UBC Geography Flexible Learning Project

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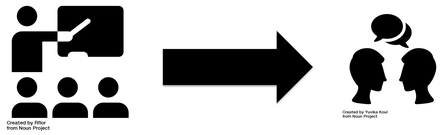
Vision for Teaching and Learning

Goals

1. Using blended and flexible learning approaches to enhance courses in the Department of Geography's Environment & Sustainability Program
2. Leveraging new learning environments, education technologies and innovative pedagogical approaches to help students explore emerging environmental issues and enhance their program experience
3. Develop research on teaching and learning in the context of Geography



Guiding Principles

- Outcome-based
- Purposeful use of education technology
- Promote active & experiential learning
- Transferable and sustainable resources
- Open education

Open Education

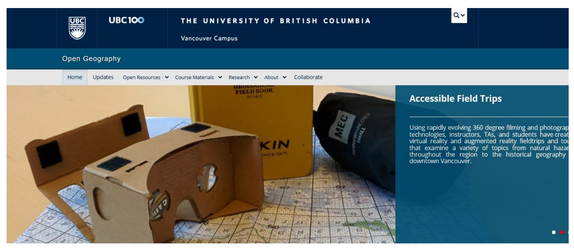
We are working to make learning opportunities for geography and environmental sciences more open, flexible and pedagogically diverse through creating Open Educational Resources (OER) that people can freely retain, reuse, revise, remix, and redistribute. We are building OER for teaching geography and environmental science while also working to educate geographers about importance and potential of OER. Current work includes:

Open Pedagogy and Open Science
Mapping the *Agricultural Land Reserve* was a student open science project that attempts to map the arable farmland in BC's ALR. http://blogs.ubc.ca/alrmap/

Open Educational Resources
Natural Hazards Open Textbook
360 Virtual and Augmented Reality Field Trips

Open Source Software
To manage our online field trips we created an open source WordPress plugin called FieldPress

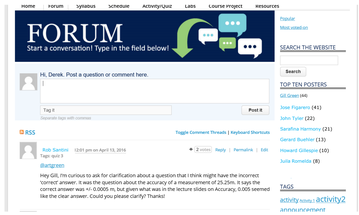
open.geog.ubc.ca

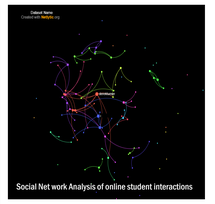


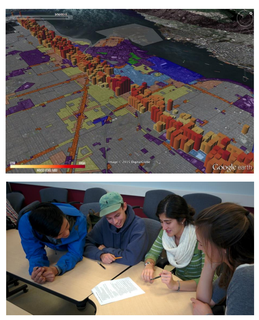
Course Transformations

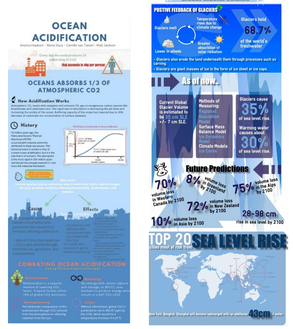
We have introduced flexible and blended learning approaches to over ten courses in the E&S Program and assisted over a dozen courses build WordPress course sites and OER materials. Our activities have included:

- Two-stage exams
- Infographics
- Google Cardboard
- PulsePress discussion forums
- Student created videos
- Podcasts for flipped material
- Sound mapping



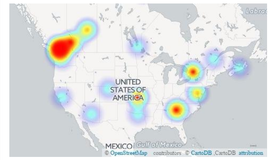


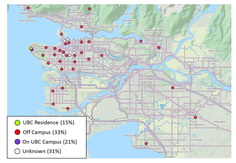




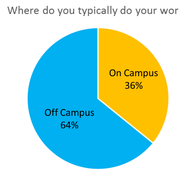
Where and When is Flexible Learning?

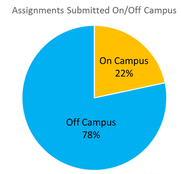
Evaluating the effect of flexible learning on where, when and how well students do their work



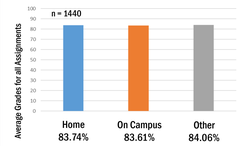


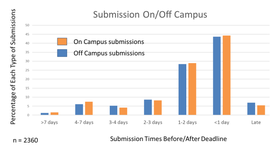
Using tracked IP addresses to locate student submissions



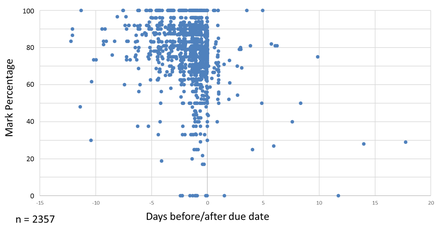


Comparison of where students said they typically work (left) and where they actually did the work for two courses (right)





Student performance and submission times based on locations

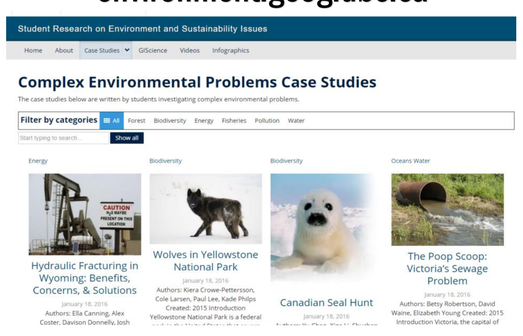


Submission times and student performance in online quizzes

Student Public Scholarship

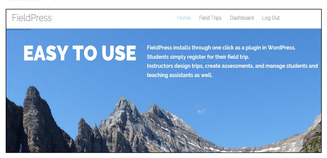
Geography students work at the intersection of some of the most pressing human-environment issues of our times. We encourage the students to create materials that can be used by the public. You can see our student's public scholarship at:

environment.geog.ubc.ca



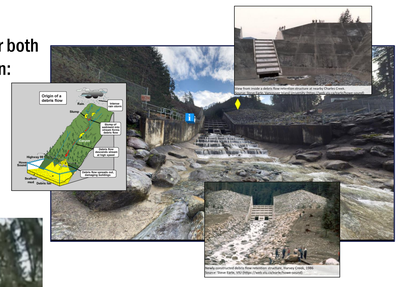
360º Virtual and Augmented Reality Field Trips

FieldPress.ca



We are leveraging new technologies to improve field based experiential learning and help overcome current barriers, for both students and faculty, that limit these opportunities. This can:

1. Promote experiential learning in Geography
2. Overcome costs and logistical barriers to fieldtrips
3. Allow flexible access for all students
4. Open up new spatial, temporal, and scalar dimensions



- Take students virtually to anywhere on Earth.
- Show them changing conditions over time.
- See the field site at different scales.
- Deliver mobile content on self-led fieldtrips.

Contact Information

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