Department of Earth, Ocean & Atmopspheric Sciences (EOAS) + Department of Curriculum & Pedagogy (EDCP)

Student-Curated Informal Learning and Engagement Spaces (SCI-LEnS)

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what is SCI-LEnS?

This project aims to produce a unique graduate course to UBC aimed at training science graduate students in effective science communication and outreach, with a particular focus on utilizing museums as spaces for exploring best practices for sharing science with the public.

that sounds cool!

tell me more about the course!

sure! the course will...

Train the next generation of researchers to be dynamic and engaging science communicators.

Equip graduate students to deliver complex, cutting-edge science to public audiences, peers, colleagues and the boarder science community.

Bridge the gap between complex scientific concepts and the public, bringing UBC research to public audiences in informal learning environments.

Centre the student learning on museum visits, case studies, class discussion, collaboration, and dialogue with experts.

our course modules

#1 Major topics in science communication

Scientists as storytellers, understanding your audience, communicating complex material, communicating with K-12 audiences

#2 Communicating science in Action - working with media

Digital media (podcasts, videos, social media), interview skills and practice

#3 Exhibit Design and other Self-Directed Learning

Museum exhibits, design principles and practices in museum settings

#4 Outreach Program Development and Guided Learning

Outreach planning and implementation, intentional design, object-centered learning

how will student learning be assessed?

Elevator Pitch: Students give a 3-minute research pitch with one visual slide, then evaluate peers. Pitches and visuals are revised based on feedback, self-evaluation, and module 1 learnings.

Student-facilitated Seminar: Students pick a syllabus topic, summarize a recent article, present with an activity and discussion. Aims to enrich class understanding.

Exhibit proposal & outreach activity: Students create exhibit proposal and STEM outreach activity to be showcased at a student-curated event in Pacific Museum of Earth for UBC community and public.

Class participation: Students will complete a self-evaluation on their participation based on specific criteria to justify their self-assessment scores.

what else can students expect?

Peer-to-peer teaching
Students will lead the class in discussion and exploration of course learning topics, encouraging active participation and critical thinking.

Field trips to Museums and Exhibit Design Firms
Students will explore science communication in action through visits to local museums and exhibit design firms, engaging with experts in the field.

Student-curated outreach event
Students will showcase their outreach activity at the Pacific Museum of Earth, sharing their science stories with audiences of all ages – a unique opportunity to engage with the public in a fun and non-indimidating space.

our team

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our collaborators

Sandy Eix | *Science World*
Tom Cummins | *Science World*
Michael Fairchild-Simms | *Science World*
Yukiko Stranger-Galey | *Barker Langham*
Jackie Chambers | *Beaty Biodiversity Museum*
Derek Tan | *Beaty Biodiversity Museum*
Jill Baird | *Museum of Anthropology*
Skooker Broome | *Museum of Anthropology*
Catherine Po | *NGX*
Dr. Danielle Ignace | *UBC Indigeneous Scholar*
Kallie Moore | *University of Montana*
Wylee Fitzgerald | *UBC Indigenous Consultant*
Richard Campbell | *Musqueam Knowledge Keeper*
Dr. Eileen van der Flier-Keller | *Simon Fraser University*

milestones

kick off event!

build modules!

visit our partners!

refine module development!

we are here!

our expected impact

Experiential Learning: The course emphasizes hands-on learning, with students creating and building as core learning objectives.

Student-Curated Informal Learning Space: An annual outreach event at UBC highlighting cutting-edge science, inspiring visitors to discover the value of science.

Cross-Faculty Collaboration: The project brings together experts in museum outreach, education, and exhibit design to strengthen the course's development and sustainability.

Incorporating Indigenous Knowledge: UBC Indigenous scholars provide guidance on incorporating Indigenous knowledge into science museums.

Pedagogical Exploration: Students will explore the pedagogical dimensions of museum exhibitions and work with scholars on contemporary exhibition development and educational messaging.

Public Engagement: The course aims to shift the lens through which scientists engage with the public, inviting the community into the museum to share academic endeavors.

We gratefully acknowledge the financial support for this project provided by UBC Vancouver students via the Teaching and Learning Enhancement Fund.