



The Pathways Community: Living the Mission of General Education

I am continuously inspired by members of the Pathways community.

I am inspired by faculty like Dr. Rebecca Hester (page 2) who is working to bring her own transdisciplinary real-world experiences, perspectives, and passions to students. By developing a Pathways Minor in Displacement Studies, Dr. Hester hopes students will examine their own connection to displacement both globally and right here on the Virginia Tech campus. And as evidenced by this year's Pathways grantees list (page 4), she is not alone in developing exciting and challenging new courses and minors on such timely topics as technology ethics, environmental justice, COVID-19, food, and even death.

I am inspired by instructors like Meg Emori (page 5) who continue to develop new innovative ways to engage students in the classroom, particularly in the virtual environment. Instead of providing students with the typical final exam study guide, Dr. Emori challenged her students to work through digital "escape rooms" to review important biology material while also solving puzzles, placing science in its sociocultural context, and taking a journey around the world.

I am inspired by each of the more than 200 instructors, advisors, administrators, staff, and students who came together for this year's Summer Institute in May (page 7). Through student and faculty panels, plenaries, workshops, and discussion groups, attendees were challenged to face the real, lived experiences of members of our community before taking steps to achieve Inclusive Excellence campus-wide.

I am inspired every time I meet with the Pathways committees (page 9), collaborate with our student interns like Renn Kennedy that support the program (page 8), and sit in on workshops (e.g. Ethical Reasoning Workshop, page 9) surrounded by colleagues that care about our students and improving the learning experience for students.

I'm inspired to do and be better. I hope as you read these stories, you're inspired as well.

Stephen Biscotte

Director of General Education

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○ From the Pathways Community

Engaging the Next Generation of Community Leaders:

Dr. Rebecca J. Hester on why she's developing a Pathways Minor in Displacement Studies

Pathways: Your work has covered a lot of issues: human migration, healthcare inequities, climate change, indigenous communities, and bioethics. Does that broad range of experience influence your approach to teaching, particularly Pathways to General Education?

RH: My undergraduate degree was in Spanish and Portuguese, with a focus on Latin American literature, and my masters and Ph.D. are in politics. I also did a postdoc in Latino studies and then went to work in the medical humanities, teaching at a medical school for five years. Now I teach in Science, Technology, and Society.

As a result, I've studied and worked across many of the humanities and social science disciplines and all of that experience is brought to bear in my scholarship. The issues driving both my research and teaching have to do with who lives long flourishing lives, whose lives are cut short because of injury or illness, and how do our policies and social structures influence that divide. Immigration brings this division into stark relief. So does medicine. I suppose that's why I've gravitated to both.

Pathways: You're working with several colleagues to develop this minor. How did that collaboration happen?

RH: There was a natural affinity between myself, Katrina Powell, Brett Shadle, and Georgeta Pourchot because we were all interested in similar issues. Prior to submitting the Pathway proposal, all of us spent years listening to and working alongside members of the refugee and immigrant communities in Virginia and beyond. Based on all that work, the question became: How do we train the next generation of leaders in immigration and refugee policy so that tangible outcomes result?

The minor is built with the input of community members and puts them in the foreground. We hope to bring them into our classrooms and send our students to work alongside them in the community. One of the beauties of the Displacement Studies minor is that it speaks to the mission of a land-grant university; it's responsive to the needs of Virginia and the rest of the country.

Pathways: Do you have any advice you could share with faculty who are either considering creating a Pathways Minor or who have received a grant and are in the process of developing one?

RH: My advice would be to build your minor in a way that it is responsive to the most pressing global needs, not just the latest job market trends. I know that students will need a job once they leave Virginia Tech, but if we want them to truly live the motto of *Ut Prosim*, then they should be taught to respond to the needs of humanity and not the market. A Pathways Minor is an excellent way to build a curriculum that does this kind of important pedagogical work.



“

I hope our students will not only get a deep understanding of the history and forces that are driving human migration and displacement, but a sense of empathy when confronted with the issue.

”

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Pathways: What do you hope students will get out of this minor?

RH: If we do our job well, then they will also understand how they are each connected to displacement. For example, the Tutelo and Monacan people had to be displaced in order for Virginia Tech to be built.

The fact is human migration is only going to increase. Climate change, government policies, corporate greed, military conflicts, poverty, and disease are all contributing to a growing number of displaced people around the world. And almost half of them are children.

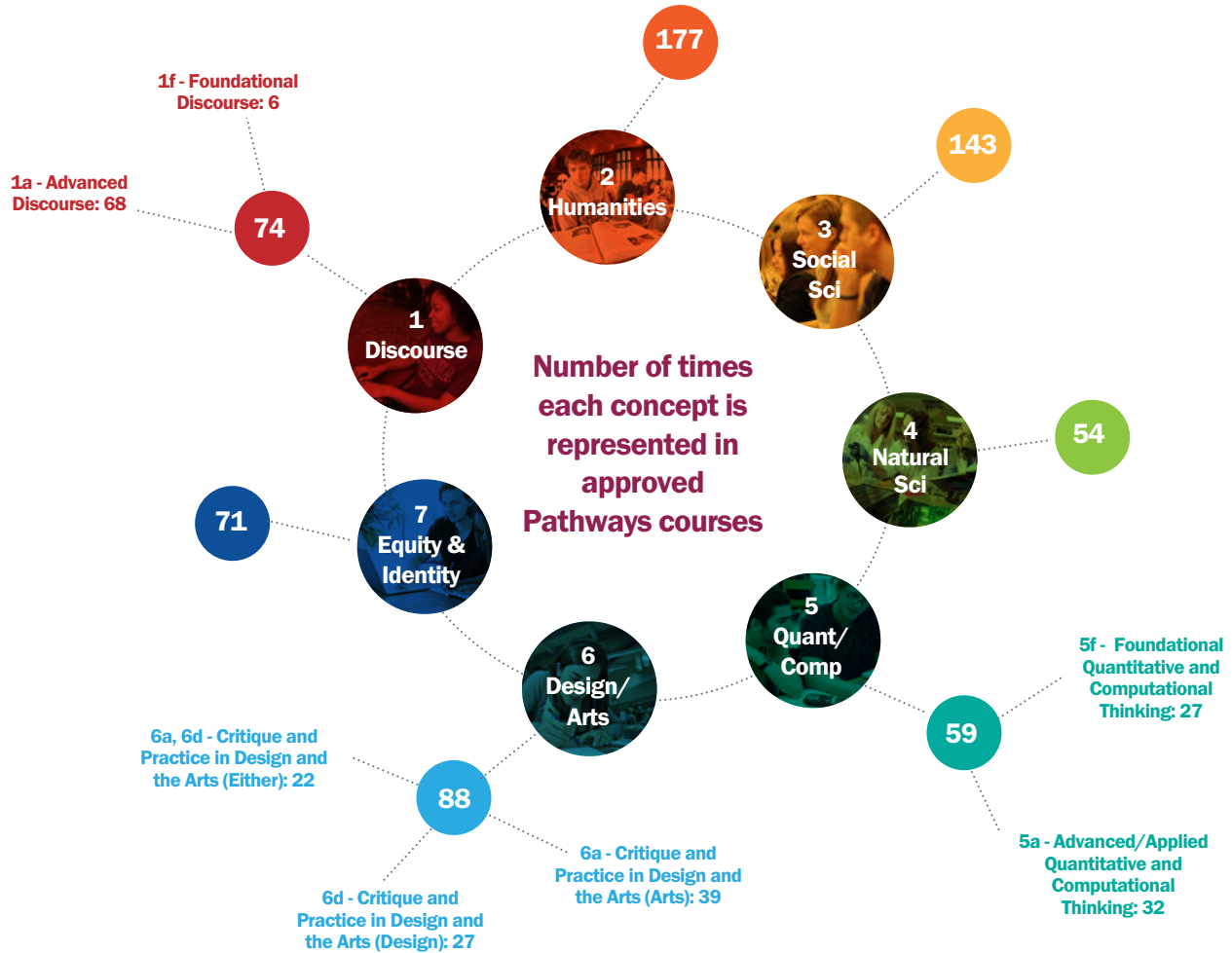
We felt we needed to expand the educational offerings at the Virginia Tech campus about these issues. Hopefully students will also get involved in their own communities. Even if their involvement does not feel directly related to their chosen careers, the fact is we all have some connection to displacement.

Dr. Hester is an assistant professor in the Department of Science, Technology, and Society and a founding member of the Center for Refugee, Migrant, and Displacement Studies. She is also the author of the forthcoming book, Embodied Politics: Indigenous migrant activism, cultural competence, and health promotion in California, published by Rutgers University Press.



Innovation in Teaching & Learning

More than 600 courses have been approved for Virginia Tech students, providing a range of relevant, interdisciplinary courses for our undergraduates to meet their general education requirements.



There are now 27 Pathways Minors available to Virginia Tech students.

- Adaptive Brain and Behavior
- Appalachian Cultures and Environments
- Biodiversity Conservation
- Blue Planet
- Civic Agriculture and Food Systems
- Climate and Society
- Data and Decisions
- Disabilities Studies
- Ecological Cities
- Ecosystems for Human Well-Being
- Event and Experience Management
- Global Business Practice to Improve the Human Condition
- Global Food Security and Health
- Health Communication
- Housing and Society
- Innovation
- Integrated Security
- Language Sciences
- Materials in Society
- Organizational Leadership
- Pathways to Sustainability
- Peace Studies and Social Justice
- Philosophy, Politics, and Economics
- Strategic Communication
- Science, Technology, and Law
- Technology, Humans, and Environment
- Visual Arts and Society

From the Pathways Community

Flipping the Script: Digital escape rooms as teaching tools



A slide from Meg Emori's digital escape room mixing several disciplines and topics.

When Virginia Tech shifted to online teaching during the Spring 2020 semester, biology instructor Meg Emori found herself in a situation that would become familiar for the university's students and faculty.

After traveling home, the 240 students in Emori's Principles of Biology class were spread across 11 time zones, from California to the United Arab Emirates. Seemingly overnight, there was no one place or time to reach them. And as the weeks passed, she could see the effect time spent online was having on her students.

"By the end of the semester, I knew my students were burned out and barely keeping their heads above water," said Emori. "How could I keep their attention to review for their final?"

Her response was both creative and unexpected; build a digital escape room that would guide students through the coursework.

"I'd read journal articles about using escape rooms as a teaching tool, plus 'gamification' was a big trend when I started at Virginia Tech," said Emori. "I wanted to experiment with the idea."

Escape rooms, often used for entertainment or team building, involve working against the clock to solve puzzles and find clues that help participants "unlock" the exit. Emori wondered if one could be created online as an engaging way for her students to review for their final exam. When travel restrictions stranded her parents in Blacksburg, providing help with child care and meals, she had time to develop her idea.

Rather than focusing on single subjects, Emori wanted the experience to be a first-person, guided trip across a landscape mixing questions about cultures, ecosystems, and plant and animal biology. Plus, it needed to reflect the current social justice movements.

"I've been involved in diversity work on campus for several years and this was all happening during the George Floyd protests, which were forcing all of us to consider some of the systemic problems in our country," said Emori. "It was eye-opening to realize some of my own biases when I put together this information."

Too often scientific discovery is depicted as happening in North America or Europe and the rest of the world is "exotic" and awaiting discovery, Emori thought. She wanted to "flip the script" and tell the story of the unique adaptations and innovations in a range of cultures and places.

For example, one slide or "escape room," was set in the Andes Mountains and asked questions about the 500-year-old Inca roads and how the empire's descendants have a unique adaptation for pulling oxygen from their hemoglobin which allows them to live at high elevations without getting altitude sickness. Other questions addressed the shrinking Pastoruri Glacier and sexual dimorphism in Peru's national bird.

The end product - nine "rooms" with about 150 questions - was created using PowerPoint and Canvas and fit neatly into Pathways principles of integration, inclusivity, and relevance. If biology was the entry point, as students answered all the questions and "escaped" to the next "room," they would see the interconnectedness of science, culture, history, and geography. Complete all of them and they received 10 points of extra credit towards their final grade.

After the semester, 65 percent of the 185 students who responded to the survey said the review materials were "fun, engaging, and would like to see more of this format." Based on that success, Emori used the digital escape room this spring and plans to continue in the future.

"I haven't done research since getting my Ph.D. but I really enjoyed getting to investigate and immerse myself in research and journals again," said Emori. "It was a chance to let myself play, I felt like I took a mini-sabbatical to get a global perspective on these topics."

"For anyone interested in building a digital escape room for their students, I'd recommend starting small and thinking globally," she added. "And don't be intimidated by the technology, with a little flexibility and creativity, you can overcome those barriers."

The Pathways Grants for the 2021 and 2022 Academic Year

We are pleased to announce this year's recipients of Pathways Grants. The grants are awarded to individuals or teams of faculty members to design or redesign courses and minors. Recipients then work throughout the year as an interdisciplinary cohort to contribute to the university and the dialogue on teaching and learning in general education.

Pathways Grant proposals showcase great ideas for reinventing or reimagining our general education curriculum, and the 2021 cohort represents a wide variety of disciplines.

The 2021 - 2022 Grants for Pathways Courses:

- **Jennifer Russell and Earl Kline:** Thinking in Systems
- **Michelle Stocker and Devin Hoffman:** Age of Dinosaurs
- **David Hicks:** Film/Screen Media and Teaching and Learning Difficult Knowledge and Representations of the "Other"
- **Chelsea Haines Lyles:** Exploring Systemic Educational Inequities Through Service Learning
- **Meagan Weaver and Derek Mueller:** Advanced Composition
- **Steve Trost and Melanie Fox:** Principles of Economics
- **Dina Smith-Glaviana:** Clothing and People
- **Derek Mueller, Stefanie Kinzie, Kayla McNabb, Katelyn Griffin, Julia Feerrar, Lisa Becksford, Tim Becker, Chloe Robertson, Olayemi Awotayo, and Brooke Marton:** First-Year Writing within the Composition Program
- **Jessica Thompson:** Supplemental Course Materials for the Virginia Tech Math Emporium
- **Crystal Lynn Duncan Lane:** Death, Dying, and Bereavement
- **Jennifer Mooney and Alice Kinder:** Appalachian Literature (Revised Course)
- **Ignacio Moore:** Science of Covid-19
- **Ozzie Abaye:** World Crops: Food and Culture
- **Philip Olson:** Technology Ethics

Grants for Pathways Minors and Supporting Courses:

- **Christine Labuski, Shannon Bell, and Cara Daggett:** Environmental and Climate Justice Studies
- **Javiera Jaque and Mauro Caraccioli:** Latinx and Latino American Studies
- **Ozzie Abaye and Peter Ziegler:** Civic Agriculture and Food Systems, Global Food Security and Health, Course: Bridge Experience
- **Anna Zeide:** Food Studies Minor, Courses: Intro to Food Studies, Eating the Other: Race and Food in the US and its Borders, Indigenous Foodways, Food in Asian History, Food Sovereignty, Food and Architecture, Food Politics, Food Writing, Terroir: Product as Place, and Food and Agricultural Technology

Introducing Two New Pathways Minors

The Pathways General Education Curriculum Review Committee approved two new Pathways Minors for the Fall 2021 semester. More information on all 27 Pathways Minors is available at www.pathways.prov.vt.edu/minors.html.

Housing and Society

Housing and Society looks at residential development from a range of perspectives, including its broader impact on people and communities. Multiple disciplines — such as data analytics, economics, social justice, and sustainability — are applied to the interconnected relationship between producers, consumers, and policymakers.

Technology, Humans, and Environment

Technology, Humans, and Environment equips students with the knowledge to understand the growth and potential implications of "smart" technologies integrated into our communities. Coursework will use diverse tools to identify critical issues related to intelligent infrastructure and their design and implementation.

○ From the Pathways Community

The 2021 Summer Institute

Conference offers ‘meaningful dialogue towards actionable change’



Two hundred of Virginia Tech’s faculty, staff, and administration met in May at the 2021 Summer Institute for three days of professional development as the university looked ahead to the Fall 2021 Semester to welcome the most diverse first-year class in its history.

“When we think about the pandemic, we have to ask ourselves, how do we serve our students going forward?” asked G. Don Taylor, executive vice provost, in his address to the conference. “Education is a vital component of solutions to many of the hard issues that we’ve dealt with in the last year, and I’m incredibly thankful to the Virginia Tech community, including our students, for coming together in peaceful but meaningful dialogue to work towards actionable change.”

The annual institute was hosted by Virginia Tech’s Pathways to General Education, First-Year Experiences, and Inclusive Excellence programs and supported by the Howard Hughes Medical Institute. Events ranged from plenary sessions and panels to roundtable discussions and workshops, including faculty wellness sessions hosted by Hokie Wellness.

Faculty heard from several administrators, including Juan Espinoza, associate vice provost for enrollment management, who described the incoming first-year class as the most diverse in the university’s history. The class is expected to represent 51 countries and to be 10.5 percent Latinx, 20 percent first generation, and 8.7 percent African American or students indicating two or more races including African American.

In two virtual sessions, students shared their perspectives on creating belonging and community, particularly for first-generation and minoritized and marginalized students.

The first panel, facilitated by Rex Waters, associate director of Undergraduate Academic Affairs, featured four current students Nala Miller, Caroline Chappell, Allan Beres,

and Beth Marsico. The discussion focused on First-Year Experiences courses and steps professors can take to help students transition academically and introduce them to their chosen discipline.

“I’ve had really positive experiences with my professors at Virginia Tech. I’m a first-generation student and some of my professors shared that they were too,” said Beth Marsico, a rising senior double majoring in psychology and human development. “It’s really cool to see that relatability. I’ve always felt welcome and never ‘less than’ because I’m a first-gen student.”

For another student, her general education courses helped make connections across the university.

“My Pathways classes put me with students from different majors and made me feel like I not only have a community in the School of Communications, but also part of the wider community on campus,” said Caroline Chappell, a rising senior majoring in communications, with a minor in consumer studies. “It really broadened my horizons.”

The conference also featured a panel discussion from Inclusive Excellence, a university initiative led by program director Jill Sible and funded by a five-year, \$1 million grant from the Howard Hughes Medical Institute, focused on improving the success for marginalized students in science. The dialogue was facilitated by Director of Diversity Education Programs Alicia Cohen, and featured students fellows Demisha Porter, Senija Davis, Wynnie Avent, and Sara Gallegos.

The conversation concentrated on steps instructors can make in the classroom to help students of diverse backgrounds feel a sense of belonging. “Listen to people who feel differently and live differently than yourself,” said Senija Davis, a junior majoring in Spanish with a minor in leadership

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and social change. “The point is not to come up with an answer, not to come up with a response, but to hear them out.”

Another fellow emphasized the importance of having these conversations around campus.

“This is the only time I’ve been asked about my background and experiences, which I appreciate,” said Sara Gallegos, a rising junior majoring in biochemistry, with a minor in chemistry. “However, I do want to see topics like these discussed more in classes. I don’t think I’ve ever seen them addressed.”

The issues raised by students were echoed by Shannon Brady, the conference’s keynote speaker and an assistant professor of psychology at Wake Forest University in Winston-Salem, North Carolina. Her research examines how institutional practices and messages impact student experience and well-being.

“For students from racial-minority backgrounds, women, first-generation students, students who have sexual minority status, all of those identities can make them more

liable to worry and to wonder,” said Brady.

In her keynote address, Brady offered five strategies to help faculty and staff to support their students in the classroom. “Remove cues that trigger worries, support communal goals, convey a growth mindset, normalize difficulty, and explicitly value diversity,” said Brady.

After three days of online sessions, the virtual conference had a record number of participants.

“After completing such an exhausting, difficult year, it’s amazing and humbling to be joined by more than 200 faculty and staff members for this year’s Summer Institute,” said Stephen Biscotte, director of general education and one of the conference’s organizers. “It speaks volumes about their commitment to pedagogy, our students, and our community.”

by Abigail Mercatoris-Morrison and Will Rizzo

Meet Renn Kennedy

Animator and Communications Intern with Undergraduate Education

Pathways: Tell us about your background. Where are you from and what are you studying?

RK: I’m from a little town called Montvale, in Bedford County, which is about an hour away from here. I plan to graduate next spring from the Creative Technologies program at the College of Architecture and Urban Studies and the School of Visual Arts.

Pathways: Anyone who has worked with you can tell you love creating animation. What got you interested in that medium?

RK: I’ve always loved art and storytelling. All my life, I’ve been trying to tell stories through writing and comics. Animation was the perfect integration of both. It allowed me to bring to life all the little things I could see in my head.

Pathways: Animation allows you to work with some really cool tools and technology. What is your favorite way to work?

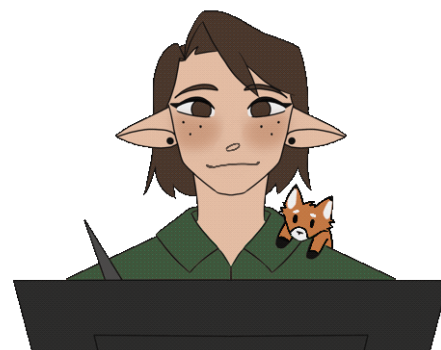
RK: Drawing digitally is my favorite. I use an XP-Pen stylus and drawing tablet, which is a screen I can draw directly on and then use Photoshop for my main software. I also use Procreate on my iPad, which is a \$10 program that has minor animation capabilities, but it’s super easy to use. I can take it and draw anywhere I go: car rides, waiting for a flight, taking notes in class, wherever.

Pathways: We see animation constantly - videos, advertisements, and social media - but I don’t think people realize how labor intensive it is to create. How long does it take to create original animation?

RK: My first animation assignment took me an entire semester to do a one-minute video with audio that was completely colored and shaded. One minute of animation can take at least 20 hours of work. You start with a sketch, you move on to the line art to make it look clean, then add color, and if you have time, shading and light. That can take weeks; it’s very labor intensive.

Pathways: What would you like to do after graduation?

RK: I just want to continue to create. Whether it’s my story or telling someone else’s, I just want to be able to have creative freedom in my work.



A self-portrait by Renn Kennedy

Thank You!

The Office of General Education would like to recognize the members of the Pathways General Education Curriculum Review Committee for their ongoing contributions in reviewing proposed courses and minors. We sincerely thank the members of the 2020 - 2021 Pathways General Education Curriculum Review Committee:

Sincere thanks to the members of last year's Pathways General Education Curriculum Review Committee:

- **Kim Carlson**, Chair, Pamplin College of Business
- **Chad Bolding**, College of Natural Resources and Environment
- **Alex Brand**, University Curriculum Committee
- **Matt Eick**, College of Agriculture and Life Sciences
- **Xinghau Gao**, College of Engineering
- **Gebre Gebremariam**, College of Science
- **Katlyn Griffin**, University Libraries
- **Kevin Jones**, College of Architecture and Urban Studies
- **Kerry Redican**, College of Veterinary Medicine
- **Nick Sano-Franchini**, University Studies
- **Annie Ronan**, University Curriculum Committee for General Education
- **Hannah Shinault**, College of Liberal Arts and Human Sciences
- **James Wilson**, University Curriculum Committee for General Education

Many thanks as well to the following for their support of the committee's efforts:

- **Gary Costello** and the staff at the Office of the University Registrar
- **Anna Taylor**, College of Agriculture and Life Sciences
- **Robert Jordan Jacks**, College of Architecture and Urban Studies
- **Tracy Sebring**, College of Engineering
- **Lisa Kathleen Burns**, College of Liberal Arts and Human Sciences
- **Cathy Barker**, College of Natural Resources and Environment
- **Michel Pleimling**, College of Science
- **Julia Acton**, Pamplin College of Business
- **Sara Vandyke**, University Honors



Save the Date!

Ethical Reasoning Workshop

Undergraduate Education is offering two-hour workshops on how to incorporate Ethical Reasoning into your Pathways course.

Please join your fellow Pathways instructors and program administrators for a workshop session designed to help you integrate the Ethical Reasoning Pathways concept into your course. Come with your syllabus, an assessment (or an assessment idea), and your questions. An ethics scholar, a teaching and learning specialist, and an assessment expert will be on hand to provide feedback.

The workshop is open to anyone teaching Ethical Reasoning, but will be especially useful to those integrating ethics into a course for the first time or those looking for guidance on creating well-aligned assessments.

WHEN: Friday, November 19, 10:00 AM to Noon

WHERE: 3310 Torgeson Hall

WORTH: 2 TLOS PDN credits

REGISTRATION: Register through TLOS for the November 19 session.

A short video presentation (22 minutes) on Ethics Integration is a prerequisite for the workshop unless you have previously attended an Integrating Ethics in the Classroom workshop. The video presentation will be available on the workshop's Canvas site upon registration.

This event is sponsored by the Office of General Education and will be facilitated by Hannah Wildman Short of the Department of Philosophy, Liesl Baum of the Center for Excellence in Teaching and Learning, and Molly Hall from Institutional Effectiveness.