Dear ESIG Member:

We hope this letter finds you well. For more than a decade, the Education Special Interest Group (ESIG) has been sending newsletters to share news and events in the education world, and we thank you for your involvement. As the inaugural leaders of the AGU Education section, we thank you for your continued interest in education, education programs, and education research.

Our goals for the future of the new section are to partner with AGU Talent Pool programs in developing strong collaborations between AGU members and the broader Earth and space sciences community, to elevate the profile of research in the learning sciences. Together we will work to improve the education of the next generation of scientists and citizens.

With 2019 fast approaching, it’s now time to renew your AGU membership. We hope that you consider adding the Education section as one of your affiliations. As a member of the new Education section, you will be part of a growing transdisciplinary community of scientists, formal and informal educators, and students working in the revitalizing field of geoscience education research. In the future, information communicated in the ESIG newsletter will be available only to the closed Education section community on AGU Connect.

Fall Meeting 2018 is only 27 days away! We look forward to seeing you in Washington, D. C. As you plan your week, we encourage you to check out the many sessions, workshops, and events designed for educators at all stages in their career. In addition, we invite you to join us for our first annual Business Meeting and Reception at Fall Meeting, which will be held Tuesday, 11 December, from 6:30 to 8:00 p.m. at the Grand Hyatt Washington in Penn Quarter. You can register for this event when you register for Fall Meeting.

As always, if there are any updates you wish to share with the ESIG and Education community, please contact us. We will be happy to include your announcement in the December newsletter.

Best Regards,

Mark Moldwin
President, Education Section, AGU
Tanya Furman
President-elect, Education Section, AGU
Vincent Tong
Secretary, Education Section, AGU

News

1. There is still time to register for Fall Meeting!
Registration is still open for those attending Fall Meeting 2018 in Washington, D. C.
2. Ethics, response to harassment, and workplace climate events at Fall Meeting
At Fall Meeting, AGU will be hosting a variety of sessions, workshops, and events to provide attendees the knowledge to help transform workplace culture at scientific institutions.

3. Fall Meeting GIFT workshop schedule
The schedule for the 2018 Geophysical Information for Teachers (GIFT) workshop is now available. The 2-day workshop will include presentations from educators and scientists, workshops, and an optional field trip.

4. Mentoring at Fall Meeting
Participating in mentoring programs at Fall Meeting is now easier than ever with Mentoring365 Live. To sign up as a mentor or mentee, visit our new web platform.

5. Give to AGU during #GivingTuesday
As a kickoff to the holiday season, Giving Tuesday is an international opportunity to donate to the causes that you care about most. Next Tuesday, we encourage you to donate to AGU’s Education section to help grow our section.

Higher Education

1. Training scientists to become better mentors and leaders
Better training at the graduate level may be the key to training more effective academic mentors. In this new open-access paper, researchers at the University of Colorado Boulder identify the systemic gaps in science, technology, engineering, and mathematics (STEM) mentoring relationships and identify a model for improving mentorship.

2. Upcoming AGU/AGI Heads and Chairs webinar: Update on AGI’s Geoscience Student Exit Survey results
Join us for a webinar on Friday, 30 November 2018, 1:00–2:00 p.m. ET, in which staff from AGU and the American Geosciences Institute (AGI) will discuss the findings from the latest Geoscience Student Exit Survey.

3. AGU/AGI Heads and Chairs webinar: Making revisions to your course curriculum
Missed our webinar on helping faculty revise curriculum? You can watch a recording here. In this webinar, panelists from University of Texas at Austin, Louisiana State University, and University of South Florida provide helpful tips for faculty, showing how departments can use a matrix approach to assessing needs in their geoscience curriculums.

4. Using Context Diversity to help students thrive in the geosciences
In this past Science Education Resource Center (SERC) InTeGrate webinar, presenters Roberto Ibarra and Gary Weissman introduce the concept of Context Diversity, a useful framework examining the diverse ways in which people interact and learn. The webinar outlines techniques educators and administrative professionals can use to create more inclusive environments for an increasingly diverse geoscience community. To view a recording of this webinar, click here.

5. The next generation of college students
As college students evolve further away from the “traditional student” archetype, higher education must adapt to serve their changing needs. A recently released report from Inside Higher Ed, “The Next Generation of Students,” identifies emerging issues in higher education and provides some insight for how higher education can move forward. To view a recent webinar on this report, click here.

6. Engaging white faculty members in diversity and inclusion efforts
At many institutions, faculty members from underrepresented groups are often tasked with an unequal amount of service commitments in comparison with their white peers. Prof. Jessica Welburn Paige from the University of Iowa writes about how white faculty members can also be involved in improving the campus climate, in this Inside Higher Ed article.

7. Budgeting your time on the tenure track
The pressure to overwork is common for those on the path to tenure, and while that culture may not change anytime soon, there are a few ways you can be strategic with your time. This Inside Higher Ed article from Mayna Whitaker outlines some key tips for managing your time on the path to tenure.

8. Three tips for the minutes before class
The time before the beginning of class may not seem particularly important, but it can be a valuable opportunity to set the tone for the upcoming lesson. This video from the Chronicle of Higher Education shares three subtle suggestions for setting the environment in your class.

9. Using advanced stream tables to simulate geomorphic processes
Stream tables are an excellent way to model all kinds of geologic processes. Are you looking to take your stream process teaching to the next level? These videos from Little River Research & Design show detailed stream simulation models that you could show in a class, or try and replicate yourself.

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K–12

1. High school teaching—The new tenure-track job?
While many graduate students aspire to gain tenure-track positions, available jobs are few and far between. High school teaching positions are much more abundant, and opportunities for research are more plentiful than one would expect. In this recent Eos article, high school teacher Michael Richardson-Wing talks about his career in teaching and research as a high school teacher with a Ph.D.

2. Teaching Earth science with Minecraft?
An outreach program at Lancaster University is using Minecraft to teach children about creative thinking, problem solving, and Earth science. The program, called Science Hunters, uses the interactive video game to simulate anything from volcanoes, to oceans, to agriculture. Read more about it in this Eos article.

4. National Science Teachers Association STEM Forum and Expo
NSTA's next annual STEM Forum and Expo will be held in San Francisco, Calif., 24–26 July 2019. This event is an opportunity for STEM educators and exhibitors to share tools and resources to successfully implement STEM education in schools and the community. The deadline for session proposals is 3 December.

5. Registration is open for the NASA Human Exploration Rover Challenge
The NASA Human Exploration Rover Challenge tasks high school and college students around the world to create a vehicle designed to traverse the simulated surface of another world, traveling with a virtual 6-minute supply of oxygen. International registration is open until 13 December, and U.S. registration is open until 17 January.

6. Calculate your water usage
How much water do you use in a day? The answer is probably more than you think. This handy water usage calculator from the GRACE Communications Foundation calculates your water usage based on your lifestyle choices and provides tips for conserving water resources.

7. Incorporating the latest research in K–12 lesson plans
BiteScis is an organization that brings modern science research into the K–12 classroom by creating and sharing awesome and easy-to-use science lesson plans, developed through partnerships with K–12 educators and early-career STEM researchers. The science is cutting-edge, tied to curriculum standards, and freely available online. To learn more about lesson plans and partnerships, visit the BiteScis web page, or get in contact via email.

8. 2018 Outstanding Earth Science Teacher Award winners
The National Association for Geoscience Teachers (NAGT) has announced the 2018 Outstanding Earth Science Teacher Award winners. Awards are given to teachers who have made "exceptional contributions to the stimulation of interest in the Earth Sciences at the pre-college level." To learn more about the winners, or how to nominate a colleague for this award in 2019, click here.

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Students

1. Thinking about applying to grad school?
The deadlines for grad school applications are soon approaching—are you ready? This guide to the graduate school application process from the AGU blogosphere provides some helpful insights for scientists looking to advance their studies.

2. Harriet Evelyn Wallace Scholarship applications are open
Are you a female geoscientist entering or enrolled in a master’s or doctoral program? The Harriet Evelyn
Wallace Scholarship awards $5,000 for 1 year of graduate study, with the eligibility of receiving a second scholarship of $5,000. Applications for this scholarship close 4 January 2019.

3. American Geosciences Institute’s Career Compass series
Students often seek information from faculty, alumni, and peers when making decisions about their careers, but this information can be limiting in its scope and sector. The American Geosciences Institute presents its Career Compass series, providing options, tips, suggestions, and strategies for how students can obtain critical skills, experiences, and competencies to launch their geoscience career. These succinct one-pagers highlight the pathways, necessary skills, and available opportunities for a growing range of careers.

4. 2016 trends in graduate and postdoc geoscience diversity
According to AGI’s recent analysis of the National Science Foundation’s annual survey of Graduate Students and Postdoctorates in Science and Engineering, diversities issues in the geosciences are representative of a STEM-wide trend, but on a larger scale. For example, 20% of science graduate students were from underrepresented populations, whereas only 12% of graduate students in the geosciences were from underrepresented groups. To view the report, click here.

5. Challenges for female Ph.D. students in male-dominated cohorts
According to a recent study of Ph.D. students in STEM programs, women in cohorts dominated by men are less likely to graduate. Researchers suggest that subtle harassment at the systemic level contributes to this gap. This Science article tells of the challenges of female Ph.D. students in STEM fields and how institutions are working to change their campus climates.

6. Career tips for first-gen grad students
Finding your career path after graduate school can be daunting when you come from a family in which your parents did not graduate from college and are not in professional roles. Helen Pho from the University of Pennsylvania offers some advice for how first-generation graduate students can level the playing field in their career search, in this Inside Higher Ed article.

7. Resume tips for Ph.D. students
Searching for a nonfaculty job as a Ph.D. student may seem like a daunting task. This Inside Higher Ed article provides advice for marketing your academic experiences to a wider audience.

8. When your Ph.D. is not going “as planned”
For most students, a Ph.D. rarely goes exactly as planned. You find new interests, make new career goals, and find new directions in life. In this Chronicle of Higher Education blog post, authors Jennifer Furlong and Julie Miller Vick offer some advice for students who worry that their progress isn’t matching their expectations.

9. Haiku your research!
Can you express your research in 17 syllables? In anticipation of Fall Meeting 2018, AGU’s Hydrology Student Subcommittee has challenged attendees to summarize their abstract in a haiku on Twitter, with the most popular tweet earning a prize at the meeting. While the contest has closed you can still check out these fantastic haikus that our members have posted.

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