor;
- Informing the advisor of changes in plans and/or circumstances that might impact academic performance;
- Knowing departmental procedures regarding changing advisors;
- Bringing any concerns regarding the quality of advising to the attention of the advisor.

**Statement of Advisor Responsibility**

The advisor shares responsibility for developing an advising partnership with each student. Advisors are responsible for:

- Communicating with students and delivering individualized and accurate information in a professional and sincere manner;
- Being informed and providing accurate information about current academic policies and procedures;
- Keeping appointments and being available for assistance;
- Providing appropriate referrals, contacts, and information;
- Doing appropriate follow-up with students;
- Seeking out and taking advantage of opportunities for professional development.

For further information about advising at Virginia Tech visit www.advising.vt.edu or contact your advisor.
Pathways: General Education at Virginia Tech

As a central component of the undergraduate experience at Virginia Tech, the Pathways curriculum will guide students to examine the world from multiple perspectives and integrate their knowledge across disciplines and domains of learning through a hands-on, minds-on, approach.

The purpose of Pathways to General Education is to prepare individuals to engage with diversity, complexity, and change; to provide students with a broad knowledge of the world.

Virginia Tech’s new approach is Pathways to General Education which offers a coherent program comprised of courses reflecting best practices in pedagogy, as well as a vibrant, flexible, and meaningful general education.
What Students Will Gain | Pathways Principles

The Pathways curriculum will provide a breadth of learning drawn from various disciplines and will be developed in accordance with the following principles: Integration, Inclusivity, and Relevance.

Integration

Students will have opportunities to integrate Ethical Reasoning and Intercultural Global Awareness in a variety of contexts. Students completing interdisciplinary minors will integrate ways of knowing between courses and in a culminating capstone experience. Students completing the alternative pathways will have opportunities to integrate skills and knowledge through learning experiences both in and outside of the traditional classroom.

Inclusivity

The Pathways Curriculum offers flexibility to support the diverse paths students take to Virginia Tech. By encountering inclusive pedagogies in the classroom, students from a variety of backgrounds can better develop the skills and knowledge to contribute to the democratic and global society in which they live and work. Students will be encouraged to examine issues of diversity and inclusion such as gender, race, SES, and sexual orientation through integration of outcomes in Intercultural and Global Awareness.

Relevance

Students can clearly connect well-aligned course goals, activities, and learning artifacts by completing lessons built on best practices in learning design. Students can explore fundamental areas of knowledge to build a strong foundation for participation in further curricular and co-curricular experiences. Students will develop skills they need for success in every area of their lives: communication, problem solving, critical thinking, ethical behaviors, inquiry and creativity.
Pathways Options

Students might pursue the Pathways curriculum in one of three options: the traditional Distributive model, the Pathways Minor, or the Alternative Pathway.

The Pathways Curriculum requires a total of 45 credits to fulfill the 7 core outcomes and both integrative outcomes. All students must complete all requirements; however, students might pursue a minor or an alternative Pathway as means of completing a portion of the requirements.

Pathways Minor
(some students) 18 credits (out of 45)

Pathways Requirements for All Students 45 credits

Alternative Pathway
(some students) min 9 credits (out of 45)

Distributive Pathway

The Distributive Pathway is the traditional model, similar to Virginia Tech’s Curriculum for Liberal Education. Students choose to fulfill requirements and many transfer courses may be equivalent to these learning outcomes.

Requirements

- Students will complete 45 credit hours fulfilling the requirements of all core learning and integrative outcomes.
- AP/IB/Dual enrollment and transfer courses can still meet these requirements following the standard institutional review process.
Pathways Minor

Students engaging in the pathways minor will experience the breadth of learning in general education as well as a depth and integration through a cross-disciplinary minor.

Requirements

- Cross disciplinary program with at least three core learning outcomes and both integrative outcomes
- At least 18 credits with a minimum of 6 at the 3000-4000 level. Note: not all courses in the minor need to be approved as Pathways courses.
- It includes a capstone experience
- Students completing a minor will earn 9 pathways credits or more.
- All students undertaking Pathways Minors must still complete the remainder of the Pathways credit hours and outcomes not covered by the minor.

Alternative Pathway

The Alternative Pathways are high impact learning experiences offered in order to meet general education outcomes with more flexibility. This Pathway could include: Study Abroad, Co-Curricular experiences, Undergraduate Research, Presidential Global Scholars and others.

Requirements

- Meet three core outcomes and both integrative outcomes
- Faculty advisor supervision
- Prior approval by UCCGE
- All students undertaking Alternative Pathways must still complete the remainder of the Pathways credit hours and outcomes not covered by the Alternative Pathway.

Examples:

- Presidential Global Scholars
- Study abroad to Ecuador
The Pathways curriculum includes seven core learning outcomes and two integrative learning indicators (LO's). The outcomes reflect broad knowledge areas for study and are supported by indicators of learning. These indicators describe the observable behaviors that students will demonstrate as they pursue breadth and/or depth related to particular outcomes.

### Core Outcomes

The core learning outcomes reflect the most traditional distribution model of general education and could be met either at Virginia Tech or with credits earned via transfer, Advanced Placement, or International Baccalaureate credit. The integrative outcomes are those that could be met along with a core learning outcome in a particular course.

- **Discourse**
  - 9 credits
- **Quantitative and Computational Thinking**
  - 9 credits
- **Reasoning in the Natural Sciences**
  - 6 credits
- **Critique and Practice in Design and the Arts**
  - 6 credits
- **Reasoning in the Social Sciences**
  - 6 credits
- **Critical Thinking in the Humanities**
  - 6 credits
- **Critical Analysis of Identity and Equity in the United States**
  - 3 credits (double-counting)
Discourse

Exchange of ideas in writing or speaking, adapted to specific contexts and developed through discovery, analysis, creation, presentation, and evaluation. A student who is competent in discourse demonstrates the ability to reason, write, and speak effectively for academic, professional, and public purposes. Students will demonstrate increasing proficiency over the years. All learning indicators would be met in all courses, but expectations for proficiency would be heightened for advanced/applied courses.

**Credit hours:** 9 credits—6 foundational + 3 advanced/applied writing and/or speaking courses

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**Indicators of Learning**

1. Discover and comprehend information from a variety of written, oral, and visual sources.
2. Analyze and evaluate the content and intent of information from diverse sources.
3. Develop effective content that is appropriate to a specific context, audience, and/or purpose.
4. Exchange ideas effectively with an audience.
5. Assess the product/presentation, including feedback from readers or listeners.

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Quantitative and Computational Thinking

Creative engagement with the world by the manipulation of precisely defined symbolic representations. Quantitative thinking is the formulation of questions that can be addressed using mathematical principles, leading to answers that include reliable and usable measures of accuracy. Computational thinking is the ability to conceive meaningful, information-based representations of the world that can be effectively manipulated using a computer. Courses or course sequences addressing this outcome must meet a majority of the learning indicators. Only the combination and integration of quantitative and computational courses will serve to meet this learning outcome.

**Credit hours:** 9 credits—9 Foundational + 3 advanced/applied

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**Indicators of Learning**

1. Explain the application of computational or quantitative thinking across multiple knowledge domains
2. Apply the foundational principles of computational or quantitative thinking to frame a question and devise a solution in a particular field of study.
3. Identify the impacts of computing and information technology on humanity.
4. Construct a model based on computational methods to analyze complex or large-scale phenomenon.
5. Draw valid quantitative inferences about situations characterized by inherent uncertainty.
6. Evaluate conclusions drawn from or decisions based on quantitative data.
Core Outcomes

Reasoning in the Natural Sciences

Involves the acquisition of the detailed knowledge of one or more of the natural sciences, hands-on experience with how science is conducted, what science can and cannot tell us about the universe, and the relationship between science and society. Courses or course sequences addressing this outcome must meet a majority of the learning indicators.

**Credit hours:** 6 credits (with an additional 2 lab credits for students in some majors)

**Indicators of Learning**

1. Explain the foundational knowledge of a particular scientific discipline.
2. Apply principles and techniques of scientific inquiry.
3. Evaluate the credibility and the use/misuse of scientific information.
4. Analyze the reciprocal impact of science and society.

Critical Thinking in the Humanities

This learning outcome involves the interpretation and analysis of texts and other created artifacts to understand ideas, values, and identities in various spatial, cultural, and temporal contexts. Courses or course sequences addressing this outcome must meet a majority of the learning indicators.

**Credit hours:** 6 credits

**Indicators of Learning**

1. Identity fundamental concepts of the humanities.
2. Analyze texts and other created artifacts using theories and methods of the humanities.
3. Interpret texts and other created artifacts with multiple historical, intellectual, and cultural contexts.
4. Synthesize multiple complex sources and create a coherent narrative or argument.
Reasoning in the Social Sciences

Refers to the utilization of quantitative and qualitative methods to explain the behavior and actions of individuals, groups, and institutions within larger social, economic, political, and geographic contexts. Courses meeting this outcome will help students to understand that they are a small part of a larger global community and to engage with diverse individuals, groups, and ideas that have shaped or continue to shape the worlds they inhabit. Courses or course sequences addressing this outcome must meet a majority of the learning indicators.

**Credit hours:** 6 credits

**Indicators of Learning**

1. Identify fundamental concepts of the social sciences.
2. Analyze human behavior, social institutions and/or patterns of culture using theories and methods of the social sciences.
3. Identify interconnections among and differences between social institutions, groups, and individuals.
4. Analyze the ways in which values and beliefs relate to human behavior and social relationships.

Critique in Design and the Arts

This learning outcome involves a hands-on, minds-on approach by which students acquire the intellectual tools for a richer understanding and knowledge of the process, meaning and value of the fine, applied and performing arts and creative design. It recognizes that the creative design process can and should be applied to a broad range of disciplines. Courses or course sequences addressing this outcome must meet a majority of the learning indicators. To meet this learning outcome, students will study the arts and design thinking in two courses: either 1 design and 1 arts course, or 2 integrated courses.

**Credit hours:** 6 credits—3 design + 3 arts, or 6 integrated design and arts

**Indicators of Learning**

1. Identify and apply formal elements of design or the arts.
2. Explain the historical context of design or the arts.
3. Apply interpretive strategies or methodologies in design or the arts.
4. Employ skills, tools, and methods of working in design or the arts.
5. Produce a fully developed work through iterative processes of design or the arts.
Critical Analysis of Identity and Equity in the United States

Explores the ways social identities related to race, ethnicity, gender, gender identity, gender expression, class, disability status, sexual orientation, religion, veteran status, economic status, age, and other socially salient categories and statuses, influence the human condition and experience, with focus on the United States in particular or in comparative perspective.

It recognizes that people in society have had different experiences and opportunities related to social categories, and challenges students to consider their ethical responsibilities to others in that context and in the context of Ut Prosim, to enhance their capacities to be engaged citizens and visionary leaders in an increasingly diverse society. Students will gain self-awareness of how they are situated relative to those around them based on social identities and foundational knowledge of the interactive dynamics of social identities, power and inequity.

Credit hours: 3 credits (may be double-counted with another core outcome).

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Indicators of Learning

1. Analyze how social identities, statuses, space, place, traditions, and histories of inequity and power shape human experience in the United States (particularly or in comparative perspective).

2. Analyze social equity and diversity in the United States (particularly or in comparative perspective) through multiple perspectives on power and identity.

3. Demonstrate how creative works analyze and/or reimagine diversity in human experiences in the United States (particularly or in comparative perspective).

4. Demonstrate how aesthetic and cultural expressions mediate identities, statuses, space, place, formal traditions, and/or historical contexts in the United States (particularly or in comparative perspective).

5. Analyze the interactive relationships between place, space, identity formation, and sense of community in the United States (particularly or in comparative perspective).
The need for students to have knowledge and skills in these areas is crucial to all aspects of their lives. Students will develop the capacity to recognize these concepts as they apply to any discipline, thus helping them to consider and connect various perspectives. Every Pathways course address at least one of the Integrative Outcomes. This infusion of the Integrative Outcomes into general education signals the importance of these concepts to students at Virginia Tech.

**Ethical Reasoning**
Credits hours embedded

**Intercultural and Global Awareness**
Credits hours embedded

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**Ethical Reasoning**

It is the principled evaluation of moral and political beliefs and practices. In today’s complex and diverse world, ethical behavior requires more than just the desire to do the right thing. Foundational learning of ethical theories, issues, and applications provides tools that enable students to deliberate and to assess for themselves claims about ethical issues in their personal, public, and professional lives. Courses addressing this outcome must meet a majority of the learning indicators.

**Credit hours:** This learning outcome will be met in conjunction with Core Outcomes. No extra hours will be necessary.

**Indicators of Learning**

1. Explain and contrast relevant ethical theories.
2. Identify ethical issues in a complex context.
3. Articulate and defend positions on ethical issues in a way that is both reasoned and informed by the complexities of those situations.
Intercultural and Global Awareness

It supports effective and appropriate interaction with a variety of people and different cultural contexts. Considerations of diversity and inclusion are crucial for students in an increasingly complex world. An important application of this learning is the critical analysis of global systems and legacies and their implications for people’s lives and the earth’s sustainability. Courses addressing this outcome must meet a majority of the learning indicators.

**Credit hours:** This learning outcome will be met in conjunction with Core Outcomes. No extra hours will be necessary.

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### Indicators of Learning

1. Identify advantages and challenges of diversity and inclusion in communities and organizations.
2. Interpret an intercultural experience from both one’s own and another’s worldview.
3. Address significant global challenges and opportunities in the natural and human world.

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Rationale for Credit Hours Required

The plan for Pathways is projected at 45 hours, which is necessary for students to accomplish breadth and depth they need for their current lives as students and their future lives as professionals, citizens, and family members. With the new focus on learning outcomes, however, students will be able to meet some of the outcomes in their major.

In the Pathways curriculum, some course work may meet more than one outcome. Although double-counting of courses will be possible, the goal of general education will still be to provide a breadth of experience for students across disciplines. A review of current major check sheets indicates that the new requirement for hours will not delay time to degree.

Essentially, the learning outcomes and associated hours assure that every Virginia Tech student has the opportunity to meet these outcomes. Some may already be meeting an outcome in a course required in the major, but others may not have that opportunity.
**Frequent Asked Questions**

1. **What is the purpose of the Pathways to General Education?**
   
   See the statement of purpose / Pathways Principles on page 6.

2. **What unifies courses in Pathways?**
   
   The subjects of Pathways courses vary by discipline, but they are unified by adhering to the Pathways principles of Integration, Inclusivity, and Relevance.

3. **Is there any way I can be exempt from meeting these requirements?**
   
   No, all students must complete the requirements of Pathways.

4. **How many credits are required?**

   45.

5. **Are the Pathways requirements the same in all majors and colleges at Virginia Tech?**
   
   Yes, all students must complete all Pathways requirements. However, the courses recommended (or required) to meet these requirements will vary by major.

6. **How do I choose among Pathways courses?**
   
   Talk to your advisor to find which courses best extend on your past experiences, complement your major coursework, help meet your life goals, and satisfy your personal interest.

7. **Where do I go to obtain more information about the Pathways to General Education requirements for my college or department?**
   
   Your academic advisor, the undergraduate office of your college, and the Undergraduate Catalog are the best sources of information. You should always consult your advisor when planning your program of study.

8. **May I use Advanced Placement credits to meet Pathways requirements?**
   
   Yes, consult the AP, IB, and CLEP credit guide on the Registrar’s website.

9. **If I am a transfer student, must I complete the Pathways to General Education requirements?**
   
   It depends. If you are transferring with a completed associate’s degree from a Virginia institution, then you can consider the requirements met. However, in any other circumstance, you will be required to complete any remaining requirements not met through transfer credit.

10. **While enrolled at Virginia Tech, may I take Pathways to General Education courses at another college or university and transfer them here?**
   
   Yes, please consult the course transfer database at the Registrar’s website. In addition, if you are a prospective student, consult with the Office of Admissions for more information. If you are a currently enrolled student, please consult your advisor.

11. **Should I take only Pathways courses in the first year?**
   
   This varies greatly student-to-student. Please consult with your advisor to lay out the best plan for completing your requirements.

12. **How long does it take to complete the Pathways requirements?**
   
   This varies greatly student-to-student. Please consult with your advisor to lay out the best plan for completing your requirements.

13. **I’ve heard of something called “Satisfactory Progress.” How does this relate to Pathways?**
   
   For further information, be sure to see “Student’s Responsibility - Satisfactory Progress Toward Degree” in the Undergraduate Catalog. Departments also set criteria for satisfactory progress within their majors; students should check with the department or their advisor.
14. Do I need to plan the whole Pathways program at once?
No, but you should be thinking about which courses you would like to take from each outcome (see worksheet at pages 17 and 18). Look over the options for each outcome to see which courses interest you most—keeping in mind the specific requirements of your major and the fact that not all Pathways courses are offered every term. You may also consider enrolling in a Pathways Minor or pursuing an Alternative Pathway as a means of completing a portion of your Pathways requirements. Your advisor can help you.

15. Who teaches the Pathways courses?
Members of all faculty ranks participate in the development and instruction of Pathways classes.

16. Can I take Honors Courses to satisfy CLE requirements?
Yes, please consult the timetable and your advisor to see which courses and experiences qualify for Pathways credit.

17. What if I don’t get a Pathways course that I requested?
Consult with your advisor to find another time to take it or another course that will satisfy the requirement.

18. What if the second course in a sequence is not offered during the semester in which I want to take it?
Consult with your advisor to make a plan to complete the second course in the sequence.

19. May I take additional Pathway courses, even if I have completed the requirements?
Yes as long as you are also making adequate progress toward completing your degree.

20. Does the university have a foreign language requirement?
Yes, please consult the admissions website to learn more about the foreign language requirement.

21. Can some Pathways requirements be fulfilled through study-abroad programs?
Yes, carefully review the literature related to the study abroad experience to see if it already has Pathways credit attached. Otherwise, consult your advisor (and a faculty mentor) about ways to get a study abroad experience to count for Pathways credit.

22. Can Pathways courses count toward more than one area simultaneously?
No. The only exception is the Identity and Equity in the United States Outcome. In this case, one course can count toward this and another core outcome simultaneously.

Access Pathways Resources webpage
www.pathways.prov.vt.edu/resources.html
# Pathways Preferences Worksheet

## Discourse

6 credit hours of approved Foundational Discourse courses  
Additional College Requirements:

(3) __________________________________________  
(3) __________________________________________

3 credit hours of Advanced/Applied Discourse  
(3) __________________________________________

## Critical Thinking in the Humanities

6 credit hours selected from approved Pathways courses  
Additional College Requirements:

(3) __________________________________________  
(3) __________________________________________

## Reasoning in the Social Sciences

6 credit hours selected from approved Pathways courses  
Additional College Requirements:

(3) __________________________________________  
(3) __________________________________________

## Reasoning in the Natural Sciences

6 or 8 credit hours selected from approved Pathways courses  
Additional College Requirements:

(3) __________________________________________  
(1) __________________________________________  
(3) __________________________________________  
(1) __________________________________________
Quantitative and Computational Thinking

6 credit hours of approved Foundational Quant/Comp courses

(3) ___________________________________________    ___________________________________________
(3) ___________________________________________    ___________________________________________

3 credit hours of approved Advanced/Applied Quant/Comp courses

(3) ___________________________________________   ___________________________________________

Critique and Practice in Design and the Arts

6 credit hours selected from approved Pathways courses

(3) ___________________________________________    ___________________________________________
(3) ___________________________________________   ___________________________________________

Critical Analysis of Identity and Equity in the United States

3 credit hours selected from approved Pathways courses

(3) ____________________________________________    ___________________________________________

Foreign Languages:

Check the Undergraduate Course Catalog for university-wide requirements and for requirements specific to the College of Liberal Arts and Human Sciences and the College of Science (see page 23) and consult with your advisor.
Pathways
A new approach to General Education at Virginia Tech

Pathways General Education is a vibrant, flexible, and innovative general education program. Pathways will guide students to examine the world from multiple perspectives and integrate their knowledge across disciplines and domains of learning through a hands-on, minds-on approach. We are currently on the implementation process, Pathways will roll-out in Fall 2018.

We are relaunching our Facebook page aiming to build community around Pathways and offer further access to resources such as:
- information about Pathways;
- spotlights of pilot courses;
- announcements of upcoming events and deadlines;
- news articles regarding general education.

Like us on Facebook and access many ways to get involved in Pathways.

Office of General Education has a new Facebook page
pathways.prov.vt.edu www.facebook.com/VTGenEd@VTGenEd

Check out our website Follow us on Click to access our FB page

pathways.prov.vt.edu

pathways.prov.vt.edu

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