


UBC Dep't Earth, Ocean & Atmospheric Sciences
 UBC Dep't Geography
 University of Central Asia

UCA / UBC Curriculum Development Partnership

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Opportunities for UBC-O EES




THE UNIVERSITY OF BRITISH COLUMBIA
 Faculties of Science and Arts




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<https://www.eoas.ubc.ca/people/francisjones>

Francis Jones – project coordinator



- 1982-1996: oil/gas -- glaciology -- instrumentation & geophysics
- 1996-2006: Geophysics, 12-mth Lecturer
 - Teaching applied geophysics
 - Support D. Oldenburg’s Geophysical Inversion Facility (GIF)
- 2007-2014: Science teaching & learning fellow, with the UBC’s CWSEI.



Carl Wieman Science Education Initiative at the University of British Columbia
- 2014-present: Grant-funded geoscience education development in EOAS:

<http://blogs.ubc.ca/eoassei/>
- 2016-present: Coordinator, UBC / UCA curriculum development.

<http://blogs.ubc.ca/eescourses/>



University of Central Asia - “Breaking New Ground”



<https://www.youtube.com/watch?v=nDyCSWkz3qk>

1 University, 3 countries, 3 campuses, 6 degree programs

<http://www.ucentralasia.org/Media/MultiMedia>

U. Central Asia
www.ucentralasia.org/

- Founded in 2000
- Professional and continuing education
- Graduate school of Development (professional & research)
- Institute of Public Policy and Administration (IPPA)
- Central Asian Faculty Development Programme (CAFDP)
- Mountain Societies Research Institute (**MSRI**)
- Undergraduate School of Arts and Sciences (Sept. 2016)
 - Six bachelor level programmes.

MSRI...

... conducts research for development with the goal to improve the well-being of mountain societies in Central Asia.

Generate original research & disseminate knowledge among mountain stakeholders, including co-development and co-teaching of UCA's academic programmes (EES).

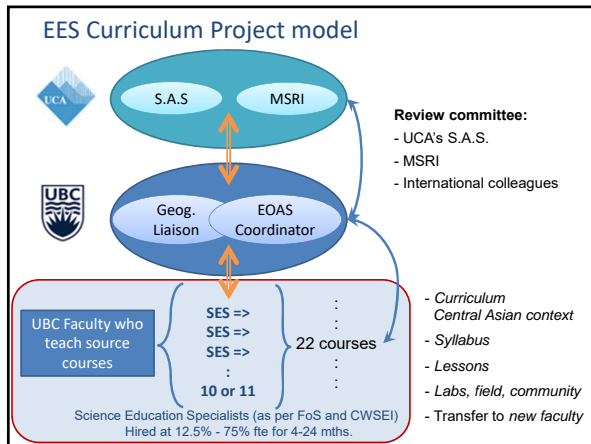
- Eleven university research-partnerships, including UBC. http://ucentralasia.org/Research/MSRI_Partnerships

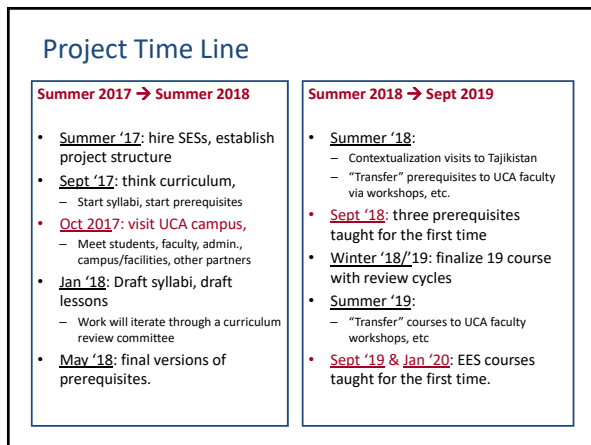
Core research themes include:

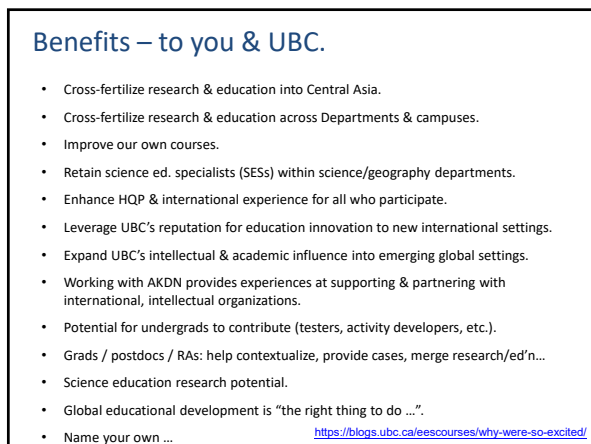
- Natural resources, their governance and management
- Land systems and livelihoods, including food security
- Social dynamics including migration and conflicts over natural resources
- Disaster risk reduction and management
- Biodiversity conservation

MSRI's cross-cutting research themes:

- Climate change and globalization
- Regional and intra-community development disparities
- Achieving the Sustainable Development Goals <http://ucentralasia.org/Research/MSRI>







Examples of possible Faculty contributions

The 22 courses are supposed to reflect UBC's best practices. Therefore, UBC faculty can contribute in several ways ...

- Share teaching / learning strategies & content from corresponding courses. (IP – as per UBC / UCA contract).
- Consult with SES; perhaps ~ 1hr / wk.
 - Honorarium: ~\$3000 for each of 22 UCA courses.
- Consult occasionally with SES, coordinators & UCA on priorities regarding fundamentals, applications, contexts, etc.
- Meet UCA faculty with mutual research / education interests.
- Possibly visit UCA at Khorog (summer 2019), if time & interest permit
- Support grads/PostDocs in education development opportunities

<https://blogs.ubc.ca/eescourses/files/2017/07/Faculty-expectations.pdf>

UCA degree structure

- Year 1 – Preparatory Program *(Seneca College, Toronto)*
 - Year 2 – “liberal arts” required courses *(Local)*
 - Year 3 – prerequisites for the degree
 - Year 4 – required discipline courses
 - Year 5 – electives
- } *(UBC)*
- Undergrad Minors & electives *(any campus)*
 - Co-operative Education Programme *(U. Victoria)*

Prerequisite courses – yr 3

Science for EES:

- P1 Intro. chemistry for Earth & environmental sciences
- P2 Intro. physics for Earth & environmental sciences
- P3 Evolutionary Ecology

Others from other degree programs:

- Computing
- Statistics
- Calculus 2
- Economics
- Law
- Philosophy & Religious Studies

Required EES courses – yrs 4, 5

Where do you see synergies with your own courses?

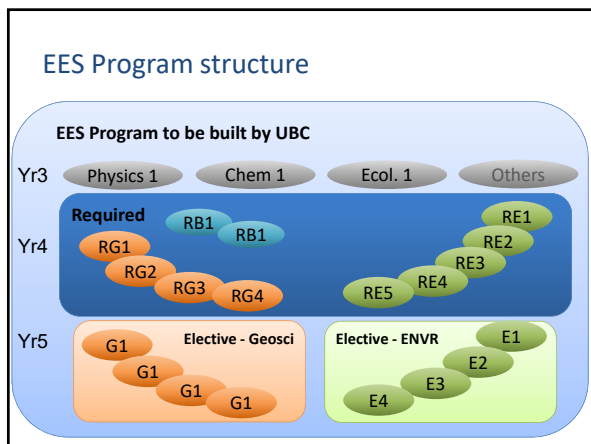
<p>General</p> <ul style="list-style-type: none"> • RB1 Mixed Research Methods • RB2 Introduction to GIS and Remote Sensing <p>Geoscience</p> <ul style="list-style-type: none"> • RG1 Introduction to Geology and Earth Processes • RG2 Introduction to Geological Materials and Resources • RG3 Surface Processes in Mountain Environments • RG4 Hydrology and Hydrogeology 	<p>Environmental Science</p> <ul style="list-style-type: none"> • RE1 Ways of Knowing: Mountain Environments in Thought and Practice • RE2 Environmental Governance: Water, Air, Land, and Biosphere • RE3 Environment and Development in Mountain Regions • RE4 Science, Impact, and Complexity of Climate Change • RE5 Natural Hazards and Risk Management in Mountain Regions
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Specialized EES courses – yr 5

Where do you see synergies with your own courses?

<p>Geoscience</p> <ul style="list-style-type: none"> • G1 Geochemistry • G2 Geodynamics and Structural Geology • G3 Sediments, Stratigraphy and Hydrocarbon Resources • G4 Minerals, Petrology and Mined Resources 	<p>Environmental Science</p> <ul style="list-style-type: none"> • E1 Conservation Science • E2 Applied Ecology • E3 Environmental Impact and Risk Assessment • E4 Advanced GIS and Remote Sensing
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+ electives, with option for 1 term at another campus



Questions? Comments?

- Thanks for your interest!

Francis Jones, fjones@eoas.ubc.ca



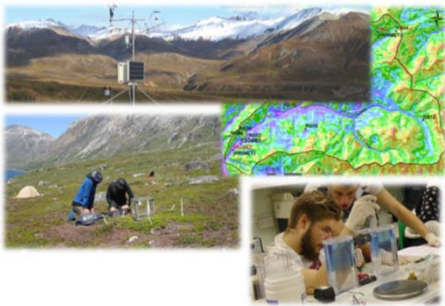
UCA UNIVERSITY OF CENTRAL ASIA

Khorog campus, Tajikistan

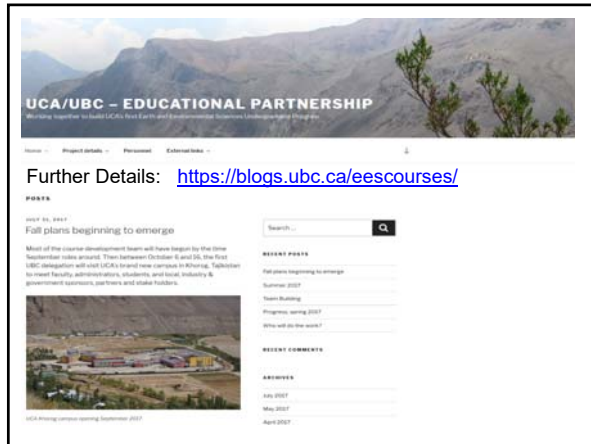


https://www.youtube.com/watch?time_continue=4&v=Cyv-fEPqfs4

B.Sc. Earth and Environmental Science



<http://www.ucentralasia.org/Admissions/EarthAndEnvironment>



UBC Faculty already expressed interest:

- Roger Beckie – EOAS Head
- Marwan Hassan – Geog Head
- Loch Brown – Geog instructor (Geog liaison, on leave 'till May)
- Brett Eaton – Geog professor (Geog Liaison, *pro tem*)
- Tara Ivanachko – EOAS instructor (director, ENVR prgrm)
- Stuart Sutherland – EOAS teaching professor
- Brett Gilley – EOAS instructor
- Sara Harris – EOAS teaching professor (new FoS Assoc Dean, academic)
- Kirsten Hodge – EOAS lecturer and PME curator
- Doug Oldenburg – EOAS professor
- Sarah Sherman – EOAS Lecturer / SES
- Michele Koppes – Geog professor
- Siobhan McPhee – Geog instructor
- Jackie Stewart – Chemistry senior instructor
- Others soon we hope ... ☺
