

Bridge Experience Program Annual Report 2023-2024



VIRGINIA TECH



Virginia Tech
Academy for Experiential Learning

Executive Summary

Overview

Bridge experiences integrate academic knowledge in an authentic, professional context related to a student’s intended career path. Students completing a bridge experience will be able to

- apply and connect their learning across academic and professional settings;
- demonstrate professional self-awareness by articulating their personal and professional development; and
- demonstrate a dedication to using their knowledge, skills, and talents in service to others, communities, and their field.

The Bridge Experience Program completed the third year of implementation in June 2024.

Programmatic changes

As the Bridge Experience Program reached the mid-point of the QEP and onboarded new leadership, the university executed changes to advance the program from proof-of-concept to a scalable and sustainable implementation phase. Key changes include:

- transitioning the 3900 Bridge management system to Canvas, the university’s LMS
- affording departments and colleges more flexibility in designing their Bridge programs
- expanding engagement with campus partners that support experiential learning
- revising assessment rubrics for clarity and consistency

Key impacts






<p>Implementation</p> <p>7</p> <p>new departments added a Bridge requirement for Fall 2024.</p>	<p>Academic Programs</p> <p></p> <p>20 academic programs have participated in the Bridge Experience Program; 8 more join this fall.</p>	<p>Students</p> <p></p> <p>146 students have completed “official” bridge experiences in 11 academic programs.</p>
<p>Funding</p> <p></p> <p>VT was awarded 3 grants totaling \$770K from SCHEV to support paid internships and research experiences.</p>	<p>Data</p> <p></p> <p>Experiential learning participation gaps have narrowed for Pell students but persist for first gen and transfer students.</p>	<p>Opportunities</p> <p></p> <p>Student use of the Student Opportunity Center increased by 5-fold.</p>

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with contributions from the following colleague groups:

Academic programs, colleges and faculty across campus
Apex Center for Entrepreneurs
Center for Economic and Community Engagement
Center for Excellence in Teaching and Learning (CETL)
Career and Professional Development (CPD)
Global Education Office (GEO)
College of Engineering Bridge Experience Program Task Force
Center for Excellence in Teaching and Learning (CETL)
Office of Undergraduate Research (OUR)
Technology-Enhanced Learning and Online Systems (TLOS)
VT Engage

Strategic Milestone

Virginia Tech’s strategic milestone is to have **50% of undergraduate degrees** with a required experiential learning component **by 2026 to 2027**. Entering the 2023-2024 academic year, 17 degrees had this requirement. Two of these degrees (English, Food Science and Technology) developed their Bridge requirement and supporting curricula through participation in the Bridge Experience Program (BEP). Three relatively new undergraduate degrees (Elementary Education, Secondary Education, Public Health) were designed with a Bridge requirement from inception, evidence that the university is adopting a culture supportive of experiential learning.

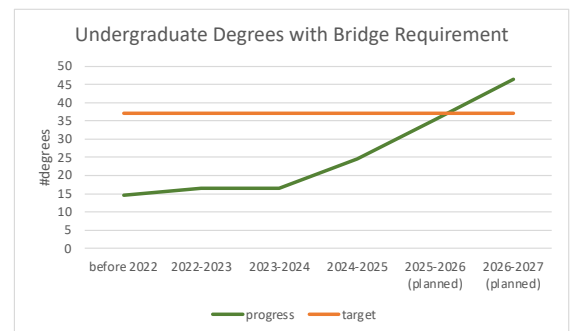
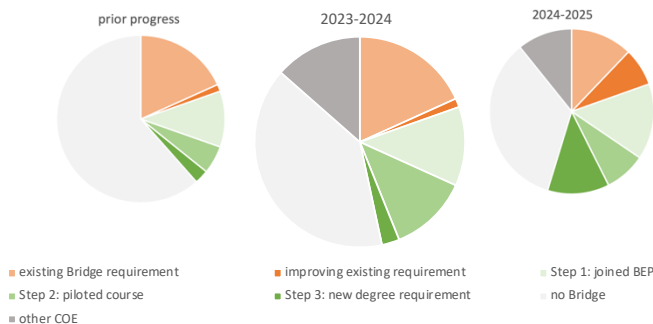
In 2023-2024, 6 new departments participated in the BEP, and 7 progressed to the pilot phase in which they began offering the Bridge 3900 course. Also this year, the College of Engineering (COE), which houses 13 undergraduate degree programs and in which 4 departments have participated in the BEP to date, convened a taskforce that developed a framework defining Bridge experiences within the engineering context and recommended a series of financially sustainable models for implementation. The COE expects that all its degree programs will have a Bridge requirement for students entering Fall 2025.



In a February 2024 State of the University address, President Tim Sands set the goal for every student to have a Bridge experience without extending time to degree.

For 2024-2025, 7 departments housing 9 undergraduate degrees will join the BEP. Four of these degrees (Animal Science, Computational Modeling and Data Analytics, Dairy Science, Systems Biology) do not currently have Bridge requirements; the remaining 5 have experiential learning requirements but seek to improve the quality and equity their experiential learning opportunities through participation in the BEP. These programs will bring a host of experience to the community of practice.

Eight programs added Bridge requirements to their degree programs for students entering Fall 2024, bringing the total to 25 or 33% of degrees.



In 2023-2024, no new Bridge degree requirements were added, but progress was made in engaging more departments including the entire College of Engineering. Seven new Bridge requirements were added to check sheets for 2024-2025. The university remains on pace to reach, and likely exceed, its goal of at least 50% degrees with Bridge requirements by 2026-2027.

Programmatic Changes

The 2023-2024 academic year marked a period of significant change for the QEP. Departure of the Program Director and Project Manager in December 2023 created immediate challenges but also provided an opportunity to test the program's resilience and to engage additional perspectives. In January 2024, Jill Sible, Associate Vice Provost for Undergraduate Education, assumed an interim director role for the Academy for Experiential Learning (AEL), and Zachary Coffren, Assistant Director for Learning Opportunities, took on key project management responsibilities. Catherine Amelink stepped in as interim director for the Center for Excellence in Teaching and Learning (CETL); these roles were made permanent in May 2024. In February, Franca Del Signore joined the AEL as Associate Director for Experiential Learning. The AEL now resides within Undergraduate Education along with First-Year Experiences (VT's last QEP), Undergraduate Research, and Pathways General Education and has access to additional administrative support and expertise in change leadership, undergraduate curricula, and experiential learning.

During this transition, AEL leadership asked academic departments what barriers were challenging further progress. Their primary concerns were:

- *"The 3900 management system is not user friendly."* System fragility and inefficiencies were also discovered.
- *"The Bridge program seems like a heavy administrative burden."* This was especially concerning for departments with large undergraduate enrollments.
- *"We need assurance that all of our students will have access to a Bridge opportunity before making it a requirement."* This was a primary reason departments had not moved from successful pilots to full implementation of a Bridge requirement.

During the Spring 2024 semester, the university took steps to address these concerns:

Transitioning the 3900 management system to Canvas. After a series of meetings with relevant stakeholders (faculty, Registrar, CETL, AEL, TLOS, UAA), a decision was made to transition the 3900 management system from a custom tool developed and administered by a third party programmer, to Canvas, the university's learning management system. While the custom system functioned adequately with dozens of users, it required significant manual support and email communications between the AEL, departments, and the Registrar that would become untenable at scale with thousands of users. There were also existing challenges to integration with Banner exacerbated by the pending move of Banner to the cloud.

Canvas is familiar to faculty and students and well supported by the university. Its integration with Banner is already a university standard since Canvas hosts almost every course offered. A TLOS / ITLS team consisting of seven individuals with instructional design, Canvas and related systems expertise, technical developers and organizational specialists have committed ~36 hours/week since mid-March 2024 to have the system transitioned by Fall 2024. In addition to meeting the primary goals of ensuring stability and scalability of the tool that supports the Bridge program, the TLOS team is working to ensure a positive user experience and reducing process workload for students, department coordinators, and program leadership. The TLOS team is committed to maintenance and iterative improvements to sustain and institutionalize to the Bridge program.

Affording departments more support and flexibility in administering their Bridge programs.

Before this year, departments that had made the Bridge program a degree requirement had relatively small enrollments (English ~250 majors; Food Science and Technology ~100 majors), while larger programs expressed concerns about their ability to undertake this work at scale. Several strategies were employed to build administrative capacity.

Flexibility in implementation

- Programs may utilize existing courses that align with Bridge learning outcomes (e.g. CEIP 3084 and 4084, which are administered by Career and Professional Development) in place of 3900. AEL and CPD will collaborate on assessment of Bridge learning outcomes.
- Departments with longstanding experiential learning requirements for all for their students (Apparel Housing and Resource Management: Hospitality Tourism and Management; Human Development and Family Science; Nanoscience; Politics, Philosophy and Economics) were invited to join Cohort 4 (2024-2025) of the BEP. The BEP community of practice will benefit from their wisdom and experience.

College-level support

- The College of Agriculture and Life Sciences hired a Communications and Bridge Experiential Learning Specialist and hosted two college-wide career fairs, partnering with Career and Professional Development to offer “Career Fair Prep Nights” to students before each event.
- The College of Engineering will offer administrative support from Engineering Education to all of its departments. The Engineering Education team is particularly well situated to support learning outcomes assessment given its expertise in education. Other colleges are also considering offering some administrative support for Bridge programs.
- The College of Liberal Arts and Human Sciences hired a full-time Assistant Director of Employer Relations, who will help expand internship opportunities college wide.

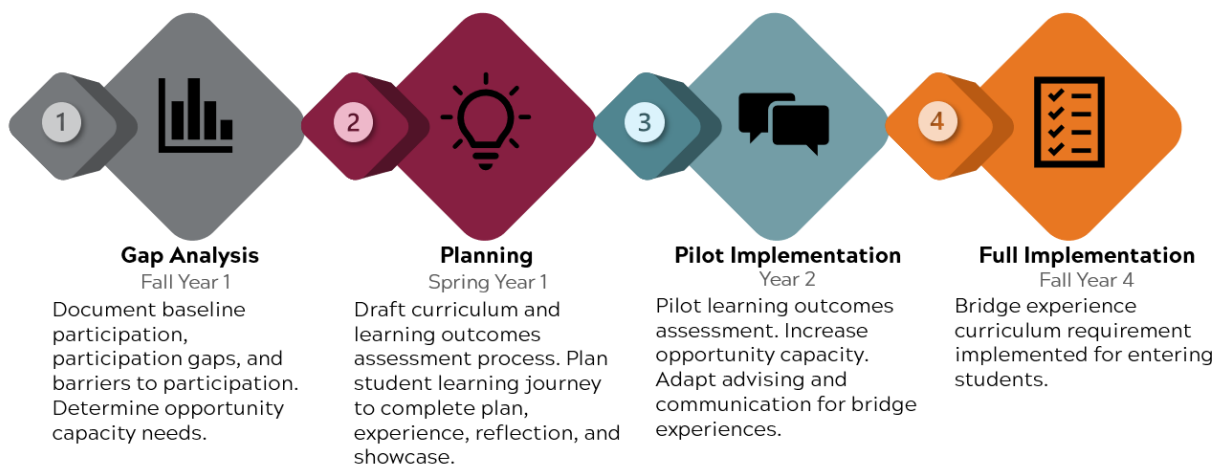
Expanding engagement with campus partners that support experiential learning. Building capacity to ensure that students participating in Bridge programs have access to opportunities that align with their career goals requires collaboration and coordination across all units that support experiential learning. In spring 2024, the AEL reconvened the Bridge Operations Committee, which brings together the university offices that support internships and co-ops (CPD), undergraduate research (OUR), education abroad (GEO), and service learning/community engagement (VT Engage). The Apex Center for Entrepreneurs and TLOS were added to this group. The Operations Committee meets monthly. Topics to date have included how best to communicate experiential learning opportunities to students and collaborative approaches to hosting events for students to showcase their learning from Bridge experiences. Long term, this committee will serve as a source of expertise and support to ensure diverse Bridge opportunities are available and meet the career goals of all students.

Academic Programs

Overview

The Bridge Experience Program brings on cohorts of academic programs for a four-part curricular design process. In 2023-2024, Cohort 3 completed its first year of participation. A review of the progress of the first three BEP cohorts revealed a need for greater flexibility in the pace at which academic departments move through the program. Some require additional time in the pilot phase to build capacity, while others have many elements of a Bridge program in place and are positioned to move to full implementation more quickly. This will be particularly true for Cohort 4, which will be onboarded Summer 2024. All departments will participate in the gap analysis phase in Fall 2024, to identify opportunity and equity gaps, then follow a more customized approach.

Bridge Experience Program Structure



Cohort 1: 2021-	Cohort 2: 2022-	Cohort 4: 2024-
<ol style="list-style-type: none"> 1. Agricultural, Leadership, and Community Education 2. Biochemistry 3. Biomedical Engineering and Mechanics 4. Chemistry 5. Civil and Environmental Engineering 6. Engineering Education 7. English 8. Food Science and Technology 9. Industrial and Systems Engineering 10. School of Architecture 11. School of Neuroscience 12. School of Visual Arts (Graphic Design) 	<ol style="list-style-type: none"> 1. Agricultural and Applied Economics 2. Computer Science 3. School of Public and International Affairs (Smart and Sustainable Cities) 	<ol style="list-style-type: none"> 1. Apparel, Housing, and Resource Management 2. Computational Modeling and Data Analytics 3. Hospitality and Tourism Management 4. Human Development 5. Nanoscience 6. Philosophy, Politics, and Economics 7. School of Animal Science 8. Systems Biology
	<p>Cohort 3: 2023-</p> <ol style="list-style-type: none"> 1. Geosciences 2. Industrial Design 3. Management 4. School of Communication 5. School of Plant and Environmental Sciences 	
		<p>Additional Engineering Programs</p> <ol style="list-style-type: none"> 1. Chemical Engineering

Academic programs participating in the BEP. Programs in **bold** have added a Bridge program as a degree requirement.

Highlights

Academic departments continue to revise curriculum, improve academic advising and communication, and foster opportunities to support their Bridge programs. Each department customizes the work to its specific needs, taking into consideration the students, disciplinary focus, and existing infrastructure. Several programs have reached a level of maturity where they are graduating students with Bridge Experiences, disseminating best practices, and mentoring other departments. The following highlights supply a snapshot of these accomplishments.

Human Development and Family Science Cohort 4

Experiential Learning Coordinator Alexis Henderson was selected to give a presentation entitled *"That I May Serve"--Utilizing Podcasts to Increase Accessibility to Experiential Education and Preparedness* at the 2024 Society for Experiential Education Annual Conference in September in New Orleans.

Creative Writing student Nataly Lopez interviewed English Bridge Program Coordinator Katherine Hall and produced a video to communicate information about the program to other students:

youtube.com/watch?v=E6zUt8yl3ko

English Cohort 1

School of Plant and Environmental Science Cohort 3

SPES developed a 4-course sequence for its BEP: Students will be introduced to Bridge Experiences in SPES 1004, the FYE course, and build professional development skills in SPES 2005 prior to their culminating SPES 3900 experience. They will then be mentored through their Reflections and Showcases in SPES 4006.

A team of four undergraduate Human Resources majors conducted a semester-long project research project aimed at increasing internships for HR majors. The department has already begun implementing their recommendation to build a database of student testimonials.

Management Cohort 3

School of Public and International Affairs Cohort 2

This year, 39 students in SPIA completed Bridge Experiences, the highest participation among the Bridge Experience Programs.



Students from Virginia Tech and the Malawi University of Science and Technology collaborated on Bridge Experience projects.

Industrial Design Cohort 1

In May 2024, 17 VT students from 7 majors traveled to Malawi to culminate their Bridge projects. Some collaborated with students from the Malawi University of Science and Technology (MUST) to develop a surgical scheduling app for hospitals. Martha Sullivan is now supporting MUST in developing its own Bridge program.

The Engineering Education Department is providing administrative support and pedagogical expertise to all Bridge programs in the College of Engineering. COE anticipates that every Engineering degree will have a required Bridge Experience by Fall 2025.

Engineering Education Cohort 1

School of Communication Cohort 3

In Fall 2024, the School of Communication will pilot a Bridge 3900 course with its external transfer students, a population that their data have shown face particular barriers to participation in internships and other career-related experiential learning.

This fall, Geosciences will pilot its study abroad program as a 3900 Bridge experience. The program already contains a research component to which the department is adding career exploration field visits to sites such as the ETH Supercomputing Center, a local vineyard, and the Meride Fossil Museum.

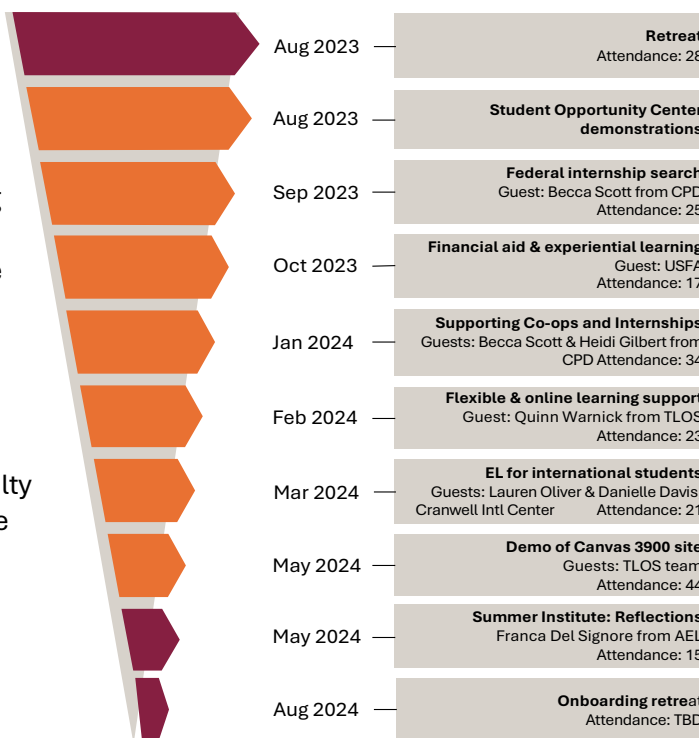
Geosciences Cohort 3

Professional development

Fostering a community of practice. The AEL and campus partners offered a range of programs to support the Bridge Experience Program community of practice.

This year's programming focused on themes of relevance to all participating disciplines. With the community of practice growing and diversifying, next year's programming will be revised to meet evolving needs. Some programming will remain virtual, and while aligned closely with the needs of Cohort 4, will be advertised and open to all. In-person engagements will be interspersed throughout the year and modeled after successful programming in the FYE and Pathways communities of practice. The Summer Institute which attracts 200 faculty per year, will be leveraged for one of these events.

*2023-2024 professional learning opportunities hosted by the AEL.
in-person; virtual.*



Additional professional development and support offered by campus partners

Sponsor	Opportunity	Description	Participants
VT Engage	Faculty Fellowships	year-long program to support faculty incorporating community engagement into their courses or programs	3
OUR	Mentoring Workshop	half-day event to promote best practices in mentoring undergraduate researchers	42
GEO/CETL	Faculty Study Abroad	one-week residential program at Steger Center for International Scholarship to support faculty in developing education abroad programs	11
CPD	iGrow	helps on-campus employers elevate on-campus jobs to professional work-based learning through reflection	

Building capacity for faculty leadership. Faculty and departments in which they reside have long been recognized as the units of change that drive curricular innovation, including the BEP, and the majority of Bridge grant funding is still targeted at this level. This year, faculty and departmental leadership involved in the BEP been further honored and cultivated through new initiatives.

- President Sands nominated professors John Chermak (Geosciences) and David Knight (Engineering Education) to serve as the inaugural Business Higher Education Forum Faculty Innovation Fellows. This national program aims to build change leadership capacity among faculty through projects that promote work-based learning. Additional BEP faculty have been identified to participate in next year's cohort of fellows.
- Two BEP faculty were added to the university's membership to the Society for Experiential Education and three will be funded to attend the national conference in September.

Learning Outcomes Assessment

Overview

In 2023-2024, the BEP Assessment Committee assumed responsibility for evaluating student achievement of the programmatic learning outcomes. During a norming session, the committee identified inconsistencies among the student prompts, various scoring rubrics, and scales, and recommended better alignment to improve assessment at the student and program level. They also recommend changes to improve the quality of the students' reflections. With these caveats in mind, the committee completed a modified assessment protocol sampling from the Reflections and Showcases of the 75 students completing a Bridge experience in summer and fall 2023. These data, combined with student Likert responses to questions in the Experience section, showed evidence that students are largely meeting outcomes 1 and 2 at a satisfactory level, with less success in meeting outcome 3. The most important output from this year's assessment cycle is the recommended changes to the rubrics and assessment process.

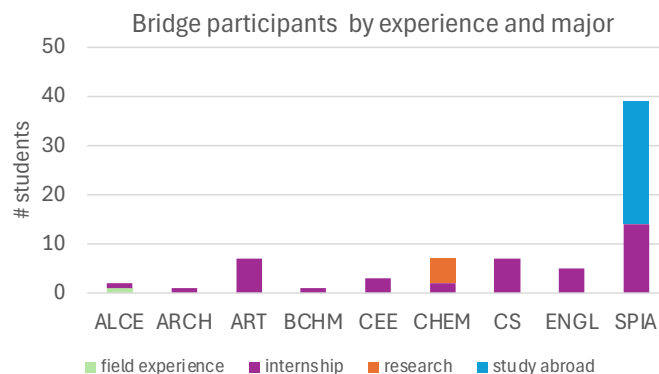
Learning outcomes

Bridge experiences integrate academic knowledge in an authentic context that is related to a student's intended career path. Students completing a bridge experience will be able to

- apply and connect their learning across academic and professional settings;
- demonstrate professional self-awareness by articulating their personal and professional development; and
- demonstrate a dedication to using their knowledge, skills, and talents in service to others, communities, and their field.

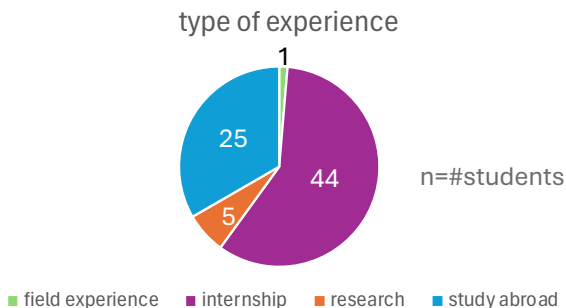
Instruments and data used for assessment

Responses to the Experience, Reflection, and Showcase questions for the 75 students who completed the BEP between summer and fall 2023 were available in a spreadsheet. For most of these students, a Showcase artifact was also available.



The students represented 9 different academic programs, with 52% from a single program (SPIA = School of Public and International Affairs).

The type of student experience was weighted toward internships (59%) and study abroad (33%). Of note, one student who conducted research with a VT faculty member selected “internship” rather than “research.” Student self-reported responses were not altered for this report. In the future, students may need guidance to help them select the experience type that best aligns with university definitions.



Methodologies

Mapping Experience Questions to SLOs. Responses from all 75 students were used. Sixty students completed their responses using the 22-23 instruments and 15 using the modified 23-24 instruments. Since the two versions of questions and Likert choices were highly similar, the questions and responses were paired. Questions that did not pair across the versions were not used for this year’s assessment.

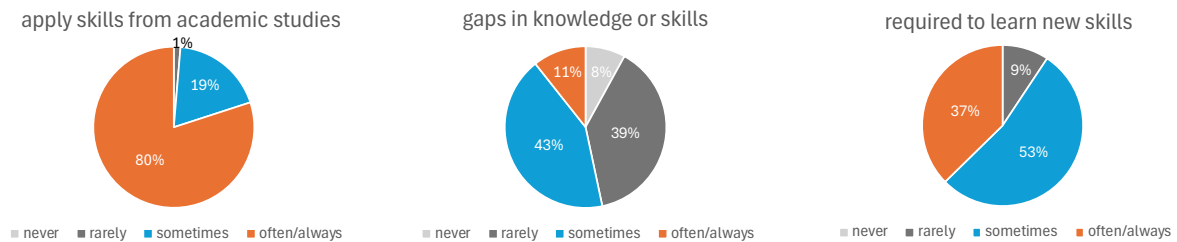
Scoring Reflections and Showcases. The Bridge Program Assessment Committee engaged in a norming session in preparation for scoring Reflection and Showcase work for students who completed their Bridge programs between Summer and Fall of 2023. The norming session brought the scorers into good alignment, but the committee identified a number of issues with the prompts, process, and rubrics. They felt that some student responses may not have accurately conveyed the student’s learning because students received little or no guidance on how to write reflections nor were they provided the rubric. While each SLO was mapped to a specific Reflection question (Q2=SLO1, Q3=SLO2, Q4=SLO3), the scorers sometimes found stronger evidence of a student meeting a given SLO in their response to a different question. The Showcases were of inconsistent format, sometimes missing, and difficult to score with the rubric provided. Given these concerns, this year’s assessment plan was modified. The committee members scored a sample of student Reflections and Showcases holistically using the better Reflection rubric. While any findings would need to be interpreted with caution, it was believed the exercise would help inform how to improve the assessment process for the next cycle.

The four assessment committee members were divided into two teams, each assigned 15 student Reflections and Showcases to score for each SLO. The selections were random except that scorers were not assigned students from their own programs. The student work was deidentified (except for a few photos in the Showcases). AEL associate director Franca Del Signore scored all 30 selections. The scores were averaged for each scorer, and then those scores were averaged for each SLO. On the 5-point scale of the rubric (0, 1, 2, 3, 4), the three scorers were all within 1 point of each other 83% of the time for SLO1, 60% for SLO2, and 77% for SLO3.

Findings

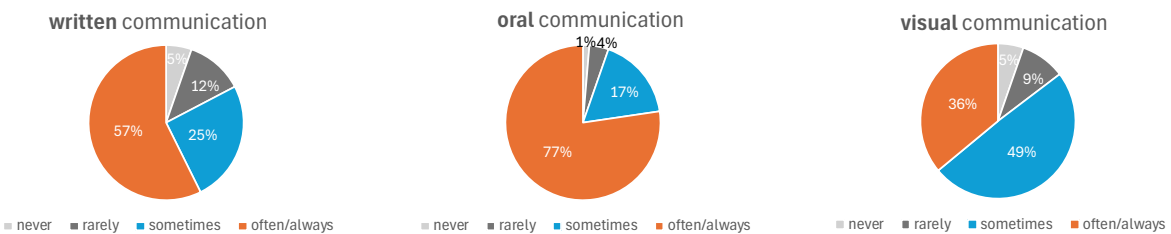
Likert responses to Experience questions

The responses to the questions that mapped to **SLO 1, *apply and connect learning across an academic and professional settings*** are shown below.



The student responses indicate that almost all students found their Bridge experiences to be opportunities to apply academic learning. A majority perceived gaps in their knowledge and were required to learn new skills as part of the experience. Responses to the Reflection questions should help departments identify where curricular revisions can reduce gaps in knowledge or skills to help students better prepare for these experiences. Together, these data support the conclusion that Bridge experiences have provided strong environments for students to meet SLO1.

Seven questions were related to **SLO 2, *demonstrate professional self-awareness by articulating personal and professional development***.

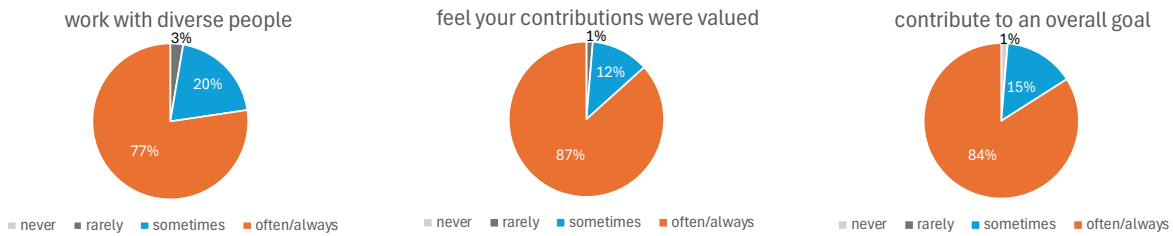


These responses indicate that most students are applying communication skills as a significant part of their Bridge experience with opportunities for oral > written > visual.



The responses to the remaining four questions indicate that overall, the environments in which students are conducting their Bridge experiences are conducive to developing as professionals. There may be opportunity to help some experience providers improve in setting clear expectations and providing feedback.

Three questions have been mapped to **SLO 3, demonstrate a dedication to using knowledge, skills, and talents in service to others, communities, and the field.**

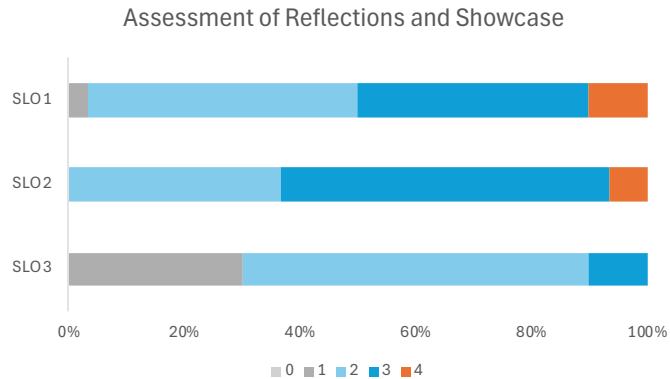


While these questions do not align tightly with SLO3, the student responses indicate that most of them experienced Bridge environments conducive to developing a service mindset.

Overall, student responses to these survey questions about their Bridge experiences provide evidence of constructive work environments in which they were situated to learn and grow as students, professionals, and citizens.

Assessment committee evaluation of Reflections/Showcases

The summary of the Assessment Committee’s scores of 30 samples of student Reflections and Showcases provides evidence that most students are meeting all three of the SLOs at a Satisfactory (2 or 3) or better (4) level.



For SLOs 1 and 2, there were few to no unsatisfactory scores (0-1). This is expected since all student work assessed had been evaluated by departmental scorers and deemed satisfactory. Only a small percentage of the student work was scored at an Exemplary level (4), which concerned the committee who felt that a score of 4 represented the quality of work that would be of value for students to use on resumes and in job interviews.

For SLO 3, a higher percentage of students (30%) scored in the Unsatisfactory range, and none scored in the Exemplary range.

Overall, the Likert responses to the Experience questions mapped to SLOs 1 and 2 correlated with the committee evaluation of student Reflections and Showcases for these learning outcomes. However, there was a substantial disconnect between the Likert responses and the committee evaluations for SLO 3.

Recommended changes to program assessment

- A single rubric should be used by everyone (students, scorers, assessment committee). The language should be more student friendly. A draft modified rubric will be tested and revised by the Assessment Committee next year.
- The discrepancy between the two-point scale (U or S) used by the scorers and the two different 5-point scales used by the assessment committee to score the SLOs (0-4 for Reflections, 1-5 for Showcases) is problematic, and the committee recommended a single 3-point scale (Redo, Satisfactory, Exemplary) for all. Exemplary would be the standard students should aspire to if they want to use their Bridge Experience to strengthen job applications, interviews, etc. Students should be coached toward achieving this level at least for key parts of the assignment.
- The prompts students receive might also need some revision to coach them toward satisfactory and exemplary work. Additional strategies to improve the quality of student work include sharing the rubric, sharing examples of excellent work, and allowing students to submit work early for feedback ahead of final grading. The new 3900 system in Canvas can be designed to support these elements.
- The Showcases might be excluded from program assessment since the type of work and extent to which it can be shared publicly varies extensively.
- SLO 3, the “Ut Prosim” outcome, which is mapped to a single Reflection question, is hard to assess. This outcome should receive particular attention in the coming year.

Data & Analytics

Updates

The December 2023 departure of the BEP Program Manager, who was responsible for data analytics and reporting, left a gap in expertise. Capacity in data collection, analysis, and reporting is being restored through a more distributed approach that includes:

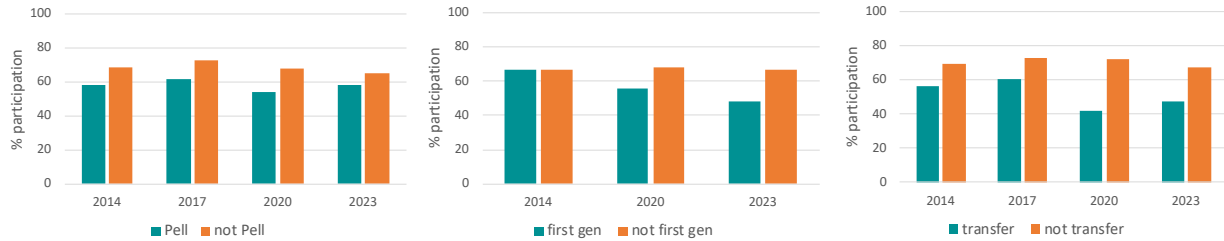
- The Data Science Graduate Assistant in Undergraduate Education was hired by the AEL for the summer to prepare customized departmental data reports to be shared with Cohort 4 departments during the August 2024 onboarding retreat. Part of her time will also be allocated during the 2024-2025 academic year to work with departments on additional data needs and to build dashboards that will automate data collection and reporting.
- The AEL Director has access to some enterprise system student demographic data critical for departmental reports. She has experience analyzing and visualizing disaggregated student data and contributes directly to the reports.
- Career and Professional Development was awarded a \$100,000 grant to steward the establishment of an internship/work-based learning (WBL) dashboard. WBL data is decentralized; thus, the project's success depends on collaboration with campus partners. CPD and AEL are working with Analytics and Institutional Effectiveness to identify common metrics and data points across campus – ultimately creating a dashboard that will grow as more institutional partners join the project.

Participation and equity

In addition to the First Destination Survey data, which has been summarized in previous reports, Virginia Tech participates in the **National Survey for Student Engagement (NSSE)** every 3 years. Institutional Effectiveness provided the AEL with disaggregated responses to NSSE questions about student participation in internships, undergraduate research, and study abroad. These data provide additional insight into participation gaps that must be considered and address as part of the Bridge Experience Program initiative. The data reported here are for undergraduate students who were seniors when the survey was administered, typically in April of the indicated year. Only students who responded “done or in progress” to the prompts were counted as participants in the experience. The three student populations shown here are Pell-eligible students, first-generation college students, and transfer students. Data were also disaggregated by racial/ethnic identity, but unfortunately, the low numbers for several identities and the changing categories across survey years precluded meaningful interpretation of the data. It will be important to look at other data sources, such as the First Destination Survey, to identify participation disparities in experiential learning for racial and ethnic student groups and for international students.

Internships and other work-based learning opportunities

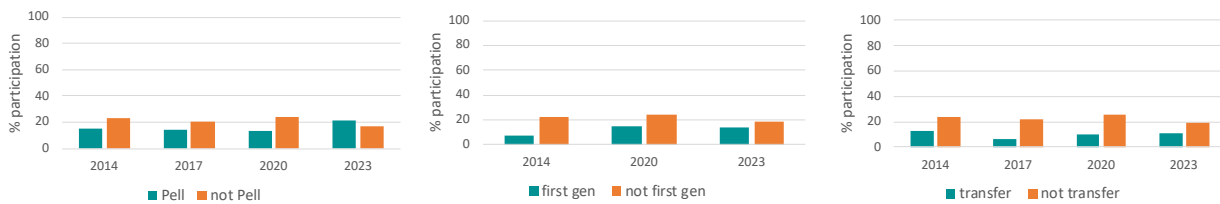
The percentage of seniors who responded “done or in progress” when asked if they had **participated in an internship, co-op, field experience, student learning, or clinical placement** is shown below. (Data for first generation students was not reported in 2017).



At least half of seniors in all disaggregated groups participated in these experiences. The data indicate persistent disparities for all three underserved identities with widening gaps since the pandemic for first-generation and transfer students.

Study abroad

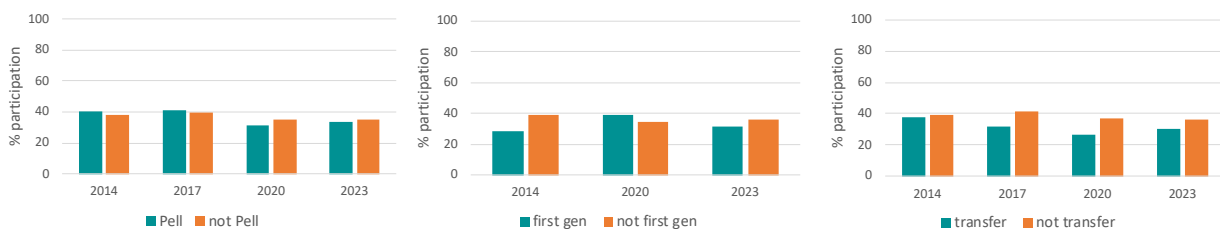
The percentage of seniors who responded “done or in progress” when asked if they had **participated in a study abroad program** is shown below.



The percentage of students who participate in a study abroad experiences remains near or below the 20% mark. While participation has dropped for majority identities since the pandemic (compare 2020 and 2023), it is at a record high for Pell-eligible students.

Undergraduate research

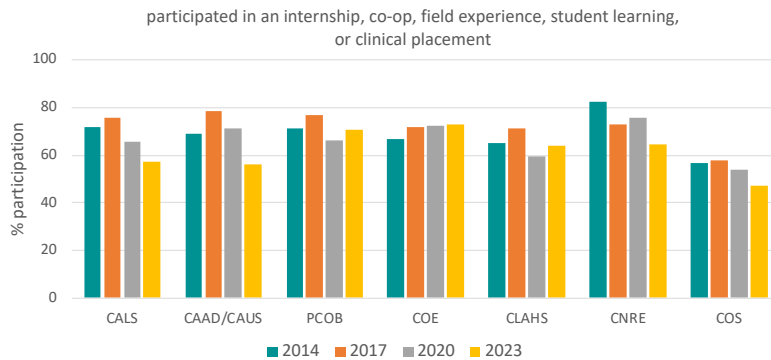
The percentage of seniors who responded “done or in progress” when asked if they had **worked with a faculty member on a research project** is shown below.



Participation in research with a faculty member has not returned to pre-pandemic levels. The trend of few to no disparities for Pell students has persisted, and the gap may be lessening for first-generation students. The participation gap for transfer students that appeared 2017 and 2020 narrowed in 2023. Overall, undergraduate research remains one of the more equitable forms of experiential learning.

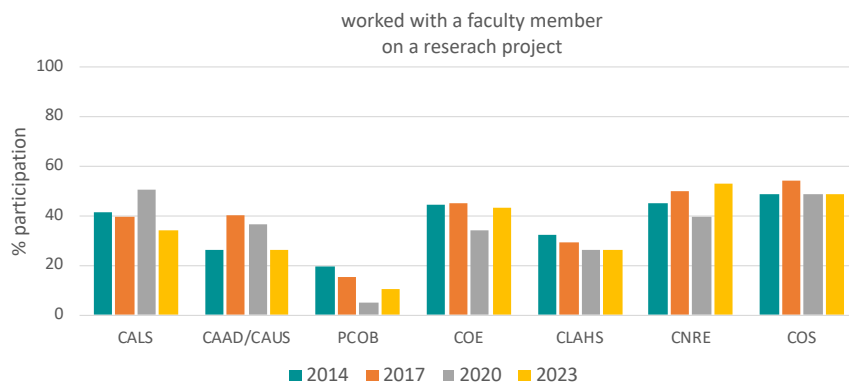
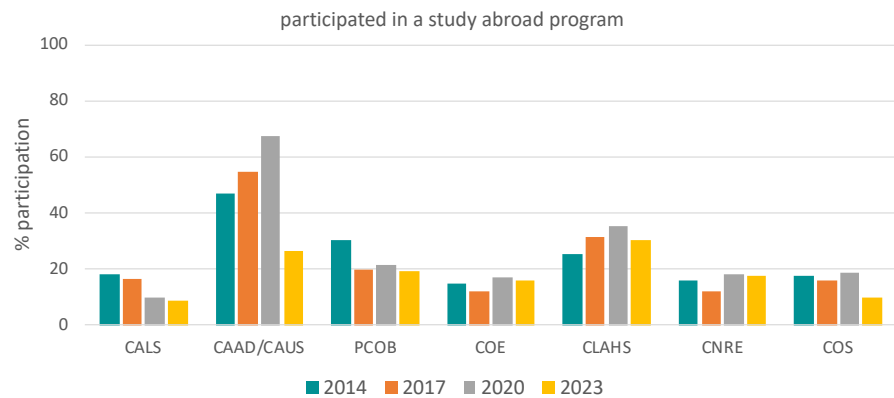
Participation by college

NSSE survey data were also disaggregated by academic college. Note: In a 2022 reorganization, the College of Architecture and Urban Studies (CAUS) was renamed the College of Architecture, Arts and Design (CAAD). The School of Public and International Affairs moved from CAUS to the College of Liberal Arts and Human Science (CLAHS). The School of Performing Arts moved from CLAHS to CAAD. The Meyers-Lawson School of Building Construction moved from CAAD to the College of Engineering (COE).



For the three science colleges (CALS, CNRE, COS), there is a downward trend in participation in these experiences, especially post-pandemic. Participation has held steady in the PCOB and COE.

For most colleges, participation in study abroad was at or near an all-time low in 2023, possibly due to the pandemic. The data for CAAD/CAUS are likely impacted by the 2022 reorganization as well.



Participation in undergraduate research has remained fairly consistent and higher in the STEM colleges (CALS, COE, CNRE, COS).

Takeaways

The 2017 Beyond Boundaries Report on Experiential Learning identified three Cs as barriers to students accessing these high-impact practices: **cost**, **curriculum**, and **communication**. Provost Clarke added **capacity** to that list. Longitudinal, disaggregated data from the NSSE survey may offer some insight into how these barriers differentially impact student groups at Virginia Tech.

- Fairly consistent participation gaps for internships and study abroad for Pell-eligible and first-generation students suggest that **cost** remains a barrier. These gaps are less or not existant for undergraduate research experiences, which can be accessed locally and are sometimes paid, suggests some strategies to reduce the cost barrier.
- The decline in participation in all forms of experiential learning by transfer students may have a cost factor as well. Most likely **curriculum** is the largest hurdle for these students since they tend to have much less flexibility in their schedule if they are to earn their degree in a timely manner. Transfer students remain a key population to attend to as Bridge programs are embedded into degrees, usually without any reduction in other requirements.
- Differential access to **communication** of experiential learning opportunities is harder to identify. It is notable that colleges with strong internship (PCOB, COE), study abroad (CLAHS), or undergraduate research (CNRE, COS) “cultures” maintained healthy participation in these respective experiences even through the pandemic.
- Of concern is the overarching pattern of decline in participation across all experience types and identity groups over the past decade, a trend counter to the aspirations of Beyond Boundaries, the VT Advantage, and the QEP. Undergraduate enrollment increased by 27% between the administration of the 2014 and 2023 NSSE surveys, and impacts of the COVID-19 pandemic on the student experience persist. As additional departments add Bridge requirements, demand for these experiences will further strain **capacity**. Strategic investments and creative approaches to offering Bridge experiences at scale will be essential as will constant attention to equitable access.

Building Opportunity Capacity

Overview

In 2023-2024, the AEL and partner units addressed the challenges of cost, curriculum, communication, and capacity to expand the availability and equitable access to experiential learning opportunities that meet the requirements for Bridge Experiences.

Student Opportunity Center



Student
Opportunity
Center

	22-23	23-24	Increase Y2Y	fold change
active users	934	4643	3709	5.0
searches	13689	77712	64023	5.7
opportunity views	2230	15567	13337	7.0
applied	15	739	724	49.3

VT continues to pilot use of the Student Opportunity Center (SOC) platform to curate and communicate experiential learning opportunities to students with particular attention to fields where access and capacity have been a challenge. The Assistant Director for Learning Opportunities supervises a team of undergraduate interns who curate opportunities within the SOC and meets monthly with SOC developers to debug and improve the system. Year-to-year (Y2Y) metrics indicate a substantial increase in utilization of the SOC by students. The current license, which allows for 10,000 users, has been renewed for the coming year at the same level and price (\$131,625). Scaling to a full access subscription (\$182,500) is planned for 2026. Given the significant cost and personnel time, the 2024-2025 year will be spent trying to maximize and evaluate the ROI of this investment for students. A meeting with colleagues at Virginia Commonwealth University, which also uses the SOC, is planned to share experiences. Positive feedback from some of the departments participating in the pilot and interest from the Office of Undergraduate Research and VT-Engage to adopt this platform are factors in support of this investment.

Internships

Career and Professional Development (CPD) is expanding access to paid internships through several projects.

SCHEV Institutional Internship Support Grant. CPD is leveraging approximately \$55,000 from the \$100,000 grant to create new on-campus internships by providing wage matching for on-campus employers. A partnership with the Division of Student Affairs has led to the creation of 25 new internships for the Fall semester. The remaining funds are committed to supporting students in unpaid/underpaid internships that support the public good and the *Ut Prosim* ideal.

SCHEV Transforming Federal Work-Study (Phase 1) Grant. CPD is partnering with University Scholarships and Financial Aid to transform some Federal Work-Study (FWS) positions into internships (or internship-like positions).

Public Service Education Institute (PSEI) Endowment. CPD has been asked to steward a \$1.5 million endowment that is designed to offer financial resources to students interning with the government at the local, state, or federal levels.

CPD is working with the Controller's Office to design a way to dispense these funds that maximizes the benefit to the students who need the funds most.

Education abroad

From fall 2023 through summer 2024, 1,485 Virginia Tech students studied abroad, inclusive of 67 virtual study abroad experiences. The majority of these students participated in VT faculty-led programs. 334 students studied abroad on programs offered by third-party providers, 80 students enrolled directly in foreign universities, and 66 students participated in semester or year exchanges with our institutional partners abroad. During the 2023-2024 year, 166 students received a total of \$446,670 in financial support, including both hard dollar awards (\$399, 670) and tuition waivers (\$47,000).

The **Global Education Office (GEO)** has been engaged in a number of activities to improve access to education abroad:

- taken into consideration how students will need to pay for programs, particularly those relying on financial aid, VA 529, Veterans benefits, or any type of State or Federal funds, and GEO has changed the way it advises on third-party options to focus on those that allow students to use their financial aid
- revised its study abroad scholarship application rubric to target underrepresented students and those with high financial need
- developed advising materials and targeted presentations for historically marginalized identities (including LGBTQ 1st-gen, students of color, and STEM)
- intensified outreach to offices on campus that work with underserved and underrepresented student populations
- begun working with the First-Year Experience office with the goal of getting the study abroad message and supporting resources in front of all first-year students and their advisors
- begun refining the program search process to adapt to the current generation of students, who we find are easily overwhelmed by too many choices
- worked even more closely with the academic advising community to 1) provide the information they need to guide students toward study abroad, and 2) encourage them to notify us through the Navigate system when a student expresses interest in study abroad

Despite these efforts to improve access to and affordability of education abroad, the four C's and other challenges persist.

Cost: The number one challenge continues to be financial. Despite the availability of scholarships, many students (especially independent and non-traditional students) still find the overall cost of studying abroad prohibitive. Additionally, certain study abroad programs may not align with their specific financial aid options, and there is often a loss of income during their time away.

Curriculum: Students in demanding majors or with inflexible course schedules often struggle to find study abroad programs that fit within their academic plans without delaying their graduation.

Communication: Some students are unaware of the opportunities available or benefits of studying abroad. This is particularly true for first-generation college students and students from underrepresented backgrounds. Similarly, many students suffer paralysis of choice when trying to select a study abroad opportunity without assistance from an advisor.

Capacity: The absence of coherent portfolios of study abroad offerings within colleges that represent a diversity of program type, major focus, and geographical location presents a challenge.

Other challenges particular to education abroad include:

- concerns about personal safety, political stability, and health risks abroad (if not fear expressed by the student, then fear expressed by parents).
- students’ fear of missing out on the home campus experience.

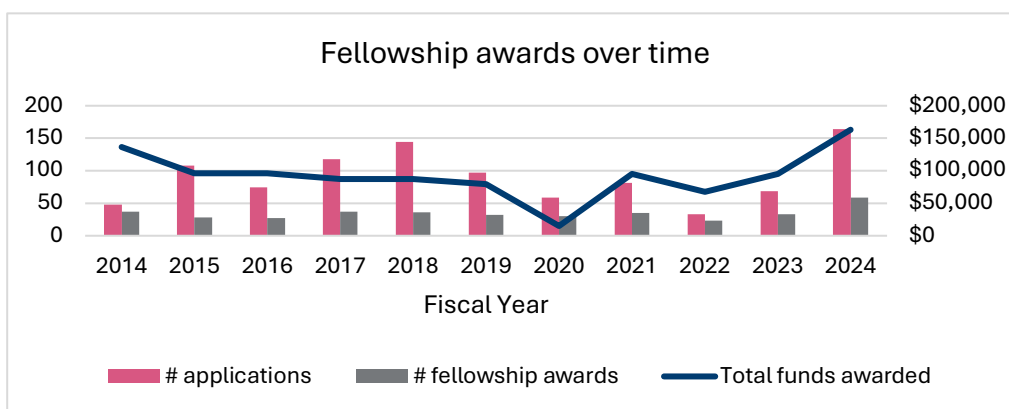
Undergraduate research

The **Office of Undergraduate Research (OUR)** has continued its longstanding trajectory of monitoring and building access to undergraduate research experiences. Year-over-year metrics indicate an increase in both the

number and dollar amount of undergraduate research fellowships awarded by OUR and university-wide. The even greater increase in fellowship applications indicates that

	2022-23	2023-24	% increase
total undergraduate fellowships	878	1103	26%
total fellowship funds disbursed	\$95,625	\$163,110	71%
fellowships awarded by OUR	33	59	79%
fellowship applications to OUR	69	164	138%

student interest in paid research experiences still exceeds capacity. Review of data over the past ten years indicates that undergraduate research fellowships have not only returned to pre-pandemic levels but have reached historic highs.



This year, OUR introduced two new student research funding programs:

- **First Year FURF**, funded by the Fralin Life Science Institute, supports first-time-in-college and transfer students without prior research experience. Over 100 applications were received, and 10 mentor-mentee pairs were fully funded, with an additional 26 students receiving research support through their mentors.
- The **Bridge Undergraduate Research Grant Program**, made possible by one-time funds from UAA, supported 18 students to engage in four summer research projects and 14 research abroad experiences.

The **Dennis Dean Undergraduate Research and Creative Scholarship Conference** grew to a record size, with 246 poster presentations delivered by 448 students, representing all colleges. This event offers a venue for any student completing a Bridge experience to meet the Showcase component of the program.

Entrepreneurship

The **Apex Center for Entrepreneurs**, which supports undergraduate experiential learning in entrepreneurship through StartUp Hokies, had more than 800 students participate in its programs last year and distributed > \$60,000 in scholarship stipends for students to gain hands-on experience in entrepreneurship through company building exercises, as well as travel to conferences, customer visits and external competitions. Leadership from the Apex Center has joined the BEP Operations Committee with the goal of building capacity in student entrepreneurship as a Bridge opportunity for students across campus.

Community engagement

VT Engage, housed within the Division of Student Affairs, supports experiential opportunities related to service learning, leadership, and civic engagement through a host of activities including supporting faculty in courses that embed service learning opportunities. VT Engage also partners with area non-profits and serves as a direct opportunity provider of experiences such as leadership roles in Campus Kitchen and service-based study abroad programs. This year, leadership from the AEL and VT-Engage convened for several meetings to discuss ways to build capacity for community engagement opportunities to qualify as Bridge Experiences. Next steps include exploring the SOC as a platform for sharing opportunities with students and their departments and establishing direct partnerships when the recently vacated Assistant Director for Service Learning position is filled.

Program-level activities

In addition to these activities by university-level offices that support a range of Bridge opportunities, many of the academic departments participating in the BEP have embarked on their own efforts to build capacity for their own majors. These activities include creating their own databases of opportunities, hosting networking events for their majors with employers, and hiring departmental internship coordinators. These investments signal departmental commitment to the BEP and leverage local expertise and connections that should benefit students. However, there is also a risk that siloed activities replicate effort and may not be sustainable. In the coming year, the AEL plans to convene its community of practice to discuss the best way to build capacity for Bridge opportunities collaboratively for all students while still respecting the needs and autonomy of individual programs.

Resources

Personnel - Academy for Experiential Learning



Jill Sible
Director and
Associate Vice Provost for
Undergraduate Education



Evelyn Compton
Administrative
Assistant and Office
Manager



Zach Coffren
Assistant Director for
Learning
Opportunities



Franca Del Signore
Associate Director for
Experiential
Learning



vacant
Experiential Learning
Opportunities
Coordinator

Operating Budget

INCOME	FY24	FY25
base allocation	\$ 313,750	\$ 313,750
one-time	\$ 90,000	\$ -
total income	\$ 403,750	\$ 313,750
EXPENDITURES	FY24	FY25
grants to programs		
department grants	\$ (144,565)	\$ (89,443)
college grants	\$ (129,700)	\$ (63,100)
CETL awards	\$ (33,000)	\$ -
subtotal	\$ (307,265)	\$ (152,543)
infrastructure		
SOC license	\$ (131,625)	\$ (131,625)
Bespoke Consulting	\$ (40,000)	\$ -
subtotal	\$ (171,625)	\$ (131,625)
wage		
undergraduate wage	\$ (10,964)	\$ (18,000)
grad student wage	\$ (8,236)	\$ (9,000)
faculty stipends	\$ (3,500)	\$ (2,500)
fringe	\$ (240)	\$ -
project manager stipend	\$ (7,000)	\$ -
subtotal	\$ (29,940)	\$ (29,500)
faculty development		
programming	\$ (18,638)	\$ (21,500)
faculty conference travel	\$ -	\$ (10,500)
subtotal	\$ (18,638)	\$ (32,000)
AEL operating		
computer, software, supplies, printing, copier	\$ (5,797)	\$ (3,252)
memberships	\$ (1,050)	\$ (500)
conference travel	\$ (1,413)	\$ (7,500)
Coordinator search/setup	\$ -	\$ (3,500)
subtotal	\$ (8,260)	\$ (14,752)
total expenditures	\$ (535,728)	\$ (360,420)
shortfall	\$ (131,978)	\$ (46,670)

Funding for the BEP resides in an operating fund for the Academy for Experiential Learning (AEL). For 2023-2024 (FY24), this fund was housed in the Center for Excellence in Teaching and Learning. A total of \$403,750 was allocated. Expenditures totaled \$535,728, with a shortfall of \$131,978 covered by funds from Undergraduate Academic Affairs (UAA). The majority of expenditures (57%) were grants and awards to departments developing Bridge experience programs. Another significant expense (25%) is the license for the Student Opportunity Center for 10,000 students.

For 2024-2025, the operating budget was moved to Undergraduate Education and reduced by 23% to \$313,750. With FY25 grants and the SOC license already committed, there was limited opportunity to scale back. Faculty development was prioritized. Moving the 3900 system to Canvas saved \$40,000 in third party developer costs. At present, a predicted shortfall of \$46,670 exists, and there is no funding to offer additional grants to Bridge departments in Spring 2025. Salary savings from the open coordinator position will offset some of this shortfall and additional funding has been requested from UAA to cover the balance.

Beginning FY26, the SOC (now PeopleGrove) license is supposed to scale so that all students can use the tool, and this cost will be \$182,500, 58% of the base operating budget, which will constrain operations further.

Plans for 2024-2025

Support for Bridge Experience Program cohorts

- Facilitate progression of Cohort 1-3 programs through the Pilot and Implementation phases of the BEP
- Support Cohort 4 departments through the Gap Analysis and Planning phases of the BEP
- Recruit Cohort 5 departments; onboard in May 2025
- Offer professional development for all Community of Practice participants throughout the year
- Bring three BEP faculty (Computer Science, English, Human Development) to the Society for Experiential Learning Conference in New Orleans, in September 2024
- Sponsor a faculty member to attend the AAC&U Conference on Global Learning
- Engage with 2024 BHEF Faculty Fellows (Engineering Education, Geosciences); nominate 2025 Fellows (Biochemistry, Communication)

Transcription and assessment of Bridge Experiences

- Complete integration of 3900 system into Canvas for Fall 2024 rollout; work with TLOS on updates
- Identify existing Bridge courses and work with departments to integrate relevant modules from Canvas 3900 site
- Map Bridge outcomes to CEIP courses and develop assessment plan that does not duplicate efforts
- Revise and test simplified rubrics for Bridge SLOs

Building capacity

- Hire Coordinator and undergraduate interns to maximize utilization of the SOC; assess the ROI relative to the cost.
- Work with OUR and VT-Engage to test the SOC as a platform for communicating undergraduate research and community engagement opportunities
- Implement SCHEV grant to offer paid summer undergraduate research to Pell students
- Support CPD work including convening of all campus internship coordinators

Improving communication

- Work with communication leads from the Provost's Office and Undergraduate Education on a communication plan with clear messaging to all key stakeholders, especially students, academic departments, and potential donors
- Revise xl.vt.edu to serve as the Bridge Experience Program website
- Develop a communication toolkit for Bridge departmental leads