

ESPP Weekly News Roundup

November 18, 2022

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ESPP News and Announcements

Course Announcements

ESP 802: Human Systems and the Environment with Dr. Moran | Spring 2023

Spring 2023 enrollment has begun! One of the courses offered by ESPP and also a required course for the dual major doctoral students is ESP802: Human Systems and the Environment. Attached please find the flyer for the course from Dr. Moran. The class will meet on Tuesdays between 9:10 am to noon in

Berkey 115. Students who are interested in the topic but not yet in the dual major degree program should be able to enroll as well, but need to contact Dr. Moran in advance. See attached.

ESP 836 modeling natural resource systems with Dr. Schmitt Olabisi | Spring 2023

During Spring 2023, Dr. Schmitt Olabisi will offer ESP 836 (Modeling Natural Resources Systems) which is also cross listed as CSUS 836 and FW 836. Enroll in this course to learn systems thinking and system dynamics modeling with a focus on environmental policy applications. We will explore why the atmosphere is like a bathtub, how to keep fisheries from crashing, and will go head-to-head with U of M modeling students in the first ever intra-state SD battle! Attached please find the syllabus for the course. This course is part of the ESPP Graduate Certificate in Environmental and Social Systems Modeling program . The certificate program is available to all graduate students on campus, but students need to apply separately. Applications for the Fall Semester are due February 1 and applications for the Spring Semester are due October 15. Even before being admitted to the certificate program, one still can enroll and take the modeling courses. Please contact Dr. Schmitt Olabisi if you have any questions. Interested? Enroll now! Since it is available to all graduate students, feel free to share this with your peers and friends who may not be ESPP students and bring them along. See attached.

CAS 892-001: Risk Communication | Spring 2023

Wednesdays 11:30-2:20. Learn to apply the evidence-based ideas behind effective risk communication practice through small-group discussion, selected readings, and hands-on exercises. This course is suitable for masters' students want to learn how to become better risk communicators and Ph.D. students who want to integrate risk communication theory into their own research or engagement efforts. Key topics to be discussed include the communication of risks and benefits, social norms, self-efficacy, trust, emotion, and framing. See attached.

GLG 813: Watershed Hydrology Course | Spring 2023

This course is designed for a broad audience of environmental scientists and engineers. The course teaches students to define the key physical descriptions of how water moves into, through, and out of hillslopes to streams, and interpret how this information can and should be utilized in model formulation, calibration, and testing at variable catchment scales. Students will also gain experience with transferable skills such as how to critically read and synthesize scientific journal articles, peer-review writing products, and give oral and written presentations. (more details in the attachment). Note this is the first time the course is being offered in two years due to sabbatical. And in the future it will only be offered every other year (on odd years), so the next offering will be Spring 2025.

Graduate School Announcements

Graduate School Write-In | 11-18-22 | 9 AM-12 PM

The write-ins are hosted and facilitated to provide writers with an opportunity to write in a shared writing space where other writers are present, and a writing center consultant/staff member is present

to provide consultations for writers who would like to have a consultation appointment during the session. [Learn more and register here.](#)

CCT Scaffolding Session | 11-21-22 | 4:30-5:30 PM

If you have attended any of our Certification in College Teaching Institutes in the last couple years, we invite you to join our scaffolding session to help you complete your Certification in College Teaching. In this session we will help clarify requirements, answer questions regarding the completion process, your teaching philosophy, your mentored teaching project, and associated assessment methods as well as your e-Portfolio completion. [Learn more and register here.](#)

ETD Submission Deadline | 12-1-22 @ 5 PM

Each semester has a deadline for the initial submission of theses and dissertations to ProQuest. The deadline is generally two weeks prior to the final deadline. Plan your defense accordingly. The document submitted to ProQuest is expected to be a final version, meaning it has been successfully defended, corrections the committee wants have been made, and there are no more content changes. Students are highly encouraged to read and follow the Thesis and Dissertation information available on the Graduate School's website at: <https://grad.msu.edu/etd>. This site gives instructions on formatting, required paperwork, and how to submit to ProQuest. The Graduate School will not accept documents for review for the current semester after 5 p.m. ET on the submission deadline date.

Graduate Assistantships in the EY Communication Center AY 23-24 | Deadline 12-14-22

The EY Communication Center (EYCC) is seeking two communication consultants to join their team for the 2023-24 academic year. The consultants will develop the professional communication skills of M.S. students in the Department of Accounting and Information Systems in the following areas: business writing, public speaking, teamwork, resume development, and interviewing. [Learn more here.](#)

CIRTL Spring 2023 Programming

CIRTL's Spring 2023 online programming includes two courses, a MOOC, three workshops, and two event series. Programming will run January through April. Stay tuned for schedule details and registration information. [Learn more here.](#)

Season of GRADitude 2022

Beginning Monday, November 21, the Graduate School is celebrating a season of GRADitude. We encourage staff, students, and faculty to share stories about MSU graduate students and why you're grateful for them. The MSU community will be able to vote on the stories that speak most to them. [Learn more here.](#)

Scholarships, Awards, & Fellowships

NatSci Great IDEA Fellowships | Due 12-1-22

The College of Natural Science is launching a new graduate fellowship to enable mentored projects that promote Inclusion, Diversity, Equity, and Accessibility (IDEA) in STEM at MSU. The Great IDEA

Fellowships will be awarded by competitive process to 8-10 graduate student-mentor pairs who commit to dedicating a portion of their efforts to advancing IDEA efforts during spring semester, 2023. The Great IDEA fellowships will cover one semester of grad student stipend, up to 9 credits' tuition, and fees in SS23. IDEA Mentors can be the primary research advisor/guidance committee chair or another appropriate faculty/staff person at MSU. See attached for more details.

Durham University – Addison Wheeler Fellowships | Due 1-10-23

Durham University invites applications for three Addison Wheeler Fellowships, 36-month postdoctoral positions commencing on October 1, 2023. This scheme is intended to provide early career researchers of outstanding promise with an opportunity to complete a major project. It is open to scholars from any discipline and of any nationality. [Learn more here](#).

Workshops, Events, & Other Opportunities

Where the Waters Meet: Intercultural Science in the Pulewillimapu, Southern Chile | 11-18-22 | 3 PM

Please join us on November 18th at 3:00 in McDonel C 103 for a lecture by Dr. Sarah Kelly. The title of her talk is "Where the Waters Meet: Intercultural Science in the Pulewillimapu, Southern Chile." Please see the attached flyer for more information about Dr. Kelly's talk and her long-term collaborative and interdisciplinary research in Southern Chile.

On Campus Thanksgiving Dinner Opportunity | 11-24-22 | 12-2 PM

For anyone who is interested, there is a Thanksgiving Unity Dinner being provided to students who are around campus on Thanksgiving Day from 12:00-2:00 (family members are included). You have to register to attend. They are also looking for volunteers to help. If interested in either, please go to the website and sign-up: <https://eatatstate.msu.edu/event/thanksgiving2022>.

Job Opportunities

MEMORANDUM

To: NatSci Graduate Training Community

From: Amy Ralston, Associate Dean for Graduate Studies

Subject: Funding Opportunity Announcement – NatSci Great IDEA Fellowships

Date: 11/16/2022

Award description:

The College of Natural Science is launching a new graduate fellowship to enable mentored projects that promote Inclusion, Diversity, Equity, and Accessibility (IDEA) in STEM at MSU.

The Great IDEA Fellowships will be awarded by competitive process to 8-10 graduate student-mentor pairs who commit to dedicating a portion of their efforts to advancing IDEA efforts during spring semester, 2023. The Great IDEA fellowships will cover one semester of grad student stipend, up to 9 credits' tuition, and fees in SS23. IDEA Mentors can be the primary research advisor/guidance committee chair or another appropriate faculty/staff person at MSU.

Expectations for the Great IDEA Fellows, and their mentors during spring semester 2023 include:

- 25% student effort toward an IDEA project and 75% effort toward dissertation research and/or coursework
- Weekly one-on-one meetings with IDEA Mentor to advance IDEA project goals
- Biweekly meetings of the IDEA Fellows cohort
- Once per semester meeting with NatSci communications to highlight and promote the work of the Great IDEA fellows
- Mid-semester written progress report
- Final presentation to MSU community

Criteria for selection may include:

- Track record of contributions to IDEA work by student and/or mentor
- Evidence of research advisor's support for student's IDEA work
- Potential for the IDEA project to have a major or sustained impact on the research climate at MSU
- Potential for the IDEA project to elevate recognition or perceptions of the research climate at MSU
- Innovativeness of the IDEA project
- Feasibility of the IDEA project (including plan details, milestones, measures of success/impact)
- Student scholarly achievements

Eligibility:

- Graduate students must be in good standing in a NatSci graduate program
- Graduate students who have accepted a TA assignment for SS23 are not eligible to apply

To apply:



**College of
Natural Science**

Office of the Dean

Natural Science Building
288 Farm Ln, Room 104
East Lansing, MI 48824

517-355-4470

Fax: 517-432-1054

naturalscience.msu.edu

Submit the following five documents, submitted as a single PDF, in this order to starn@msu.edu by 12/01/2022 at 11:59 pm:

1. Student CV highlighting scholarly achievements and past contributions to IDEA work
2. Student-written proposal for IDEA project in SS23. The plan should address the following elements (in any order) in 1-3 pages:
 - a. Title and purpose of the IDEA project
 - b. Description of how the IDEA project is innovative
 - c. Description of the IDEA project's potential impact on the MSU research climate
 - d. Description for the IDEA project's potential to elevate recognition or perceptions of the MSU research climate
 - e. Weekly goals for the IDEA project, plus key milestones or measures of success
3. Mentor CV highlighting past contributions to IDEA work
4. Letter of commitment from primary research advisor/committee chair (only in the case that the IDEA mentor is someone other than the primary research advisor)
5. Most recent graduate guidance committee report or student annual performance review (no older than 12 months prior to nomination due date).

Please direct your questions to: aralston@msu.edu



Globally, we are witnessing challenges over stressed water resources. Historical baseline levels are shifting for water quality, precipitation, and flood levels among other expressions of the water cycle. Climate change is exacerbated by water-intensive economic development across sectors. As a result, slow-onset water-related disasters are growing more common. In response, communities around the world are conducting scientific studies of their lands and water. In this talk, I reflect on nearly a decade of collaboration in Mapuche-Williche territory of southern Chile to study waters. I share challenges, innovations, and stories from overlapping methodological engagements with Williche communities and interdisciplinary researchers. Methods include group transect floats, participatory mapmaking, water quality samples, ethnographic inquiry, and policy analysis. Intercultural science, I suggest, provides a way to foster more resilient communities, yet it requires cultural change in our environmental institutions.



WHERE THE WATERS MEET: INTERCULTURAL SCIENCE IN THE PULEWILLIMAPU, SOUTHERN CHILE

SARAH KELLY

Dr. Sarah Kelly is a geographer who specializes in interdisciplinary and applied research on water and energy justice in the Americas. Trained as a community-based participatory researcher, she is a postdoctoral scholar in the Department of Geography and a Research Associate at the Irving Institute for Energy and Society at Dartmouth College. Together with Dr. Maron Greenleaf, she founded the Energy Justice Clinic at Dartmouth for engaged scholarship and education. She is also part of CIGIDEN, a disaster research center in Chile.

Friday

November 18

3:30- 4:30 PM

McDonel Hall Rm C103

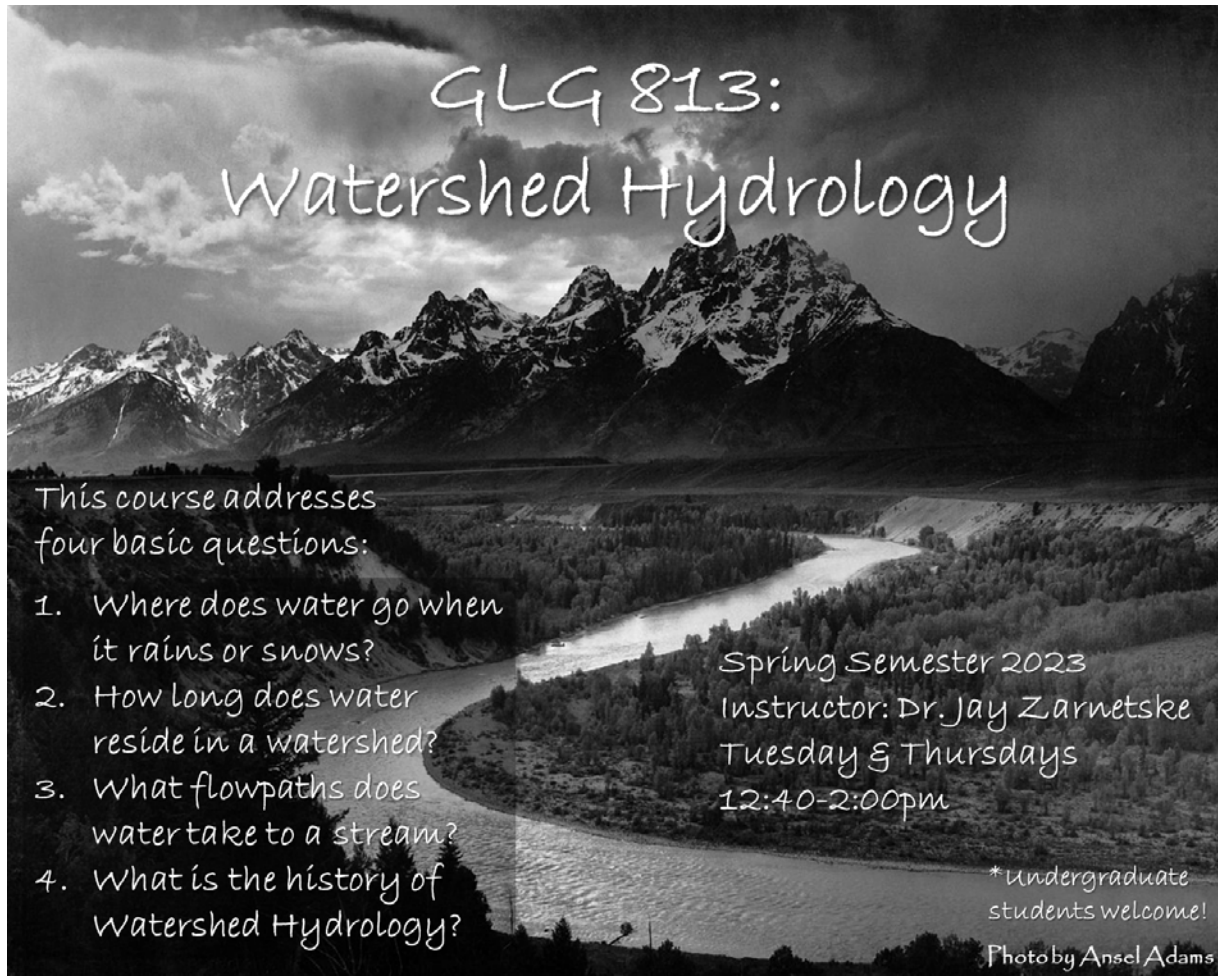
or

<https://msu.zoom.us/j/991>

46869800

Passcode: ANP@MSU





Overview: This course is designed for a broad audience of environmental scientists and engineers. The course teaches students to define the key physical descriptions of how water moves into, through, and out of hillslopes to streams, and interpret how this information can and should be utilized in model formulation, calibration, and testing at variable catchment scales. Students will also gain experience with transferable skills such as how to critically read and synthesize scientific journal articles, peer-review writing products, and give oral and written presentations.

Approximate Course Outline by Topic (subject to change)

1. Plot Scale

- 1.1. Physical properties, vertical water flow and solute transport
 - 1.1.1. Soil structure and properties
 - 1.1.2. Water content and water potential
 - 1.1.3. Unsaturated and saturated water flow and solute transport
 - 1.1.4. Preferential flow
- 1.2. Experiments and case studies
- 1.3. Conceptual modes and runoff generation processes
 - 1.3.1. Overland flow (Horton, Saturation) and Percolation
 - 1.3.2. Infiltration (Green-Ampt, preferential flow)
 - 1.3.3. Reservoir models

2. Hillslope Scale

- 2.1. Lateral water flow and solute transport
 - 2.1.1. Overland flow
 - 2.1.2. Unsaturated and saturated water flow
 - 2.1.3. Preferential flow
 - 2.1.4. Solute transport
- 2.2. Heterogeneity (hillslope geometries, and soil properties)
- 2.3. Experiments and case studies
- 2.4. Conceptual models and runoff generation processes
 - 2.4.1. Types of hillslope response
 - 2.4.2. Simple lateral flow and transport model
 - 2.4.3. Other models (e.g., bucket model, TOPMODEL)

3. Catchment Scale

- 3.1. Patterns and processes at the catchment scale
 - 3.2. Methods for quantifying runoff source and stream flow components
 - 3.2.1. Tracers: conservative and non-conservative, stable isotopes
 - 3.2.2. How discrete catchment units connect and disconnect in space and time
 - 3.3. Experiments and case studies
 - 3.4. Conceptual to quantitative modeling approaches: linking measurements to models and model uncertainty
 - 3.4.1. Model uncertainty, parameter identifiability, distributed vs. lumped parameter estimations
 - 3.4.2. How much complexity is necessary in rainfall-runoff models?
 - 3.4.3. How to link measurements and models (literally and philosophically!)
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