Pathways Structure

The Pathways Curriculum includes a total of 45 credits over 7 core concepts and 2 integrative concepts. Students choose courses from the different concept categories to fulfill the credit hour requirements.

Some students might pursue a Pathways Minor or an Alternative Pathway as a means of completing a portion of the requirements.

On the following pages, explore the Pathways Minors approved so far.
Pathways Minors

Some students might complete a Pathways Minor to experience the breadth of learning in general education as well as depth and integration through a cross-disciplinary minor program.

Pathways Minors Requirements:
- Include at least 3 core concepts and both integrative concepts
- Include at least 18 credits with a minimum of 6 at the 3000-4000 level
- Include a foundational and capstone experience
- Students completing minor can earn at least 9 Pathways credits

All students undertaking Pathways Minors must still complete the remainder of the Pathways credit hours and concepts not covered by the minor.

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www.pathways.prov.vt.edu/minors
The Biodiversity Conservation Minor evaluates how Earth's resources are being depleted at an increasing rate and how humans are pushing environmental systems to the brink of crisis. Students will consider the biological diversity of the planet and explore how overutilization of animal and plant populations, loss and degradation of habitats in the U.S. and across the world, and pollution play a part in impacting biodiversity.

In addition to professional natural resource and environmental managers, there is a need for an informed populace who can understand and contribute to the conservation of biological diversity within the context of their chosen profession. In this minor, students will take courses that help them gain a global and ethical perspective of environmental issues and discover that economics, policy, and social factors must be considered for effective management of declining resources and wild populations of animals. The capstone class will contribute to developing their inquiry and problem-solving abilities, which will serve them well in whatever professional path they follow.

Who is it for?
This minor encourages interaction by students from a diversity of majors who have a common interest in conserving biodiversity, becoming better informed on issues, and considering solutions to loss of biological diversity. environmental conservation.

Pathways Core Concepts
3 - Reasoning in the Social Sciences
4 - Reasoning in the Natural Sciences
5f - Foundational Quantitative and Computational Thinking

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
**Requirements**

The 18-credit hour minor in Biodiversity Conservation includes 6 hours of required courses, 9 hours of elective courses from 3 categories, and a 3 hour capstone course.

**Required courses**

- FREC 1004: Digital Planet
- FIW 2114: Principles of Fish and Wildlife Conservation
- FIW 4114: Biodiversity Conservation

**Elective courses**

Students select 9 credit hours of elective courses ranging from human dimensions of fish & wildlife, American environmental history, wildlife field biology, fish ecology, and environmental silviculture. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Develop knowledge of geospatial technologies and landscapes critical to effective management of environmental resources.
- Establish a foundation of critical ecological principles, with options to pursue paths in human dimensions and sociology or in natural resources.
- Focus on solving problems related to environmental issues with managing wild animal populations from a global perspective.
- Apply understanding of the human aspects of these issues to knowledge of the ecological nature of global biodiversity loss.

www.pathways.prov.vt.edu/minors

Contact: Dr. Dean Stauffer (dstauffe@vt.edu)
What is it?

Water connects society and the environment through energy, food, climate, ecological, health, and economic systems and is therefore vital for sustaining human life. Issues such as drought, flooding, sanitation, and contamination exist on every continent and touch every citizen on the planet. Sustainably managing water resources is a complex challenge that requires knowledge from a wide range of academic disciplines. The Blue Planet minor is an interdisciplinary program that includes courses from ten departments across Virginia Tech, ensuring that students gain the necessary perspective required to solve the myriad of water problems being confronted by diverse societies.

Why do it?

The interdisciplinary approach used by the minor helps students gain exposure to the technical, societal, and political systems concerning water and sustainability. Students enrolled in the Blue Planet minor will be able to take courses in forest resources and environmental conservation, geography, agricultural and applied economics, landscape architecture, history, environmental science, geosciences, mathematics, English, and urban affairs and planning. Select courses from these departments show the interconnectedness of water policy, planning, science, and sustainability and orients them to a diversity of perspectives for solving water issues.

Who is it for?

The Blue Planet minor will appeal to students from a wide range of disciplines. The water in society specialization will appeal primarily to STEM students and majors, while the science of water specialization will appeal to non-STEM students and majors.

Pathways Core Concepts

3 - Reasoning in the Social Sciences
4 - Reasoning in the Natural Sciences

Pathways Integrative Concepts

Ethical Reasoning
Intercultural and Global Awareness
**Requirements**

The 20-credit hour minor in Blue Planet includes a 3-hour introductory course, 12 hours of one specialization in either water and society or the science of water, 3 hours of elective courses selected from a list, and a 2-hour capstone course on watershed assessment, management, and policy.

**Required courses**

GEOG/WATR 2004: Water, Environment, and Society

ALS/WATR 4614: Watershed Assessment, Management, and Policy

**Elective courses**

Students select 3 credit hours of elective courses, with topics such as environmental law, climate science, seeking sustainability, oceanography, and forest soil and watershed management. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Explore and understand water as a complex integral component of our natural, social, and built environments.
- Choose from interdisciplinary course options as part of a customizable experience, with specializations like water in society and the science of water.
- Collaborate with team members in the capstone course to solve problems facing real-world watersheds with respect to assessment, management, and policy.
- Integrate scientific, engineering, and technological advances with socio-economic factors to identify problems and discuss practical solutions to water supply and quality.
The Civic Agriculture and Food Systems minor embodies a commitment to developing and strengthening an economically, environmentally, and socially sustainable agriculture and food system. This interdisciplinary minor provides students with knowledge and skills to promote academic enhancement, personal growth, and civic engagement through reflection and experiential practice to address and solve ‘real-world’ problems. The minor provides opportunity for interdisciplinary and community-based learning, and active engagement in and outside the classroom.

**Pathways Core Concepts**
- 1a - Advanced/Applied Discourse
- 3 - Reasoning in the Social Sciences
- 4 - Reasoning in the Natural Sciences
- 6d - Critique and Practice in Design & the Arts

**Pathways Integrative Concepts**
- Ethical Reasoning
- Intercultural and Global Awareness
CIVIC AGRICULTURE AND FOOD SYSTEMS

Requirements

The 18-credit Civic Agriculture and Food Systems Pathways minor has 4 required agriculture and life sciences courses (3 credits each).

Required courses

ALS 2204: Introduction to Civic Agriculture
ALS 3404: Ecological Agriculture: Theory and Practice
ALS 4204: Concepts in Community Food Systems
ALS 4214: Capstone: Civic Agriculture and Food Systems

Elective courses

Students select the remaining 6 credits from a list of cross-disciplinary College of Agriculture and Life Sciences departmental courses that complement the minor. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

“The minor challenged my understanding of the world around me and encouraged a more thoughtful, transformative way of thinking. With the support of the Civic Ag Learning Community, I now realize my passions for food justice and for community development work.”
Caylin Stewart, Ag Leadership & Community Education, May 2018
The Community Systems and Engagement (CSE) Minor provides substantive engagement experiences to students by combining community engagement, service learning, and applied problem solving. Students will learn to address persistent community issues through active citizenship and systems thinking competency. They will also have opportunities to work in interdisciplinary teams alongside diverse community partners and institutional stakeholders.

The persistence of ill-structured problems in community settings requires leaders and global citizens prepared to address complex technical and social issues in innovative, informed, and sustainable ways. Students in this minor will discover ways to apply knowledge, experiences, and energies in ways that contribute to the public good. The competencies and skills developed through this minor are transferable to a variety of professional, academic, and civic settings.

Who is it for?
The minor is designed for civic-minded students from any academic major who share a commitment to social justice, community engagement, and applied problem solving.

Pathways Core Concepts
3 - Reasoning in the Social Sciences
5a - Advanced Quantitative and Computational Thinking

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
The 18-credit hour minor in Community Systems and Engagement includes 9 hours of required courses and 9 hours of elective courses selected from a list.

**Elective courses**

Students should select 9 credit hours of elective courses to gain additional exposure to a specific engagement strategy, community, or topic area. Global education, internships, research, or field studies with a community engagement focus are encouraged. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Gain vocabulary and frameworks related to civil action while exploring issues of identity and community engagement from multiple perspectives.
- Learn to assess and critique models of charity, philanthropy, outreach, and engagement.
- Participate in a range of community engagement experiences designed to introduce the breadth and complexity of social issues, civic infrastructure, and community context.
- Advance knowledge of community issues in interdisciplinary teams by working through the identification, specification, and communication of a particular community issue.
At the completion of this minor, students will be able to consume and use data responsibly, ethically, collaboratively, effectively, and efficiently. Such skills are both marketable professionally and useful within personal lives. That is, having data literacy is essential for living productive and healthy lives in the 21st century.

This minor is intended to teach all students, regardless of quantitative skills, interests, and major, and provide the opportunity to learn and apply fundamental concepts related to data and decisions.

Pathways Core Concepts
1a - Advanced/Applied Discourse
3 - Reasoning in the Social Sciences
5f - Foundational Quantitative and Computational Thinking

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
Requirements

The 18-credit hour minor in Data and Decisions includes 3 hours of introductory restricted electives, 6 hours of core requirements, 6 hours of elective courses selected from a list, and a 3 hour capstone course.

Required courses

CMDA 2014: Data Matter
BDS 2005: Fundamentals of Behavioral Decision Science
BIT/MGT 4854: Analytics in Action

Elective courses

Students select 3 hours of introductory restricted electives, as well as another 6 credit hours of elective courses from topics such as environmental informatics, introduction to remote sensing, social research methods, digital history, data governance, and privacy and ethics. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Get exposure to broad applications of data and decisions methods.
- Practice applying basic math and computational skills that can be used in realistic scenarios.
- Experience and apply analytic tools while also developing field specific expertise.
- Collaborate in interdisciplinary teams to address problems with human and organizational issues.
The Disabilities Studies minor includes a multi-disciplinary curriculum with courses in human development; apparel, housing and resource management; psychology; education; and science, technology, and society. The program will provide students with a multi-disciplinary view of how disability is defined and what barriers to full inclusion are faced by individuals with disabilities.

Ability and disability are an important component of diversity and inclusion. This minor will benefit students preparing for careers where they will be working with people or for people, either directly or through the products and systems they design.

This interdisciplinary minor is available to any student who seeks to broaden their understanding of disability, including how disability and people with disabilities are treated in society and in different academic disciplines. This ranges from students who will become engineers designing equipment to be used by people with disabilities, to teachers who will have students with disabilities in their classrooms, to policymakers considering the best laws and statutes to promote inclusion.
Requirements

The 21-credit minor in Disabilities Studies requires 5 courses from different departments in the College of Liberal Arts and Human Sciences and 2 elective courses (3 credits each).

Required courses

HD 1134: Introduction to Disabilities Studies
HD 1004: Human Development I - Childhood and Adolescence
STS 3284: Technology & Disability
RED 4664: Universal Design
HD 4714: Senior Capstone Seminar

Elective courses

Students select the remaining 6 credit hours from a list of 3 options, including EDCI 3144: Education of Exceptional Learners, PSYC 3014: Abnormal Psychology, and PSYC 3034: Psychological Disorders of Children. However, PSYC 3014 requires students to complete either PSYC 1004 or PSYC 2004 prior to enrollment.

The order of courses listed here is the suggested (but not required) sequence, with two electives taken after completion of HD 1134 and HD 1004, but before HD 4714.
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.

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.

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**
- 4 - Reasoning in the Natural Sciences
- 5f - Foundational Quantitative and Computational Thinking

**Pathways Integrative Concepts**
- Ethical Reasoning
- Intercultural and Global Awareness
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
Contact: Eric Wiseman (pwiseman@vt.edu)
Students in the Event and Experience Management minor explore the interaction of human beings, technology and the environment within the event management context. Students will consider and evaluate interconnections between place, culture, and environment in the context of the planning and implementation of a wide range of events.

Housed in the #6 internationally-ranked Hospitality and Tourism Management Department that currently enjoys a 94% placement rate for its graduates, this minor will utilize an interesting and relatable framework (event and experience management) to address many issues important to both students and the larger society, including race, religion, culture, cross-cultural communication, and the environment. Students will be provided with hands-on learning experiences at every step, enhancing employment opportunities to students from different majors.

The cross-disciplinary minor will provide an opportunity for students majoring in Hospitality and Tourism Management looking to specialize in a specific career path, as well as students from a broad range of majors. Both audiences will gain organizational, design, technical, ethical, and logistics skills. They will also learn to plan and implement events which are sensitive to both potential attendees and the host community.

Pathways Core Concepts
5 - Advanced Quantitative and Computational Thinking
6ad - Critique & Practice in Design and the Arts
7 - Critical Analysis of Equity and Identity in the United States

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
The 18-credit hour minor in Event and Experience Management includes 9 hours of required foundation courses, 6 hours of elective courses selected from a list, and 3 hours of a required Capstone course.

**Required courses**
- HTM 3424: Event Management
- HTM 4354: IT and Social Media in Hospitality & Tourism Management
- HTM 4434: Event and Experience Management

**Elective courses**
Students select 6 credit hours of elective courses from either the event sales track or the event management track, with the potential for exploration of topics such as hospitality sales, multicultural communication, design appreciation, catering management, winery tourism, and the dynamics of leadership. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.
What is it?

Any student at Virginia Tech can put Ut Prosim into action by completing the Minor in Global Business Practices to Improve the Human Condition. Through experiences in this interdisciplinary minor, students will **learn how to address societal issues using sound business practices in an international setting.**

Why do it?

Business practices can act as a catalyst for change. Benefit from learning to **understand global societal issues and the awareness and application of business practices which can be used to foster social change and improve prosperity**. Integrate knowledge and awareness gained throughout this minor into a capstone course, and then apply that knowledge to a small community project with an international component.

Who is it for?

The minor in Global Business Practices to Improve the Human Condition is open to **all interested students with a GPA of at least a 2.0.**

Pathways Core Concepts

- 3 - Reasoning in the Social Sciences
- SF - Quantitative and Computational Thinking
- 7 - Critical Analysis of Equity and Identity in the United States

Pathways Integrative Concepts

- Ethical Reasoning
- Intercultural and Global Awareness
Required courses

Students select 6 credit hours of elective courses from one of two tracks, with course topics such as multicultural communication, international management, community service learning, economic justice, sustainable urbanization, and social entrepreneurship. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Elective courses

Students select 6 credit hours of elective courses from one of two tracks, with course topics such as multicultural communication, international management, community service learning, economic justice, sustainable urbanization, and social entrepreneurship. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Think analytically about global issues through a cultural lens.
- Apply analytical thinking skills to these issues using sound business practices.
- Build knowledge and understanding of social change and prosperity at home and abroad.
- Design a project in collaboration with stakeholders using analysis and recommendations grounded in business practices that will improve the human condition.

www.pathways.prov.vt.edu/minors
Contact: Jennifer Clevenger (jcleveng@vt.edu)
The Global Food Security and Health minor is an interdisciplinary program that explores the biophysical, technological, and institutional drivers that contribute to global food security and population health. The minor also provides students with directed, internationally-oriented experiential learning opportunities, such as study abroad, undergraduate research, internship, or service-learning placement.

Build knowledge and skills to understand the interrelationships among the behavioral, economic, social, cultural, political, biophysical, institutional, and technological drivers of current and future global food security for populations. This minor enables students to act as ethical global citizens to support the resilient and sustainable globalized food and agricultural systems. Throughout the curriculum, students will gain insight into negotiating complex problems through group work, case studies, and critical thinking.

Students with interests in agriculture, business, international studies, policy, and public health. This minor will effectively prepare students for governmental and non-governmental careers focused on some of the most important global challenges of the current century.

Pathways Core Concepts
1a - Advanced/Applied Discourse
3 - Reasoning in the Social Sciences
4 - Reasoning in the Natural Sciences

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
GLOBAL FOOD SECURITY AND HEALTH
PATHWAYS MINORS

Requirements

The 19-credit minor in Global Food Security and Health requires 13 credit hours of coursework and 6 credit hours minimum of restricted electives. Of the 13 credit hours required, 12 are Pathways courses.

Required courses

- AAEC 1005: Economics of the Food and Fiber System or ECON 2005: Principles of Economics
- CSES 2244: Agricultural Global Food Security and Health
- AAEC 3204: International Agricultural Development and Trade*
- ALS 4244: Capstone: Global Food and Security
- ALS 2964: Field Study or ALS 3954: Study Abroad -or- ALS 4994: Undergraduate Research

* prerequisite: AAEC 1105 -or ECON 2005

Elective courses

Students select the remaining 6 credit hours from an interdisciplinary list of restricted electives. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Learn to act as ethical global citizens to support resilient and sustainable globalized food and agricultural systems. Build knowledge and skills to understand the interrelationships among issues in global food security and promote health. Participate in an experiential learning opportunity designed for the VT shaped student by studying abroad, pursuing research, working in the field, or serving the community.
The Innovation minor provides a core sequence of classes with opportunities to practice innovative problem-solving skills, as well as elective credits for students to pursue their personal interests. This minor also fills a unique niche by helping students expand their entrepreneurial ideas through customer discovery and business model activities. At the end of the minor, students will have a capstone opportunity to unite their skills in innovation with what they have learned in their major.

The complex issues facing our world today require innovative problem definition and problem-solving skills, as well as working with people from different backgrounds and experiences. Employers are looking for graduates who can think creatively and bring new perspectives to their projects, making this minor an important career-building opportunity for both students seeking to start their own companies and those who wish to pursue jobs at existing organizations.

Who is it for?
The Innovation minor is for STEM majors and non-STEM majors alike who want to develop their innovative thinking skills in an interdisciplinary context.

Why do it?

Pathways Core Concepts
2 - Critical Thinking in the Humanities
3 - Reasoning in the Social Sciences
6d - Critique and Practice in Design and the Arts

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
Requirements

The 18-credit hour Innovation minor includes 9 hours of required courses and 9 hours from a list of electives (3 credits each).

Required courses

STS 2254: Innovation in Context
ENGE 2094: Create! Ideation for Innovation
MGT/ENGE/IDS 4094: Commercialization of Innovation

Elective courses

Students complete the elective courses by selecting a minimum of 9 hours from an approved list of courses. Some of these courses are Pathways courses that can help students earn general education credit beyond the minor’s required courses. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Gain a critical perspective on the topic of innovation by using creative inquiry, design, and collaboration. Explore innovation at the nexus of arts, science, technology, and design. Develop an emphasis within the minor. Participate in a capstone experience that involves innovations, technologies, intellectual property, and market opportunities in partnership with area businesses. Work with actual inventors, engineers, scientists, entrepreneurs, advisors and other potential collaborators.
Language is arguably the distinguishing feature of humans. Linguistics is the scientific study of natural language, and the term “language sciences” encapsulates more broadly how this empirical approach to understanding language structure and usage is implemented in a variety of disciplines. Students who finish this minor will not only understand the fundamental pieces and social significance of language, but they will also learn how to conduct and evaluate different types of research.

Language is connected to any field which involves human interactions. It is equally crucial to developing engineering solutions and cognitive models of behavior, as it is to understanding power structures and describing stylistic repertoires. The minor should therefore complement any degree, and the built-in flexibility allows students to build a minor that connects language directly to their primary major(s).

Who is it for?

This minor has special relevance for many majors, such as pre-education, pre-law, foreign languages, computer science (with an interest in Natural Language Processing), psychology majors, human development, industrial systems engineering (auditory interfaces), electrical engineering (speech synthesis), sociology majors (language and power), and neuroscience majors.

Pathways Core Concepts

3 - Reasoning in the Social Sciences
5a - Advanced Quantitative and Computational Thinking

Pathways Integrative Concepts

Ethical Reasoning
Intercultural and Global Awareness
The 18-credit hour Minor in Language Sciences includes 9 hours of core courses and 6 hours of elective courses selected from a list, as well as a 3-hour language sciences capstone course.

**Required courses**

ENGL 1504: Introduction to Contemporary Linguistics
ENGL 4084: Conducting Research in the Language Sciences

**Elective courses**

Students select 6 credit hours of elective courses, with topics such as language and mind, languages of Native America, multicultural communication, Spanish phonetics and phonology, and independent study. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

- Explore the various subfields of linguistics, with a focus on language structure.
- Examine variation in language that patterns with social factors.
- Evaluate language from different disciplinary perspectives.
- Learn about different motivations for language research as well as different theoretical and methodological approaches to studying language.
- Develop skills to perform an advanced investigation of linguistic structures.
The minor in Organizational Leadership is a cross-disciplinary undergraduate minor that provides a strong business foundation for organizational leadership. The minor is focused into four tiers that build on one another, including leadership in context, learning to be a leader, leadership in action, and advancing leadership.

The minor will develop students’ leadership capabilities and equip them with the knowledge and skills needed to successfully lead in business and professional contexts. It offers a leadership model focused on organizational resiliency, setting it apart from other leadership programs on campus.

Anyone with an interest in leadership within organizations! With options for individual customization, the Organizational Leadership minor is flexible enough to address the differing needs of students from different departments and colleges at Virginia Tech based on their specific interests and career goals.

Pathways Core Concepts
2 - Critical Thinking in the Humanities
3 - Reasoning in the Social Sciences
6 - Critique and Practice in Design & the Arts

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
The four-tier minor in Organizational Leadership requires a minimum of 18 credit hours. This includes a required 3-credit introductory course for Tier 1 (Leadership in Context), 9 credits from a list of interdisciplinary elective options for Tier 2 (Learning to Be a Leader), 3-credit experiential activity for Tier 3 (Leadership in Action), and the required 3-credit capstone course for Tier 4 (Advancing Leadership).

**Required courses**

- MGT 2354: Leadership for Managers and Entrepreneurs*  
- MGT 4964: Leadership Field Study (MGT 3064: Cornerstones Entrepreneurship or MGT 4084: Management Consulting can also count)  
- MGT 4354: Leadership: Advanced Skills and Concepts**  

* sophomore standing required  
** prerequisite: MGT 2354 and senior standing required

**Elective courses**

Students select the remaining 9 credit hours of elective courses from 4 different areas, including creativity and innovation; intercultural communications; critical and strategic thinking skills; and holistic thinking and ethical reasoning. Students may choose multiple courses within the same area. These courses should complement students' majors and develop skills that they might not necessarily encounter in their major courses. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Application to the minor in Organizational Leadership is open to all VT students with at least a 2.5 GPA and at least 24 semester hours at VT.
Set in a student-centered learning community, the Pathways to Sustainability minor begins with an introductory two-course series focused on **systems thinking across natural, social, and economic contexts**. This is followed by elective courses in the domains of **humanities, environmental science, and art and design**, in addition to an integrative capstone course.

**What is it?**

Students need an **expansive, multi-college conceptualization of sustainability and complementary set of tools and strategies** to empower them to lead in a diverse, interconnected and dynamic world. This minor integrates perspectives and tools from natural and social sciences with those from art, design, and humanities.

**Why do it?**

The primary audience for this minor includes **STEM and professional majors**. However, majors outside STEM fields will also benefit from the **broad interdisciplinarity** of this minor.

**Pathways Core Concepts**

2 - Critical Thinking in the Humanities  
3 - Reasoning in the Social Sciences  
4 - Reasoning in the Natural Sciences  
6 - Critique and Practice in Design and the Arts

**Pathways Integrative Concepts**

Ethical Reasoning  
Intercultural and Global Awareness

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PATHWAYS TO SUSTAINABILITY

Requirements

The 18-credit hour minor in Pathways to Sustainability includes 9 hours of required courses and 9 hours of elective Pathways courses selected from a list.

Required courses

GEOG/NR 1115: Seeking Sustainability I
GEOG/NR 1116: Seeking Sustainability II
GEOG/NR 4444: Practicing Sustainability*

*prerequisite: GEOG/NR 1116

Elective courses

Students select 9 credit hours of elective Pathways courses in 3 categories (humanities, environment, and art & design). For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Identify interconnections and dynamics between social institutions, environmental systems, and economic processes. Discover, comprehend, and analyze information from diverse sources within multiple historical, intellectual, and cultural contexts. Analyze the ways in which values and beliefs affect human behavior. Synthesize complex sources to create a cohesive narrative argument. Apply interpretative strategies or methodologies in design and/or the arts. Develop content appropriate to specific audiences and purposes.

www.pathways.prov.vt.edu/minors
Contact: Dr. Timothy Baird (tbaird8@vt.edu)
PHILOSOPHY, POLITICS, AND ECONOMICS

What is it?
The minor in Philosophy, Politics, and Economics trains 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. In addition, since the minor involves twelve departments in seven colleges on campus, it teaches students to apply knowledge from the humanities and social sciences in different fields.

Why do it?
Our world is characterized by complex individual and collective decision-making problems that often cut across the boundaries of academic disciplines. The PPE minor trains students to address such interdisciplinary decision-making problems in our globalized world. It enables students to make decisions that are not only economically sound, but also socially, ethically, and politically informed.

Who is it for?
This minor is ideal for anyone interested in learning more about concepts in philosophy, politics, and economics. STEM students needing to take classes focused on Advanced Discourse, Critical Thinking in the Humanities, or Reasoning in the Social Sciences might be particularly interested in the PPE minor. Non-STEM students might also be interested because the concepts explored in this minor will complement different majors across the curriculum.

Pathways Core Concepts
1a - Advanced/Applied Discourse
2 - Critical Thinking in the Humanities
3 - Reasoning in the Social Sciences

Pathways Integrative Concepts
Ethical Reasoning
Intercultural and Global Awareness
Requirements

The 18-credit minor in Philosophy, Politics, and Economics requires a 3-credit gateway course and a 3-credit capstone course. In addition, students pursuing the minor complete 12 credit hours of electives in core and applied areas.

Required courses

PHIL/PSCI/ECON 2894: Introduction to Philosophy, Politics, and Economics
PHIL/PSCI/ECON 4884: Advanced Topics in Philosophy, Politics, and Economics

Elective courses

Students complete 9 credits of core area electives (3 each in philosophy, political science, and economics) and 3 credits of an applied areas elective course (in one of the following areas: business; engineering; public and international affairs (SPIA); geography; agriculture and applied economics; or fish, wildlife, forest, and environmental conservation). For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Students are strongly advised to take one elective course in each of the core areas of the PPE minor before they take the PHIL 2894 gateway course. At least one elective course must be taken at the 3000-4000 level. The PPE gateway course must be taken before the PPE capstone course, which is the final course in the minor sequence.
The STL minor centers on the intersection of science, technology, and law in a global economy driven by knowledge, technology, and innovation. A primary objective of the minor is for students to be able to **identify and discuss broad scientific problems, in addition to social and ethical issues.** Courses connect “intellectual creations” (i.e. ideas, inventions, new technologies, etc.) to all facets of intellectual property (IP) law, including patents, copyrights, trademarks, and trade secrets. Related challenges in areas ranging from bioethics to the internet are considered in context.

### Pathways Core Concepts

1a - Advanced/Applied Discourse  
2 - Critical Thinking in the Humanities  
3 - Reasoning in the Social Sciences

### Pathways Integrative Concepts

- Ethical Reasoning  
- Intercultural and Global Awareness

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**What is it?**

Students will find the STL minor equips them with **legal and philosophical tools** while fostering **multi-disciplinary analytical skills and critical thinking abilities.** The minor includes opportunities to meet and interact with lawyers, IP professionals, inventors, researchers, and scholars. It will also prepare students to become “citizen-engineers/scientists” who can succeed on multiple career paths.

**Who is it for?**

The STL minor is meant for any **student in any major** and will provide a **deeper understanding of intellectual property and the crucial role it plays in today’s economy.** Courses in the minor will highlight IP issues encountered by students on a regular basis (e.g. downloading songs from the internet, sharing photos via social media, engaging in undergraduate research opportunities, signing employment contracts, etc.).
The STL minor has helped students start careers in Intellectual Property positions at Fortune 500 companies, such as IBM and US Gypsum Corp, and in key government agencies, such as the US Patent and Trademark Office. Other students who completed the minor have been accepted to top law schools, including NYU, Emory, and UVA.
This multidisciplinary minor demonstrates how strategic communication works in a variety of industries, exposing students to the core foundation of strategic communication as a process that involves communication, graphic design, and finance. Students will use their foundational experiences to analyze and examine specific areas of communication (e.g. corporate communications).

The communication industry presents many opportunities to integrate multiple areas of learning. This minor prepares students for the reality that, in the growing 21st century workforce, there are few jobs that have no communication components to them.

The Strategic Communication minor targets students from across multiple majors. STEM majors who do not have a focus on discourse, critical thinking in the humanities, or critique and practice in design and the arts as part of their major might be particularly interested in this minor. Non-STEM majors might also be interested in this minor as it will complement their own majors’ curriculum.

Pathways Core Concepts

1f - Foundational Discourse  
1a - Advanced/Applied Discourse  
3 - Reasoning in the Social Sciences  
5f - Foundational Quantitative and Computational Thinking  
6d - Critique and Practice in Design and the Arts

Pathways Integrative Concepts

Ethical Reasoning  
Intercultural and Global Awareness
Requirements

The 18-credit Strategic Communication minor requires 4 foundational Pathways courses, an upper level elective course in the minor, and a capstone course (3 credits each).

Required courses

COMM 1016: Communication Skills * -or- COMM 2004: Public Speaking
COMM 2044: Principles of Public Relations

* prerequisite: COMM 1015

AHRM 1014: Introduction to Design for Consumers
ACIS 1004: Accounting Foundations
COMM 4404: Capstone Topics in Strategic Communication

Elective courses

Students complete the 3 remaining elective credits by choosing from an approved list of upper level courses in the minor. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Use foundational experiences in interdisciplinary courses to examine and analyze the process of strategic communication. Explore issues in specific areas of communication through upper level communication courses. Participate in a capstone experience that is limited to students in the minor. Engage with students who share the same foundational course experiences but have differences in their upper-level elective courses in the minor.
The interdisciplinary Visual Arts and Society minor leads students to explore art as a lens through which to view society. Through both study and practice-based approaches in studio art, it encourages the cultivation of visual intelligence that is relevant to our increasingly visual, media-saturated world and facilitates the development of skills demanded in a variety of STEM and humanities fields. Students learn flexible visual skills and how to apply them to multiple disciplines inside and outside their major, such as business, medicine, law, and the natural sciences. The result is a comprehensive understanding of art and the built environment in a global context, as they intersect with the complexities of historical and contemporary society.

Students will gain a comprehensive understanding of the role of the visual arts in society as a space for tolerance and reflection, but also as an agent of knowledge and authority. Opportunities to develop skills in visual literacy and composition; critical analysis of sensory experience; prototyping ideas through material and iterative design; and creating solutions to complex, open-ended questions.

The minor’s inclusive curriculum will enrich any major by providing students with a deeper understanding of visual culture in global society and their place in it. In particular, one target audience is STEM majors who might not be engaged with the arts and social sciences within their major program.

**Pathways Core Concepts**
- 2 - Critical Thinking in the Humanities
- 3 - Reasoning in the Social Sciences
- 6 - Critique and Practice in Design and the Arts

**Pathways Integrative Concepts**
- Ethical Reasoning
- Intercultural and Global Awareness
The 18-credit Visual Arts and Society Pathways minor has 4 required art courses (3 credits each).

**Required courses**

- ART 1104: Language of Visual Arts
- ART 1004: Topics in Studio Art for Non-Majors
- ART 2385: Survey of the History of Western Art I (Fall only)  
  -or-
- ART 2386: Survey of the History of Western Art II (Spring only)
- ART 4104: Interpretation of Visual Arts*

*with pre-requisite

**Elective courses**

Students select the remaining 6 credits from a list of cross-disciplinary courses that complement the minor. At least 3 credits must be at the 3000-level and higher. For a complete list of elective courses, consult the checksheet at https://registrar.vt.edu/graduation-multi-brief/index1.html.

Customize the minor through diverse and flexible curriculum. Access to courses usually restricted to majors, such as architecture, studio art, and advanced critical theory. Explore a variety of classes as you choose your major. Choose from classes in studio art, art history, sociology, political science, religion and culture, communication, hospitality and tourism management, urban affairs and planning, international studies, and many more.

Webpage: http://www.sova.vt.edu/visualarts_minor/