

# Undergraduate Research Engagement: UBC Okanagan

OFFICE OF THE PROVOST AND VICE-PRESIDENT, ACADEMIC



## Table of Contents

<i>Introduction</i> .....	<b>2</b>
<i>Student Engagement</i> .....	<b>2</b>
<i>Undergraduate Research Opportunities at UBC Okanagan</i> .....	<b>4</b>
<b>Externally Funded Opportunities</b> .....	<b>4</b>
Tri-Agency Undergraduate Students Research Awards .....	4
<b>Internally Funded Programs</b> .....	<b>4</b>
Work Study Program, UBC Okanagan.....	4
International Undergraduate Research Award, UBC Okanagan .....	5
Indigenous Research Mentorship Program, UBC Okanagan .....	5
<b>Faculty-Specific Research Programs and Awards</b> .....	<b>5</b>
Faculty of Applied Science, School of Engineering .....	6
Irving K. Barber Faculty of Arts and Social Sciences .....	6
Faculty of Creative and Critical Studies .....	6
Faculty of Health and Social Development .....	6
Faculty of Management .....	7
Faculty of Medicine, Southern Medical Program .....	7
Irving K. Barber Faculty of Science .....	7
UBC Library.....	8
<b>Curricular Research Engagement</b> .....	<b>8</b>
Thesis Courses .....	8
Directed Studies Courses .....	9
Research Methods Courses .....	9
Research Intensive Courses .....	9
Capstone Courses .....	9
Co-op .....	9
<b>Co-curricular Opportunities</b> .....	<b>9</b>
Employment .....	9
Go Global.....	9
Volunteer Placements.....	10
Student Clubs .....	10
<b>Student Support</b> .....	<b>10</b>
<b>Research Dissemination Opportunities</b> .....	<b>11</b>
Conferences and Research Events.....	11
Student Journals.....	11

## Introduction

UBC is committed to enhancing and broadening access to student research experiences. [Strategy 8](#) of UBC’s Strategic Plan specifies the intention to develop better mechanisms to match undergraduate students with relevant research projects and provide them with appropriate support, recognizing that “engagement in research builds in students the ability to apply their learning, create new knowledge and utilize research skills.”

The purpose of this report is to provide a broad overview of many of the current offerings that enable undergraduate students to engage in research at UBC. It is not comprehensive, nor is it meant to be, but rather provides information on the diversity, distribution and scope of initiatives and programs in this area. It includes information on student awareness and participation in research opportunities as well as organizational positioning and support for research. Data and information included in this report were gathered for the purposes of a UBC-wide report to the Board of Governors’ Learning and Research Committee presented in June 2024. This version of the report has been modified to emphasize UBC Okanagan-specific content to facilitate information sharing on this campus.

## Student Engagement

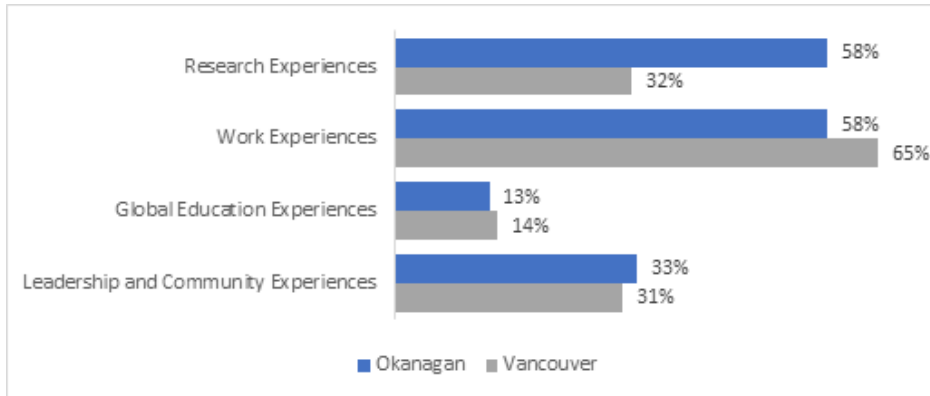
Institutional surveys provide a broad picture of undergraduate student engagement in research at UBC. The Undergraduate Experience Survey (UES) and the National Survey of Student Engagement (NSSE) include questions on participation in experiential education and high-impact practices. Further details on both surveys can be accessed through the [Planning and Institutional Research Office](#) (PAIR).

The UES, administered in January 2024 to UBC undergraduate students, asked specific questions related to participation in experiential learning<sup>1</sup>. Broadly defined, experiential learning refers to learning experiences that are hands-on, practical and applied. On the Okanagan campus, 27% of respondents indicated that they had participated in experiential learning. Of those respondents, 58% said that their experience was in research (students could select more than one option). This is in contrast to the Vancouver campus respondents of which 34% indicated that they had participated in experiential learning, and of those, 32% indicated that it was research. Figure 1 shows the types of experiential learning students indicated that they participated in by campus.

---

<sup>1</sup> The 2024 UES had an overall response rate (full and partial completes) of 17% for UBC Okanagan and 10% for UBC Vancouver.

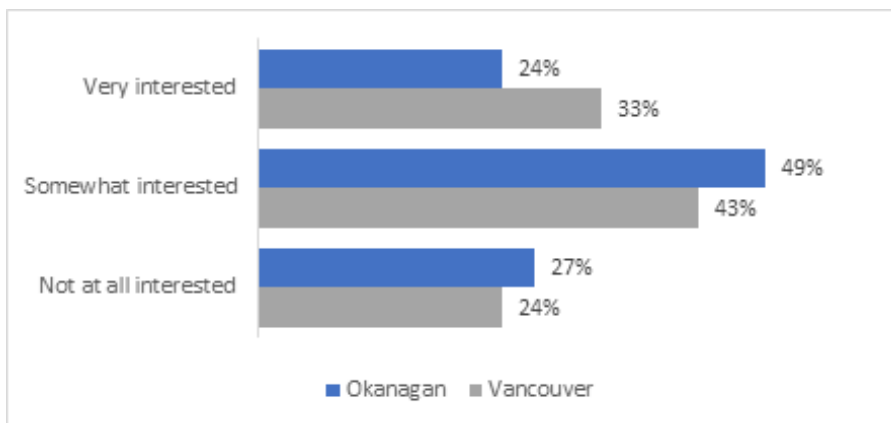
Figure 1: UES: Which types of Experiential Learning did you participate in? (Okanagan n=377; Vancouver n=1145)



UBC administered the NSSE in 2023 to first and fourth-year undergraduate students. This survey gathered information on student participation in high-impact practices<sup>2</sup>. Ten percent (10%) of all respondents at UBC Okanagan (n=124) and 15% of all respondents at UBC Vancouver (n=471) indicated that they had participated in research with a faculty member and roughly two-thirds (68%) of completed research experiences in the Okanagan occurred during the student’s third or fourth year of study.

Students who responded that they had not participated in research were asked whether they would consider participation if the barriers of cost, availability, time, etc. could be removed. Nearly three-quarters (73%) of respondents indicated a moderate or high level of interest in participating in research with a faculty member under these conditions as seen in Figure 2.

Figure 2: NSSE: How interested would you have been in the following opportunity: Research with a faculty member (Okanagan n= 160; Vancouver n= 299)



<sup>2</sup> High-impact practices include service-learning, learning community, research with faculty, internship or field experience, study abroad, and culminating senior experience. For further information, see the [National Survey of Student Engagement](#).

## Undergraduate Research Opportunities at UBC Okanagan

A range of opportunities exist for undergraduate students to engage in research at UBC Okanagan. These include mentorship programs and awards, research courses, co-curricular opportunities, employment and volunteer placements. The types of experiences included below illustrate this diversity, organized under internally funded programs, externally funded programs, Faculty-specific awards and programs followed by examples of both curricular and co-curricular opportunities.

### Externally Funded Opportunities

#### Tri-Agency Undergraduate Students Research Awards

Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Awards (NSERC-USRA), offer research work experience opportunities in science and engineering disciplines. These awards provide a subsidy of \$6,000 to hire undergraduate students to work on research-related projects. Faculties are required to top up the award to meet minimum wage requirements. NSERC-USRAs are available to Canadian and permanent resident student applicants who meet the eligibility requirements. Additionally, the Canadian Institutes of Health Research (CIHR) and Social Sciences and Humanities Research Council of Canada (SSHRC) Undergraduate Student Research Awards (USRA) offer awards for self-identified Black student researchers. See the [Black Student Pathway to USRA](#) for more details. Eligibility and Faculty-specific application processes are available through [UBC's NSERC webpage](#). In the 2022-23 fiscal year, UBC received approximately \$1,425,000 in USRA grants supporting 235 students in undergraduate research projects across both UBC campuses.<sup>3</sup>

### Internally Funded Programs

#### Work Study Program, UBC Okanagan

Subsidies of up to 80% of minimum wage are available through the [Work Study Program](#) to enable faculty and staff at UBC's Okanagan campus to create outstanding student employment experiences. With specific intent, the majority of Work Study funding is directed to student employment in research settings. Funding is awarded through a competitive application and adjudication process. Table 1 shows the number of positions supported through the Work Study program with a further breakdown based on research positions and student type.

---

<sup>3</sup> A full list of UBC's USRA award recipients, including projects and levels of funding, can be obtained using the search function on the NSERC Award Database: [https://www.nserc-crsng.gc.ca/ase-oro/index\\_eng.asp](https://www.nserc-crsng.gc.ca/ase-oro/index_eng.asp)

Table 1. UBC Okanagan Work Study Student Positions, May 2023-April 2024

UBC Okanagan Work Study Student Positions, May 2023-April 2024		
Work Study Position Types	Number of Positions	% of Total
Research Positions	171	66%
<i>Undergraduate Research</i>	123	72%
<i>Graduate Research</i>	48	28%
Non-Research Positions	90	34%
<b>Total Positions Supported</b>	<b>261</b>	<b>100%</b>

#### International Undergraduate Research Award, UBC Okanagan

The International Undergraduate Research Award (IURA) program supports international undergraduate students in faculty-led research projects that take place over the summer term. Funding for the IURAs is derived from the International Student Financial Assistance and Awards program managed by the International Student Initiative (ISI). IURA awards are administered in partnership with Faculties. In 2023, \$250,000 was available through the IURA program for awards of \$10,000 per student with an additional \$1,500 available for research expenses. In 2023, a total of \$145,544 was distributed to Faculties at UBC Okanagan to support 13 student awards in the following Faculties: Engineering (4), Faculty of Arts and Social Sciences (1), Faculty of Science (6), Faculty of Creative and Critical Studies (1) and Faculty of Management (1).

#### Indigenous Research Mentorship Program, UBC Okanagan

The [Indigenous Research Mentorship Program \(IRM\)](#) aligns with UBC’s Indigenous Strategic Plan [Goal 3: Moving Research Forward](#) and [UBC Okanagan’s Declaration of Truth and Reconciliation Commitments](#) to advance Indigenous teaching and research. This program offers Indigenous undergraduate students at UBC’s Okanagan campus the opportunity to gain research experience in their area of interest while working alongside a faculty mentor. While working under the guidance of their mentors, students also attend additional programming including workshops, social gatherings and a conference experience. All full-time, self-identified Indigenous undergraduate students are eligible to apply. In 2023/2024, fifteen Indigenous undergraduate students in a variety of year levels and disciplines participated.

Between 2016 and April 2024, 73 Indigenous undergraduate students have participated in the program. More than half of those students (60%) continued research with their supervisor in some capacity following their participation in the IRM. Twenty-three students have gone on to graduate studies or post-baccalaureate programs. Nine students have received NSERC-USRA, and three students have received Undergraduate Research Awards (URA). Starting in 2021, the IRM program was expanded to offer four student positions to continue their research projects full-time during the summer (May–August) each year. See [Strengthening Indigenous Community through Research](#) for additional program details and a student reflection.

#### Faculty-Specific Research Programs and Awards

Faculties offer a variety of programs engaging undergraduate students in research by supporting the internally and externally funded programs mentioned above in combination with Faculty-specific awards.

Faculty of Applied Science, School of Engineering

[The Undergraduate Student Research Awards](#) are available to UBC Engineering domestic and international undergraduate students. Students have the opportunity to complete a paid, full-time, 16-week work term by conducting research with faculty supervision. Domestic students can qualify for the NSERC-USRA. The NSERC-USRA provide \$6000 with an additional top-up amount from the Faculty to meet the BC minimum salary requirement. International students can qualify for the International Undergraduate Student Research Award (IUSRA). The IUSRA Awards are up to \$10,000 for a student salary stipend with an additional \$1,500 for materials costs. In 2024, 14 students received NSERC-USRA, among them 4 awardees are Black/Indigenous students. Additionally, three international students received IUSRA.

Irving K. Barber Faculty of Arts and Social Sciences

[The Undergraduate Research Awards \(URA\)](#) established by the Irving K. Barber Endowment Fund Advisory Committee, along with the IURAs referenced above, encourage undergraduate students in the Irving K. Barber Faculty of Arts and Social Sciences to pursue innovative and original research as part of their learning experience while at UBC's Okanagan campus. In 2023, awards of \$10,000 plus research expenses of up to \$1,500 were available and aimed primarily at students in their third year of study. Eleven students received awards (10 URA and 1 IURA). Project dissemination is held through a research symposium in the Fall of each year.

Faculty of Creative and Critical Studies

Faculty of Creative and Critical Studies Research Awards provide funding ranging from \$2,500-\$3,500 for undergraduate students in creative and critical studies to undertake research projects or creation activities under a faculty supervisor. The [IURA](#) supports undergraduate students engaging in research and creation activities over the summer months with a value of \$10,000 with up to \$1500 for materials and expenses. One IURA was awarded in 2023. Additionally, undergraduate research assistantships are possible depending on grant funding for particular projects.

Faculty of Health and Social Development

Students in the School of Health and Exercise Science (HES) have the opportunity to apply for the [Stober Foundation Undergraduate Research Fellowship](#), which provides between \$7,250 and \$9,500 toward undergraduate research projects in health-related fields with the goal of encouraging students to pursue graduate studies. In 2023, six students received a fellowship. HES also supports students through the NSERC-USRA. The School of Nursing faculty members welcome expressions of interest from undergraduate students interested in research/practicum opportunities through the [Nursing Research Knowledge Hub](#) and research training mentorship initiatives.

Faculty of Management

[Management Undergraduate Research Award \(MURA\)](#) subsidizes faculty supervisors to employ undergraduate students in summer research projects. The award includes up to \$10,000 toward a salary stipend and up to \$1,500 for project expenses. Third- and fourth-year students are eligible and projects can be of the students' own design or can contribute to an existing research project under the supervision of a faculty member. Three students received awards in 2023 (two IURA and one MURA).

Faculty of Medicine, Southern Medical Program

The Faculty of Medicine spans multiple sites. Undergraduate research programming particular to the Southern Medical Program includes the [Faculty of Medicine Summer Student Research Program](#) provides undergraduate students with an opportunity to explore their interest in health research by undertaking a summer project supervised by a Faculty of Medicine researcher. This program is offered across multiple sites and involves approximately 130 students per year. Both MD and non-MD undergraduate students are eligible.

The [Multidisciplinary Research Program in Medicine](#) provides undergraduate students with an opportunity to explore their interest in interdisciplinary and multidisciplinary research by undertaking a summer project supervised by a cross-faculty pair of researchers. Following the model established by MURPH, the program covers a salary stipend of up to \$9,400 per project for student wages and offers mentorship. Both MD and non-MD undergraduate students are eligible. Approximately 28 students per year participate.

Additional research opportunities for students in the Faculty of Medicine include:

- Faculty of Medicine Undergraduate Program (MDUP), Year 3 Research Scholarships (\$11,000/ 10 students per year)
- Faculty of Medicine MDUP, Southern Medical Program; The Colin & Lois Pritchard Foundation Award (\$9,600/ 2-4 awarded per year)
- Faculty of Medicine MDUP, Southern Medical Program; Centre for Chronic Disease Prevention & Management; [Clinical Research & QI Incubator Award](#) (\$12,000/ 2-5 per year)
- Faculty of Medicine [Medical Student Travel Award](#) (\$500 per student/ 48 awarded per year)

Irving K. Barber Faculty of Science

[The Irving K. Barber Undergraduate Research Awards \(URA\)](#) and IURA provide undergraduate science students with the opportunity to pursue innovative and original research as part of their learning experience. In summer 2024, nine students will hold a URA at \$11,000 each, and five students will hold an IURA at \$10,000 each (plus up to \$1,500 for research expenses). URA and IURA students are required to attend the URA summer program; students meet biweekly over lunch for two hours for presentations and workshops on topics related to scientific research. In August, the focus shifts to students preparing a poster about their research, which is aimed at a new first-year student. These posters are presented at the Faculty's Undergraduate Research



Poster Symposium in the first week of September. Posters are judged and three prizes are awarded for the most accessible posters. The symposium and reception are very well attended and have inspired new students to connect with professors and engage in research.

The Irving K. Barber Faculty of Science also supports students in research through the NSERC-USRA program. In Summer 2024, 12 students will hold the NSERC-USRA, 2 will hold the NSERC-USRA for Black Canadian students, and 3 will hold the NSERC-USRA for Indigenous students. NSERC-USRA students are invited to join the URA summer program, and usually about 60% participate and also present at the Faculty's Undergraduate Research Poster Symposium. IURA and NSERC-USRA students from the School of Engineering are also invited to participate in the summer program and the poster symposium.

The Irving K. Barber Faculty of Science encourages students to participate in international undergraduate research experience and assists them in their preparation of the applications. In the summer of 2024, two students will participate in the Mitacs Internship Scholarship in Germany through German Academic Exchange Services.

#### UBC Library

Awards supported through UBC's Libraries include the [Sharron Simpson Family Community Engagement Endowment Fund](#) at UBC Okanagan, which assists student projects that seek to enhance impactful university-community relationships with an emphasis on raising awareness of public history and regional identity. One to two awards per year of up to \$4,000 are available to UBC Okanagan students in any discipline. The UBC Library [Undergraduate Prize in Library Research](#) is open to both UBC Vancouver and Okanagan students and recognizes excellence in course-based research papers or projects emphasizing inquiry using the UBC Library collections and learning about the research/ information gathering process. Five prizes are awarded per year in the amounts of \$1000 (2 prizes) and \$2000 (3 prizes).

#### Curricular Research Engagement

Undergraduate students gain exposure to and build direct experience in research through applied research opportunities within their programs of study. Examples of course types that offer research engagement are listed below.

#### Thesis Courses

Students complete a substantive research project over an academic year under the supervision of a faculty member. Typically, thesis courses are completed as a culminating project required for an Honours Degree. Availability, application processes, and prerequisites may differ across programs. Examples include BIOL 440: Honours Thesis and HES 492: Honours Thesis.

### Directed Studies Courses

Students focus on a topic area and/or conduct original research under the supervision of a faculty member over one or two terms and earn course credit. Work is typically completed in third or fourth year with specific opportunities dependent on the Faculty and department. Examples include CHEM 448: Directed Studies and PSYO: 381 Directed Studies.

### Research Methods Courses

Courses emphasize research methodologies specific to the disciplinary context and their application. Examples include CULT 220: Research with Media in the Humanities and PSYO 270: Introduction to Research Methods and Design.

### Research Intensive Courses

Courses include a significant research component and/or research-intensive experience and are normally offered at the 400 level. Research intensive courses typically have prerequisites and are restricted to Majors in the discipline. Examples include HES 490: Projects in Health and Exercise Sciences and NRSG 440: Research Preceptorship, and CULT 499: Community-Engaged Research in Cultural Settings.

### Capstone Courses

Students apply knowledge gained from courses taken throughout their program to a self-guided project with the assistance of a faculty advisor. Examples include UBC Okanagan's Faculty of Management [Capstone Projects](#) and the Faculty of Applied Science's [Undergraduate Capstone](#).

### Co-op

Students enrolled in the co-op program earn credit while being supported through a work placement experience that extends over one or two academic terms. Work placements can include research positions on or off campus and with industry partners. See UBC Vancouver & Okanagan [Applied Science Co-op](#) and the UBC Okanagan [Interdisciplinary Co-op](#).

### Co-curricular Opportunities

#### Employment

Students may choose to extend their research experiences through employment in research settings. Undergraduate Research Assistant positions are posted throughout the year on the [student job board](#) and/or communicated through specific labs, institutes or departments.

#### Go Global

Through the Go Global [Research Abroad](#) program, students can apply to participate in structured or unstructured research opportunities offered through global partner universities. In the summer of 2023, five students took part in research activity supported through Go Global:

- Three of those students were through “structured” programs where students travel to another university with the support of Go Global to gain research experience in a structured, supported environment.
- Two of those students were through the “self-directed” pathway where students take part in research at a recognized university or research institute under the supervision of a host academic (i.e. students can study at any research or institute in the world with the support of a supervisor at that location so long as it is in an approved region for travel)

### Volunteer Placements

Many faculty members support undergraduate students as volunteers in research settings, and these experiences often act as an entry point into further research opportunities. An example of a structured volunteer opportunity is [Engineering Design Teams](#) with student volunteers collaborating on design projects to achieve a common goal. For example, the Faculty of Applied Science supports existing teams by providing workspace, funding, and mentorship; fosters the development of new teams; and encourages a wide range of collaboration with campus and external partners, helping teams achieve their potential.

Other volunteer opportunities can be less structured and may be posted through specific departments, institutes or labs or obtained by students who demonstrate their capacity, build connections within their departments or inquire directly.

### Student Clubs

Students may elect to get involved in research opportunities through participation in student clubs. A wide variety of research and design-focused clubs exist across UBC Okanagan and can be found through the Students’ Union Okanagan [student association directory](#). A notable example is the iGem Club which works to develop synthetic biology research projects and send a team to compete in the annual International Genetically Engineered Machine Competition. See a [UBC Okanagan feature story](#) on this club from July 2023 for additional information.

### Student Support

Undergraduate students interested in research have access to a variety of supports including access to the [UBC Okanagan Library](#) and specific resource centres including the [Centre for Scholarly Communication](#).

Students can further develop their creative and design projects at [makerspace UBCO](#), an interdisciplinary, peer-facilitated workspace designed to foster creative thinking through design and making. This space serves as a hub for innovation, cross-discipline collaboration and entrepreneurship.

In 2021, UBC Okanagan began piloting a peer-mentorship program to raise awareness across campus about undergraduate research and assist students in making connections and navigating and approaching research opportunities through the [Undergraduate Research Ambassador Program](#).

## Research Dissemination Opportunities

### Conferences and Research Events

Many dissemination opportunities are organized through Faculties in relation to the research programs and awards that they offer. Examples of supported opportunities at UBC that are open to undergraduate students to present their research projects include but are not limited to:

- [Interdisciplinary Student Health Conference](#), UBC Okanagan
- [Undergraduate Research Showcase](#), UBC Okanagan
- Multidisciplinary Undergraduate Research Conference, UBC Vancouver
- Faculty of Creative and Critical Studies [Year End Show](#)
- Irving K. Barber Faculty of Science and the Irving K. Barber Faculty of Arts and Social Sciences annual Undergraduate Research Poster Symposia, UBC Okanagan

### Student Journals

A number of departments, Faculties, or other units support undergraduate student journals in various fields allowing students to disseminate their research. Below is just a sample.

- [UBC Medical Journal](#)
- [Canadian Journal of Undergraduate Research](#), UBC Vancouver, student-run journal
- [RESPECT Magazine](#), UBC Okanagan, student-run journal