UPCOMING EAPS MEETINGS

SPRING FACULTY MEETING SCHEDULE

Feb. 10th (Dean’s Visit to Dept.),
Mar. 24th, and Apr. 14th, 2015
3:00-4:30 p.m.
HAMP 3201

GRAD EXPO
February 27th & 28th, 2015

OTHER IMPORTANT DATES TO REMEMBER

FORM 40s DUE
March 14, 2015

EAPS DISTINGUISHED SCIENCE ALUMNI AWARD RECEPTION
April 17, 2015

EAPS ANNUAL AWARDS BANQUET
April 20, 2015
Ross-Ade Pavilion
5:30-9:00 p.m.

EAPS ALUMNI ADVISORY BOARD MEETING
April 21, 2015

EAPS COLLOQUIA

Professor Jane Willenbring
Univ. of Pennsylvania
“What Caused Late Cenozoic Cooling? Reconciling Chickens, Eggs, and Other Beasts”
Thursday, Feb. 12, 2015
3:30 p.m.
HAMP 1252

EAPS COLLOQUIA-cont.

Yue Zheng
PhD Candidate
“Impacts of Land-Atmosphere Interactions on Regional Convection and Rainfall”
Tuesday, Feb. 17, 2015
4:00 p.m.
HAMP 2201

UNDERGRADUATE AND GRADUATE STUDENT INFORMATION

DEADLINE FOR SUBMISSIONS TO THE JOURNAL OF PURDUE UNDERGRADUATE RESEARCH

EAPS undergraduate researchers, graduate student mentors, and faculty: the deadline for submission to Vol. 5 of JPUR is February 15th. You are encouraged to submit a paper proposal highlighting your research efforts at Purdue. Student authors will benefit from experiencing the scholarly publishing process; from submission, through review and development, to formal publication. They will learn valuable lessons in scientific writing and publication ethics. Published articles will be tangible evidence of achievement, valuable for their future careers. Details of the submission process can be found at http://docs.lib.purdue.edu/jpur/.

PURDUE JOURNAL OF SERVICE-LEARNING AND INTERNATIONAL ENGAGEMENT

Proposals are being accepted for the second volume of Purdue journal of service-learning and international engagement.
The deadline has been extended to March 1, 2015.

Undergraduate and graduate students who wish to submit an article are asked to submit an abstract on the journal website at http://docs.lib.purdue.edu/pjsl/.

* A reflective essay discussing an experiential learning project (2,500 to 3,500 words).

* A service-learning snapshot that provides a short description of a service-learning project (250-500 words).
* A profile interview that is an interview of a nonprofit/community partner or a faculty member involved in service-learning and/or community engagement.

For more information, contact Patti Darbishire at darbishi@purdue.edu or visit http://goo.gl/SIImcG.

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INDIANA VIEW SCHOLARSHIP

This is an announcement of the IndianaView student Scholarship Program. Up to six $1,000 scholarships will be funded for undergraduate or graduate students using remote sensing and/or other geospatial technologies in the ten educational institutions that are a part of the IndianaView consortium. IndianaView Educational Institutions are:

- Ball State University
- Indiana State University
- Indiana University - Purdue University at Indianapolis
- Indiana University
- Indiana University South Bend
- Martin University
- Purdue University
- Purdue University Calumet
- University of Notre Dame
- Vincennes University

The applications are due March 13, 2015. The funding for the scholarships will need to be used by September 30, 2015. Please see flyer for more details.

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OPERATION WALLacea

A biodiversity research and conservation management organization hosting scientific expeditions in Indonesia, Transylvania, South Africa, Madagascar, Peru, Guyana, Honduras and Mexico. These research sites are run in remote locations with the help of university volunteers and academics from around the world.

Students can join the research expeditions during the summer months to gain experience with field research and data collection:

http://opwall.com/undergrad-research-assistants/research-assistant-overview

Research Assistants - volunteers gain experience performing various survey methods and taking field ecology training courses; serves as a volunteer-based internship and some credit options are available.


Thesis Students - Operation Wallacea provides support for students to collect data for a thesis project at the undergraduate or Master’s level.

http://opwall.com/undergrad-research-assistants/medical-courses

Expedition Medicine Course - a chance for Pre-Med students to experience field medicine with expedition teams working in remote areas.

There are funding opportunities available from within our organization:

http://opwall.com/about-us/alfred-russel-wallace-grants

Most importantly, all the research goes towards protecting valuable ecosystems by leveraging funding and monitoring the success of various conservation management strategies. To learn more about these research opportunities and conservation management programs, please feel free to email us at USA@opwall.com for more details.

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THE PURDUE UNDERGRADUATE RESEARCH AND POSTER SYMPOSIUM

Tuesday, April 14, 2015
PMU North and South Ballrooms

This is a great opportunity to showcase your research!

Apply by March 13:
http://www.purdue.edu/research/Ugrad/.

Please see attached flyer.

OTHER NEWS

AMAZON @ PURDUE OFFICIALLY OPENED
January 30, 2015

Purdue University and Amazon officially opened Amazon@Purdue, Amazon’s first-ever staffed customer order pickup and drop-off location on Tuesday, Feb. 3rd.

Purdue President Mitch Daniels and Paul Ryder, Amazon vice president of media and student programs, will speak at the opening, scheduled for 11 a.m. in the Amazon@Purdue location in Krach Leadership Center.
DEADLINE SET FOR PURDUE TRASK INNOVATION FUND APPLICATIONS
February 27, 2015

Purdue University inventors who are prepared to advance Purdue technologies toward commercialization can submit applications for Trask Innovation Fund awards through Feb. 27th.

The awards are competitive, and faculty and staff at all Purdue campuses, colleges, schools and departments are eligible. Applications must describe commercially relevant work that can be performed over a six-month period that furthers the development of a Purdue-owned technology that has been disclosed to the Purdue Research Foundation Office of Technology Commercialization. Other information about applications is available at http://otc-prf.org/trask-innovation-fund.

The Trask Innovation Fund Advisory Council manages two rounds of funding each year. The council is composed of representatives from the local business community, Purdue Research Foundation, Purdue University Office of the Executive Vice President for Research and Partnerships, and Purdue faculty. The advisory council will meet in late April or early May to determine this round’s award recipients.

In this round of awards, selected projects from the Purdue College of Agriculture will have the opportunity to be awarded additional funding from Romney, Indiana-based Ag Alumni Seed Improvement Association Inc.

The most recent round of awards saw six Purdue researchers receive almost $150,000 for five projects, including a continuous-flow solar UV water disinfection system and a device to assess gait parameters and predict falls.

For information about the Trask Innovation Awards, contact Brooke Beier, Project Manager II, Purdue Research Foundation Office of Technology Commercialization, 765-588-3464, blbeier@prf.org.

The Helping Hands Award is a student hosted event that is dedicated to honoring Purdue faculty and staff who have been outstanding in their professional and personal lives, all while serving as a mentor to those around him/her. Last year, they honored Dr. William Harper with their 1st Helping Hands Award. Their selection committee determined that his outstanding work with PALS, direct involvement, and passion for his students was due to be recognized and they were privileged to be given that chance.

They would very much appreciate if you could pass this message along so they may receive nominations from faculty and staff on behalf of their exceptional colleagues. They would also like to personally ask you to nominate a current mentor from your experience here at Purdue for this commendable award. To nominate, please follow the link provided below; it will ask for their contact information as well as to why you wish to honor this candidate. Nominations will be open until February 28th.

https://docs.google.com/forms/d/1M6Zl0UIGtwkJDUeWNCTywL75tn41G-m3yO2EBiJY50/viewform?usp=send_form

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HELPING HANDS MENTORING AWARD

Daniel Jenkins, the President for the Purdue University Chapter of College Mentors for Kids is reaching out on behalf of his organization, which is passionate about mentoring at-risk youth in the Lafayette community, because he knows that mentoring doesn't stop throughout life. Their actions are influenced by the mentors they have had whom encourage them to succeed, whether we know it or not. On April 8th, they will be hosting the 2nd Annual Helping Hands Awards to honor those mentors in the Purdue community.

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BIOINFORMATICS CORE-SERVICES AND RESOURCES
Tuesday, February 17, 2015
10:00 AM - Noon
Lily 117

This seminar introduces various services and resources provided by the Bioinformatics Core using RNA-Seq analysis as an example. The discussion will also include a brief introduction of Next Generation Sequencing (NGS), with reference to various Illumina systems, including the types of sequencing (paired or single end), length of reads and number of reads per lane, output data file formats, measures of quality, etc. and their suitability for different types of applications. The seminar includes a presentation of about 45 min. followed by Q & A. Participants with varying schedules are encouraged to join the discussion anytime between 10 AM and noon.

Light refreshments will be provided.

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BIRTHDAYS

Yuch-Ning Shieh Feb. 15th
IMPORTANT NOTICE ABOUT THIS NEWSLETTER
This newsletter is used as the primary information source for current and upcoming events, announcements, awards, grant opportunities, and other happenings in our department and around campus. Active links to additional information will be provided as needed. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well. Those using paper copies of the newsletter should go to our newsletter archive on the EAPS website at www.purdue.edu/eas/ and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Fallon McQuern (fmcquern@purdue.edu) by 5:00pm on Thursday of each week for inclusion in the Monday issue.

If it is in the newsletter, we assume you know about it and no other reminders are needed. For answers to common technology questions and the latest updates from the EAPS Technology Support staff, please visit http://www.purdue.edu/eas/info_tech/index.php.

Also, as an additional resource for information about departmental events, seminars, etc., see our departmental calendar at http://calendar.science.purdue.edu/eas/seminars.
Mountain uplift, erosion and climate change have been inexorably linked in published research over the last 25 years because of reported correlations and feedbacks between erosion, silicate weathering and the carbon cycle. During this talk, I will synthesize weathering fluxes, global sedimentation rates, sediment yields and tectonic motions to show a remarkable constancy in the pace of Earth-surface evolution over the last 10 My and support the null hypothesis - that global rates of landscape change have remained constant over the last ten million years, despite global climate change and mountain building events. This work questions the hypothesis that increased weathering due to mountain building or climate change was the primary agent for a decrease in global temperatures.
Impacts of Land-Atmosphere Interactions on Regional Convection and Rainfall

Yue Zheng
PhD Candidate

Accurate prediction of high resolution (1-10 km) regional convection and rainfall is vital for a wide variety of meteorological applications. To improve the understanding and the model simulation of the regional convection and precipitation, we studied the impacts of (i) heterogeneous land surface, (ii) land-atmosphere surface coupling strength, and (iii) an improvement to the Kain-Fritsch (KF) convection parameterization scheme, using the Weather Research and Forecasting (WRF) model.

A number of numerical experiments were conducted over a variety of land-atmosphere coupling hotspot regions across the globe. Results indicate that replacing a simple slab land model with the more detailed land surface models (LSMs) (e.g., Noah and High-Resolution Land Data Assimilation System) can help improve the performance of surface layer and PBL processes over heterogeneous landscapes. Details in LSMs also aid the simulation of turbulent characteristics to land-surface heterogeneity as represented by LSMs coupled to WRF model. The adoption of a dynamic land–atmosphere coupling formulation helps improve the simulation of surface fluxes and resulting atmospheric state, leading to better precipitation intensity forecast. Additionally, the excessive precipitation noted in high-resolution model forecasts was greatly alleviated by introducing scale-aware parameterization of cloud dynamics in the KF scheme in the WRF model. Our results indicate that the improvements in land – surface representation, land atmosphere coupling, and convection parameterization triggers can together yield positive impacts on the model performance for short term rainfall predictions.

Tuesday, February 17, 2015
4:00 p.m.
Room 2201 HAMP

Refreshments at 3:30 pm
Room 2201/HAMP
2015 IndianaView Student Scholarships

**Amount**
Up to six $1000 scholarships will be awarded to six different students.

**Who Can Apply?**
Undergraduate or graduate students using remote sensing and/or other geospatial technologies in their research at any of the IndianaView educational institutions (see [http://www.indianaview.org/partners.html](http://www.indianaview.org/partners.html) for a list). Scholarship applicants must be sponsored by a faculty member from one of these educational institutions.

**What activities does the scholarship support?**
The purpose of the scholarship program is to promote student development in remote sensing and other geospatial technologies. IndianaView wishes to see a significant portion of the award used to support field work that complements a student’s research, travel to a professional meeting, data purchase, software purchase, minor equipment purchase, professional society membership, journal subscription, publication cost, and/or book purchase.

**Please include the following in your application (send via email):**

Resume – Your CV/Resume must include: a) your name, address, phone number, and e-mail address; b) educational background; c) work experience (if applicable); d) personal involvement with remote sensing and other geospatial technologies (through coursework, projects, work experience, or any other activity).

Essay – Please include a 1-page essay (double-spaced) that addresses your personal interest in remote sensing and/or other geospatial technologies and your plan (including time frame) for using the scholarship funds to promote your personal development in the field.

Letter of Recommendation – The faculty member who is sponsoring you should send a letter of recommendation in a separate email.

Submit the application documents via email to: biehl@purdue.edu.

All materials must be received by the end of the day on March 13, 2015. Valid applications will be considered by a review panel. Awards will be announced in late-March 2015. Students receiving awards are required to provide feedback about how the scholarship benefited their professional development and prepare a fact sheet about the project. Fact sheet templates will be provided. *Funds must be spent by Sep 30, 2015.*

For questions, contact Larry Biehl, IndianaView Coordinator, Young Hall, 155 South Grant Street, West Lafayette, IN, 47907-2108 (biehl@purdue.edu or 765 494-3529)

*These scholarships are possible through funding received by Purdue University from the U.S. Dept. of the Interior – U.S. Geological Survey - AmericaView under award AV13-IN01.*
IndianaView Background

The AmericaView Program
AmericaView (AV) is a nationwide partnership of remote sensing scientists who support applied remote sensing research, K-12 and higher STEM education, workforce development, and technology transfer.

Funded by a grant from the U.S. Geological Survey, the AmericaView consortium is comprised of university-led, state-based consortia working together to sustain a network of state and local remote sensing scientists, educators, analysts and technicians. AmericaView’s networks, facilities and capabilities are highly leveraged and used for sharing and applying public domain remote sensed data in a wide range of civilian applications, from formal and informal education, to ecosystem analysis and natural resources management, to disaster response. AmericaView’s primary goal is to support the many beneficial uses of remote sensing in service to society.

IndianaView Consortium
The overall purpose of IndianaView is to promote sharing and use of public domain remotely sensed data for education, research and outreach across universities, colleges, K-12 institutions and state and local governments for the state of Indiana.

The goals of the IndianaView consortium are:
1. Promote the use of remote sensing image data in the K-16 education. This will include making available appropriate data sets along with information that can be used for tutorials and training.

2. Facilitate the use of remote sensing data to monitor state-wide issues such as crop development, lake water quality and urban development.

3. Maintain an online portal to the remote sensing image data holdings and real-time data that the partner institutions have available as permitted by data purchase agreements. This is a distributed data base that has a web-based interface that allows users to access, preview and download the data and/or associated metadata.

IndianaView Student Scholarship Program
The IndianaView Student Scholarship Program provides an opportunity for participants at our member institutions to support the goals and objectives of IndianaView and AmericaView.
Welcome to a new spring semester, and thank you for supporting the Writing Lab.

We had a busy fall semester with over 3,254 visits for one-to-one consultations, in-Lab workshops, and ESL conversation groups. We look forward to working with Purdue writers again this spring, and we’re highlighting several new initiatives as part of the PLaCE program. You can find more information on page 2 of this newsletter or by visiting our website.

As always, our work is not limited to assisting English language learners and first-year composition students. Our trained consultants can provide support to all writers—including faculty and staff—across campus, regardless of document type, discipline, or skill level. We like to remind the campus that even the best writers can benefit from feedback.

If you have any questions about the Writing Lab or OWL, or if you’d like to offer any suggestions, please don’t hesitate to contact us.

Richard Johnson-Sheehan, Interim Director • rjohnso@purdue.edu
Tammy Conard-Salvo, Associate Director • tcsalvo@purdue.edu

**Featured FAQ**

**Thirty minutes is too short! Can students have more time?**

For most consultations, 30 minutes is sufficient to discuss the key issues—organization, argument, etc.—that affect the ideas and meaning of a document, but tutors may not necessarily go through every line. Students should then apply strategies from a session to the whole document when making revisions, and they are welcome to return for multiple sessions.

In rare situations, a consultant may determine that a student needs extra time and schedule a one-hour session for the future. If you feel a student needs extra time, please contact the Director or Associate Director.

More online at [owl.english.purdue.edu/writinglab/facultyfaq](http://owl.english.purdue.edu/writinglab/facultyfaq)

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**Main Location**

(765) 494-3723

for appointments and information

Limited drop-in slots available daily

Heavilon Hall
Room 226

Monday – Thursday
9:00 AM – 6:00 PM

Fridays
9:00 AM – 1:00 PM

**Satellite Locations**

Drop-in only
First come, first served

Humanities, Social Sciences, and Education (HSSE) Library
Mondays 6:00 – 9:00 PM

Latino Cultural Center (LCC)
Tuesdays 6:00 – 9:00 PM

Materials and Electrical Engineering (MSEE) Atrium
Wednesdays 6:00 – 9:00 PM

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Writing Lab services are FREE and available to all Purdue students, faculty, and staff.
One-on-One Tutorials
We offer free, thirty-minute tutorials on a scheduled or drop-in basis. Writers can bring any document to the Writing Lab, at any stage of the writing process. Sessions commonly help with the following:

- Clarification: understanding an assignment
- Invention: brainstorming, coming up with ideas, discovering a focus
- Organization: ordering ideas, building an argument
- Revision: revising for clarity and coherence

Our graduate tutors can assist students with a variety of writing tasks, including writing in the disciplines. Our business and professional writing consultants are specialists in employment writing, memos, personal statements, and reports. Our undergraduate teaching assistants help students taking first year composition courses (English 106 and 108). All of our tutors undergo rigorous training.

The student FAQs at http://owl.english.purdue.edu/writinglab/policies answer common questions about our tutorial sessions and offer tips on how best to prepare for sessions.

Students can call (765) 494-3723 or drop by Heavilon 226 to schedule an appointment. In addition, our satellite locations offer drop-in hours in the evenings at various locations. Please see http://owl.english.purdue.edu/writinglab for hours of operation and location information.

ESL Services
The Purdue Writing Lab offers a range of services to non-native speakers of English, covering writing and reading skills and conversational fluency:

- Tutorials for feedback on writing projects
- Self-study resources (books, CD-ROMs) for language skills practice
- Daily conversation groups (open to all non-native speakers enrolled at Purdue) for improving oral fluency

For more information on in-lab services for ESL learners, see http://owl.english.purdue.edu/writinglab/esl.

Writing Lab Workshops
Writing Lab workshops offer interactive presentations facilitated by experienced Writing Lab graduate tutors on writing matters that can be tailored to specific class projects. The Writing Lab offers both in-Lab and classroom workshops by instructor request, which cover topics like basic writing skills, research papers and documentation style, business writing documents, and using the Writing Lab and Purdue OWL.

You can learn more and request a workshop for your class at http://owl.english.purdue.edu/writinglab/classroomworkshops.

The schedule of in-Lab workshops can be found at https://owl.english.purdue.edu/writinglab/cscworkshops.

Purdue’s Online Writing Lab (OWL)
The Purdue OWL (http://owl.english.purdue.edu) offers a wide variety of handouts, presentations, online workshops and other electronic materials to the Purdue University community and to users around the globe. The Purdue OWL also posts updates on Writing Lab events and produces the Purdue OWL News (http://owl.english.purdue.edu/purdueowlnews). Instructors and students use the OWL to:

- Access regularly-updated handouts on writing process, basic writing, and document design
- Find resources for English as a Second Language students
- Email brief questions to the OWL Mail tutors: http://owl.english.purdue.edu/contact/owllmailtutors
- Download classroom-ready PowerPoint presentations on a number of writing topics
The Duke Energy Academy at Purdue, or DEAP, is an immersive program for high-achieving high school juniors and seniors, and secondary science teachers. During the week-long course on STEM-related energy topics, participants will be provided with resources and incentives to inspire both students and teachers in sustainable energy solutions.

**COUNSELOR CALLOUT**

Are you passionate about STEM? Do you enjoy sharing your passion and knowledge with younger students? Then join us at our callout to learn more about the Counselor position and how you can directly impact the youth of tomorrow!

**Learn more about:**
- Counselor responsibilities
- Time and training requirements
- DEAP activities and projects
- Application & interview process
- Compensation *(hint: $$ and food!)*

**TUESDAY, FEB. 10TH**
**5:30 PM**
**ARMS 1109**
**PIZZA & POP PROVIDED!**

“What is DEAP?”
The Duke Energy Academy at Purdue, or DEAP, is an immersive program for high-achieving high school juniors and seniors, and secondary science teachers. During the week-long course on STEM-related energy topics, participants will be provided with resources and incentives to inspire both students and teachers in sustainable energy solutions.

**QUESTIONS?**
Email us at: 
energyacademy@purdue.edu
Or visit our office in MANN 105

**GET SOCIAL WITH US!**
Facebook.com/TheEnergyAcademyAtPurdue
@energyacademyPU
#deap15
The Undergraduate Research and Poster Symposium is open to the public and showcases the research of undergraduate students. Participation in the Undergraduate Research & Poster Symposium earns recognition on your Purdue Co-Curricular Transcript.

Being a part of what makes Purdue excellent prepares you for future experiences where you will need to present and apply your work. Being directly involved in the process of discovery, along with the feedback from judges and other student participants during the symposium will prove invaluable in your efforts to present your work in the future.

Apply by March 13: Purdue.edu/research/ugrad

TUESDAY APRIL 14, 2015
Purdue Memorial Union North and South Ballrooms

Enter your research poster and win cash prizes!

The Undergraduate Research and Poster Symposium is open to the public and showcases the research of undergraduate students. Participation in the Undergraduate Research & Poster Symposium earns recognition on your Purdue Co-Curricular Transcript.