

CENTRE FOR
**SCHOLARLY
COMMUNICATION**

Undergraduate Research Awards Writing Workshop

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CENTRE FOR
**SCHOLARLY
COMMUNICATION**

The land we are situated on is the traditional, ancestral, and unceded territory of the Syilx Okanagan Peoples.



Book an appointment with us

- We can discuss your URA abstract and proposal
- Visit our booking website QReserve
 - Click “Sign in with Partner”, search for UBC, and login with your cwl
 - Click “Sites” and search for “UBCO – CSC & Library”
 - Join the site and book an appointment with us
- Contact us



Undergraduate Research Awards (URA): Purpose

To provide an opportunity for UBCO Arts and Sciences undergraduate students to pursue innovative research.



The Application Form

All forms found at the [URA website](#).

- [Application form for Faculty of Science](#).



Deadline: January 27th 2022 at 4pm

The Title

- Informative and creates interest
- Contains keywords



Word limit: Maximum 75 characters

What is the most important or central idea in your research project?

Title Examples

- Gratitude and well-being: a mediator analysis
- Evaluation of wine yeast viability in chemically defined grape juice medium
- Modeling wildlife habitat in the Canadian environmental assessment process
- Traction force microscopy and fluorescent live cell imaging to quantify cell adhesion forces



[Visit the URA website](#) for previous titles

Keywords

- Describe your research using key terms



Word limit: Maximum 5 words (or short multi-word terms)

Review your abstract and proposal to find hints about the most important terms in your research.

The Abstract

Locate: research topic or problem

Focus: knowledge gap, objectives, research questions, hypotheses

Anchor: main methods and/or theory

Report: expected results

Argue: significance or implications of the research



Example Abstract

“Terpenes are a class of compounds produced by a variety of plants, such as *Cannabis sativa* L., which often have a strong and distinct odor associated with them. The biosynthetic pathway responsible for most terpene synthesis in *Cannabis* is closely related to the pathway responsible for producing the psychoactive cannabinoids. There are hundreds of terpenes identified in *Cannabis*, however, previous work has shown that there are terpenes present which are currently unidentified. By using mass spectrometry and metabolomics, we hope to resolve the structure of these terpenes and use the metabolomics data to explore new biosynthetic pathways in *Cannabis*.”



-Quoted from a successful URA application

Previously Funded URA Topics

Visit the [URA website](#) to read previous abstracts.



- How has the author described their research background and research questions or goals?
- How has the author described the significance or implications of their research inside and/or outside of academia?

The Research Proposal/Description

Purpose: develop a solution to a problem, and/or address knowledge gaps by contributing to the knowledge of the field.



Research Description: Getting Started

Use these headings:

1. Introduction and Background
2. Research Questions and/or Objectives
3. Methodology
4. Significance and Impact



Start by creating a detailed outline using the headings

1. Introduction and Background

- Describe the importance of the problem or area of investigation.
- Briefly review the most relevant literature with citations.
- Identify the knowledge gap.



Brainstorm what is known about your research topic.
What is not known?

Example: Importance and Knowledge Gap

“One **important** sugar monomer of glycans is called Sialic Acid (Sia) which is **abundant** in the mucus, and plays **important** roles in microbial metabolism in the gut and host susceptibility to injury [...]

However, the impact of these modifications to Sia on host and microbe physiology in the gut is **not known.**”

-Quoted from a successful URA application



Academic Phrasebank: Identifying a knowledge gap

It is still not known whether ...

What is less clear is the nature of ...

Very little is currently known about X in ...

Research to date has not yet determined ...

It is now well established that ... However, the influence of X on Y has remained unclear.



2. Research Questions and/or Objectives

Decide what is suitable for your project:

- Research questions
- Objectives, goals, and/or aims
- Hypotheses



Write one sentence about the purpose of your project. Can you turn this into a question that you can answer? What objectives do you need to achieve to answer it? What outcomes (hypotheses) do you expect?

Example: Establishing Purpose and Objectives

“The objective of this proposal is [...]

We hypothesize that [...]

We will test this via three aims [...]”



-Phrases quoted from a successful URA application

Find more phrases to use in [Academic Phrasebank](#)

3. Methodology

Describe what you are going to do.

- Explain how each step will achieve your objectives.
- Describe tools or techniques you plan to use.
- Indicate how you might deal with challenges.
- Justify approaches that are new or unique.



For each of your goals/objectives, describe a method that you plan to use. Which steps will be most challenging and how could you address this?

Example: Explain how each step will achieve your objective

"To address our research question for Aim 1..."

"To address Aim 2..."

"To address Aim 3..."



-Quoted from a successful URA application

Example: Describe tools or techniques you plan to use

Samples will be analysed for X as previously reported by Vishak et al. (2012).



Analysis will be based on the conceptual framework proposed by Yang et al. (2002).

Find more phrases to use in [Academic Phrasebank](#)

Example: Indicate how you might deal with challenges

To rule out the possibility that X, the participants will...



In an attempt to make each interviewee feel as comfortable as possible, the interviewer will...

Find more phrases to use in [Academic Phrasebank](#)

Example: Justify approaches that are new or unique

This method is particularly useful in studying...



The semi-structured approach was chosen because...

Find more phrases to use in [Academic Phrasebank](#)

4. Significance and Impact

- Describe expected outcomes and impact.
- Describe the contributions of your research inside and/or outside of your discipline.
- Explain potential follow-up research.



Write down what you hope will be the “big picture” result of this project. What do you want to know? Who will this research help?

Example: Establishing Significance

"These findings will be **especially significant** given the increasing global awareness of the importance of host-microbe interactions, where fuller understanding of factors affecting their mediation of human health and disease **will lead to better treatments** for diseases such as Inflammatory Bowel Disease of the colon and intestine."

-Quoted from a successful URA application



The Research Proposal: Activity

Choose a phrase from Academic Phrasebank and start to write your claim for significance.



Visit the [link](#) in the chat to share your statement of significance

This is the first study to ...

This study provides new insights into ...

Understanding the link between X and Y will help ...

The present research explores, for the first time, the effects of ...

The findings should make an important contribution to the field of ...

Find more phrases to use in [Academic Phrasebank](#)

Creating an effective writing process

- Know your audience
 - Interdisciplinary and non-specialist audience
- Start early and consider your writing process
 - Outline, draft, revise, proofread
 - Discuss work with your supervisor at all stages
 - Brainstorming a research idea takes time – develop the goals and scope of the research early
 - When proofreading, try reading aloud
- Get feedback from outside of your research area too



Formatting

- Consider how you can make important ideas stand out
- Write in complete sentences
- Cite key literature
 - Form does not allow superscript notations for citations. Use in text citations like APA or Chicago Author/Date styles.
 - e.g: (Author et al, year) or (Author & Author, year)



Qualifications and Personal Impact Statement

- What experiences have you had that have prepared you for the project? (courses, research, volunteer work, etc.)
- Why are you interested in this research?
- Why did you choose this project?
- How does this project connect to your future goals?



Writing about Your Qualifications

- Academic training relevant to the project (courses, previous research experience)
 - Articulate clearly how past experiences or courses have specifically prepared you for this project.
- Demonstrate that you are able to work both independently and collaboratively
 - Consider including specific examples of previous employment and/or volunteer experiences.



Budget: \$1500 maximum for supplies

- Ensure your expenses are allowed (read the [list of appropriate expenses](#) (p.4), and ask if you're not sure). Some items that may not be allowed include:
 - Computer equipment
 - Conference travel
- Provide details, but group expendable supplies (e.g. chemicals, PCR supplies, etc.).
- Explain any unusual expenses.



Asking your Supervisor to Write the Statement of Support

- Ensure your proposed supervisor knows a lot about you. Consider providing your supervisor:
 - Your resume
 - Academic transcripts
 - More information about yourself, including previous experiences and future goals.



The URA Process: Submitting your application

There are 3 required signatures: yours, the supervisor, and the Department Head.



- Complete and submit Form A (with all attachments) to your supervisor **at least one week** before the deadline.
- The supervisor will complete Form B and submit the complete application to the Department Head before the deadline.
 - Check departmental deadlines – the deadlines are sometimes 2 days earlier than the final deadline
- You or your supervisor emails the complete application package (Forms A and B plus attachments) to fos.research.ubco@ubc.ca at the Dean's Office **by 4 p.m. on January 27, 2022.**

The URA Process: Transcripts

The Dean's Office can access high school transcripts directly on behalf of the student.



However p. 4 of the application guidelines indicate...

•NOTE: If the applicant has received credit for undergraduate courses taken outside UBC, it is the applicant's responsibility to obtain sealed transcripts from those institutions.

Check with the Dean's office to make sure they can access everything you need

The URA Process: Evaluation

After you submit your application:

- URA Coordinator ensures it is complete (signatures and transcripts)
- Applications are distributed to Selection Committee members; they read, score and rank applications, and submit scores to the URA Coordinator.
- Selection Committee meets to discuss and rank applications.
- A ranked list is sent to the Dean for consideration.
- Students are informed of the decision in March.



The URA Criteria (considered equally)

Quality of proposed Research

- Merit of research and potential impact on the field
- Strength of research design and overall feasibility of proposed research
- Interdisciplinary elements (not mandatory, but encouraged)
- Clarity, presentation, and logic of proposal, in language accessible by multidisciplinary audience.

Researcher's abilities, qualifications, and potential for growth

- Personal initiative
- Ability to think critically and analytically
- Ability to apply skills and knowledge
- Determination and ability to complete projects in a timely fashion
- Communication skills and ability
- Past academic achievement
- Relevant academic training and experience
- Other relevant experiences and accomplishments



The URA Process: Questions

Questions about the application process?

Robin Young

Assistant Professor, Biology

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The complete application package (Forms A and B plus attachments) with all signatures must be sent to: fos.research.ubco@ubc.ca by 4 p.m. on

January 27, 2022



THE UNIVERSITY OF BRITISH COLUMBIA

