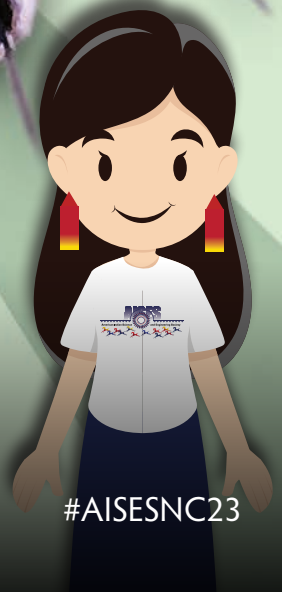


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PROGRAM

2023 AISES NATIONAL CONFERENCE ✦ SPOKANE, WASHINGTON



Conference Agenda

#AISESNC23



All events are in the Spokane Convention Center unless noted after the room number or name.

Although all sessions fall within a specific track, track designations are only a suggestion! We encourage you to read through the program, especially the session descriptions, and attend ANY session suited to your interests. There are many sessions to choose from, so plan carefully, be strategic, and most importantly engage with your fellow conference attendees and presenters.

Full descriptions of the sessions and events begin on page [40](#) of this program or at <https://conference.aises.org/agenda>

Check the online agenda and mobile app for the most up to date information.

Start End	Session/Event Name	Session Location	Session Tracks
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Wednesday, October 18

9:00 am 6:00 pm	AISES Merchandise Booth	Riverside Lobby - Outside Exhibit Halls	
9:00 am 6:00 pm	Conference Check-in and Registration	Riverside Lobby - Outside Exhibit Halls	
9:00 am 6:00 pm	Volunteers Check-in Desk	Riverside Lobby - Outside Exhibit Halls	
12:00 pm 4:00 pm	STEM Activities Day	Ballroom 300ABCD	
4:30 pm 6:00 pm	Pre-College Student Gathering	Ballroom 100C	
6:00 pm 8:00 pm	Kick-off Event - AISES & IBM Welcomes All Attendees	Ballroom 100B	

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
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Thursday, October 19

7:00 am 5:00 pm	AISES Merchandise Booth	Riverside Lobby - Outside Exhibit Halls	
7:00 am 5:00 pm	Conference Check-in and Registration	Riverside Lobby - Outside Exhibit Halls	
7:00 am 5:00 pm	Volunteers Check-in Desk	Riverside Lobby - Outside Exhibit Halls	
7:00 am 9:00 pm	Student Study Lounge	102AB	
8:30 am 10:45 am	Opening Ceremony	Grand Ballroom - Davenport Grand Hotel	
8:30 am 5:30 pm	Native Artisan Marketplace	Ballroom Lobby	
11:00 am 11:30 am	State of AISES by President (Invitation only)	Conference Theater	
11:00 am 11:50 am	Academic Institution Advisory Council Meeting	402A	
11:00 am 11:50 am	AI Opportunities and Dangers: Indigenous Data Sovereignty, Traditional Knowledge Stewardship, and Cultural Integrity	401B	Indigenous Knowledge
11:00 am 11:50 am	An Overview and Impact of Wells Fargo's Native People Employee Resource Network	303AB	Professional & Workforce Development
11:00 am 11:50 am	Data Science Career Networking and Panel Workshop (ORAU/NLM)	Ballroom 111C	Health & Medical Sciences
11:00 am 11:50 am	Incorporating Indigenous History and Knowledge in the Mining Engineering Curriculum	401A	Engineering
11:00 am 11:50 am	Mapping out your Success	Ballroom 111B	College & Career Readiness
11:00 am 12:00 pm	Student Orientation	Ballroom 111A	
11:00 am 12:15 pm	Tribal Nations Advisory Council Meeting (TNAC)	302AB	
11:00 am 12:40 pm	Learn & Apply to NASA's Opportunities in Real Time!	401C	Professional & Workforce Development
11:00 am 5:00 pm	Elder's Lounge - One on One	101	

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
11:00 am 6:00 pm	Resume Room	402BC	
11:15 am 12:05 pm	Resilience Strategies to Stay on the Path to Becoming a Physician	Grand Ballroom - Davenport Grand Hotel	Health & Medical Sciences
12:30 pm 1:20 pm	From Sci-Fi to Reality: How Places Like JPL Make it Happen!	Grand Ballroom - Davenport Grand Hotel	Engineering
12:30 pm 1:30 pm	TNAC & CAC Luncheon Mixer (Invitation only)	Ballroom 100C	
12:30 pm 4:30 pm	Gonzaga University Tour	Southside of Spokane Convention Center in the turnout near breezeway	
1:00 pm 2:40 pm	Building Community Through Beading	401C	Community Building
1:00 pm 2:40 pm	Exploring the Evidence	401A	Mathematical and Physical Sciences
1:00 pm 2:40 pm	What is an environmental science career? And how can Science Societies help you get there?	302AB	Biological Sciences
1:30 pm 4:30 pm	University of Washington Tour	Southside of Spokane Convention Center in the turnout near breezeway	
1:30 pm 4:45 pm	Amazon Fulfillment Center - GEG1 Tour	Southside of Spokane Convention Center in the turnout near breezeway	
1:30 pm 5:30 pm	Eastern Washington University Campus Tour	Southside of Spokane Convention Center in the turnout near breezeway	
1:30 pm 6:00 pm	Albeni Falls Dam Tour	Southside of Spokane Convention Center in the turnout near breezeway	
1:45 pm 3:00 pm	Corporate Advisory Council Meeting (CAC)	Conference Theater	
1:45 pm 3:00 pm	Government Relations Council Meeting (GRC)	401B	
2:00 pm 2:50 pm	Decoding the Top 200 Colleges Listings	Ballroom 111C	Education and Student Success
2:00 pm 2:50 pm	Demystifying the Pharmaceutical Industry – Internship and Job opportunities	303AB	Health & Medical Sciences
2:00 pm 2:50 pm	Indigenous Lands Representation in Apple Maps	Grand Ballroom - Davenport Grand Hotel	Computer and Information Science Engineering

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
2:00 pm 2:50 pm	STEM and Leadership Careers in the Forest Service	Ballroom 111B	Professional & Workforce Development
3:00 pm 3:50 pm	Artificial Intelligence in Payments	303AB	Computer and Information Science Engineering
3:00 pm 3:50 pm	College Counseling Considerations for Native American High School Students	302AB	College & Career Readiness
3:00 pm 3:50 pm	Innovation and Intellectual Property	401C	STEM & Business
3:00 pm 3:50 pm	Leading with Indigeneity	Ballroom 111B	College & Career Readiness
3:00 pm 3:50 pm	The Value of Mentorship Relationships - The AISES Full Circle Mentorship Program.	Ballroom 111C	College & Career Readiness
3:00 pm 3:50 pm	We R Native: Multimedia Resources for Native Youth, By Native Youth	Ballroom 111A	Health & Medical Sciences
3:00 pm 4:30 pm	LGBTQIA2S+ Talking Circle	Ballroom 300AB	
3:00 pm 4:30 pm	Men's Talking Circle	Ballroom 300CD	
3:00 pm 4:30 pm	Women's Talking Circle	Ballroom 100A	
3:15 pm 4:15 pm	Academic Advisory Council Meeting (AAC)	401B	
3:15 pm 4:15 pm	Professional Chapter Council Meeting (PCC)	401A	
3:30 pm 4:30 pm	Building Equitable & Inclusive Workspaces Across Federal Agencies: The Value of Diversity, Equity, & Inclusion Beyond Hiring	Grand Ballroom - Davenport Grand Hotel	Professional & Workforce Development
4:00 pm 4:50 pm	Acing the Interview	Ballroom 111B	College & Career Readiness
4:00 pm 4:50 pm	Chart Your Course: Pursuing Employment Opportunities U.S. Coast Guard	402A	Professional & Workforce Development
4:00 pm 4:50 pm	How to Net-WORK It!	Ballroom 111C	College & Career Readiness
4:00 pm 4:50 pm	Investing in Communities, Inspiring Change	Conference Theater	Community Building
4:00 pm 4:50 pm	Re-evaluating How To Study with Active Learning Strategies	302AB	College & Career Readiness

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Start End	Session/Event Name	Session Location	Session Tracks
4:00 pm 4:50 pm	Skill setting in the Next Digital Age	303AB	Professional & Workforce Development
4:00 pm 5:30 pm	Indigenous knowledge: Stickgames	Ballroom 100B	Art, Architecture, and Design
4:00 pm 5:30 pm	Recreate an Indigenous Engineering Design Process through Fun Engineering Activities with Youth	401C	Engineering
4:30 pm 9:30 pm	Student Hackathon with Dinner	Cedar Ballroom - Davenport Grand Hotel	
5:00 pm 6:00 pm	Veterans' Gathering	302AB	
5:00 pm 7:00 pm	Native Food, Energy, Water Systems Networking Reception	West Bridge (outside 207)	
5:00 pm 7:00 pm	Networking Suites	Multiple Locations	
6:00 pm 7:00 pm	Judges Orientation for Research Presentations	Conference Theater	
7:30 pm 9:00 pm	Gemstone Reception (Invitation only)	Grand Ballroom - Davenport Grand Hotel	
7:30 pm 9:00 pm	Graduate Student Mixer	Ballroom 100A	

Friday, October 20

7:00 am 8:00 am	Morning Blessing Ceremony with the AISES Elders	Grand Ballroom A - Davenport Grand Hotel	
7:00 am 5:00 pm	AISES Merchandise Booth	Riverside Lobby - Outside Exhibit Halls	
7:00 am 5:00 pm	Conference Check-in and Registration	Riverside Lobby - Outside Exhibit Halls	
7:00 am 5:00 pm	Volunteers Check-in Desk	Riverside Lobby - Outside Exhibit Halls	
7:00 am 9:00 pm	Student Study Lounge	102AB	
7:00 am 9:00 am	Wellness Activity - FBI: Flexibility/Balance/Inspiration	Ballroom 100C	
7:30 am 5:00 pm	Resume Room	402BC	

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
8:00 am 9:00 am	Poster Research Presentations Setup	Riverside Lobby - Outside Exhibit Halls	
8:30 am 9:20 am	Biosciences at Berkeley Lab - To Sustainability and Beyond	Ballroom 111C	Biological Sciences
8:30 am 9:20 am	Getting to know AISES and a guide to Chapter Success	Conference Theater	College & Career Readiness
8:30 am 9:20 am	Renewable Energy is Our Superpower	Ballroom 111B	Engineering
8:30 am 9:20 am	The Future of AI and Indigenous People	Ballroom 111A	Computer and Information Science Engineering
8:30 am 9:50 am	Maximize Your Impact as a Science Advocate	303AB	Professional & Workforce Development
8:30 am 5:30 pm	Native Artisan Marketplace	Ballroom Lobby	
9:00 am 9:15 am	College and Career Fair Ribbon Cutting Ceremony	Riverside Lobby - Outside Exhibit Halls	
9:00 am 10:30 am	Coffee & Tea Break sponsored by American Institute of Aeronautics and Astronautics	Exhibit Hall	
9:00 am 12:00 pm	Poster Research Presentations	Riverside Lobby - Outside Exhibit Halls	
9:00 am 4:00 pm	College and Career Fair Exhibitor Booths & Interview Booth #s 1 - 36	Exhibit Hall	
9:00 am 4:00 pm	College and Career Fair Interview Booth #s 37 - 96	Ballroom 300ABCD	
9:30 am 10:20 am	Dam Removal on the Klamath River	Ballroom 111C	Engineering
9:30 am 10:20 am	Native Academic Leadership in STEM	Ballroom 111B	Education and Student Success
9:30 am 10:20 am	Understanding Bias and Applying an Equity Lens to Data Collection and Analysis	Ballroom 111A	Health & Medical Sciences
9:30 am 11:30 am	Chapter Advisors Meeting	302AB	
10:00 am 5:00 pm	Elder's Lounge - One on One	101	
10:30 am 11:20 am	Circular Economy Engineering: Fostering Sustainable Solutions for a Resilient Future	303AB	Engineering

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
10:30 am 11:20 am	How to be a Good Ally	Ballroom 111A	Social & Behavioral Sciences
10:30 am 11:20 am	Landing a Federal Job: USAJOBS, Application Tips, and more	Ballroom 111C	College & Career Readiness
10:30 am 11:20 am	Storytelling with Gore Medical	Ballroom 111B	Health & Medical Sciences
12:00 pm 1:15 pm	College and Career Fair Lunch	Exhibit Hall	
12:00 pm 8:00 pm	Xbox Microsoft Play Room	Cedar Ballroom - Davenport Grand Hotel	Engineering, Computer and Information Science Engineering
1:00 pm 1:50 pm	Equity-Centered Design: How the federal government centered Native voices in improving public services	Conference Theater	Indigenous Knowledge
1:00 pm 1:50 pm	FIRST STEPS: A Resource for Engaging with Indigenous Communities in STEM	303AB	Community Building
1:00 pm 1:50 pm	Indigenous Gaming Tribes	Ballroom 111B	STEM & Business
1:00 pm 1:50 pm	Indigenous Participation in STEM/STEAM begins with Belonging: Gathering of ideas through Sharing Circles and Connections	Ballroom 111A	Community Building
1:00 pm 1:50 pm	Navigating the Data Jungle: Best Practices for Governance	Ballroom 111C	Computer and Information Science Engineering
1:00 pm 1:50 pm	What do Hydrologic Technicians do at USGS?	302AB	Geosciences
2:00 pm 2:50 pm	'Aha No'ono'o Pono: A ritual in creating gracious critical dialogue to discuss Indigenous STEM for and beyond the 21st Century	Ballroom 111B	Indigenous Knowledge
2:00 pm 2:50 pm	Face Risk Head On As an Actuary: A Career that Merges Math and Business	Conference Theater	STEM & Business
2:00 pm 2:50 pm	Harnessing Tribal Expertise for Sustainable Management of the Columbia River Basin System: Enhancing Salmon and Lamprey Passage	302AB	Biological Sciences
2:00 pm 2:50 pm	Not Conflict Management but Building Success	Ballroom 111C	Professional & Workforce Development
2:00 pm 2:50 pm	Pitching your Innovation	303AB	STEM & Business
2:00 pm 2:50 pm	Resonating Challenges and Strategies in Approaching DEI spaces in Higher Education	Ballroom 111A	Education and Student Success

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
3:00 pm 3:50 pm	Cultivating Lifelong Stewardship: Empowering Indigenous Students from K to Grey in NOAA's Educational Initiatives	Ballroom 111B	Education and Student Success
3:00 pm 3:50 pm	Native FEWS Student Success: Reflections of the Native American Student Experience in the Nexus of Food, Energy, and Water Systems	Conference Theater	Education and Student Success
3:00 pm 3:50 pm	Pursuing Careers in Indigenous Design; How Tribal Cultures Can Impact Work in the A/E/C Industry	302AB	Art, Architecture, and Design
3:00 pm 4:50 pm	Storytelling with The Elders	Ballroom 111A	Indigenous Knowledge
4:00 pm 4:50 pm	Entrepreneurship Panel	Conference Theater	STEM & Business
4:00 pm 4:50 pm	Increasing Native American representation in the oral health professional workforce and improving the oral health of our communities	Ballroom 111C	Health & Medical Sciences
4:00 pm 4:50 pm	Opportunities with AISES for K-12!	302AB	Education and Student Success
4:00 pm 4:50 pm	Reconnecting with Our Tribal Communities After College – Challenges & Rewards	Ballroom 111B	Professional & Workforce Development
5:00 pm 6:30 pm	College Student Regional Networking	Multiple Locations See mobile app for room numbers	
5:30 pm 7:00 pm	Rematriation: Indigenous Womxn in STEM Employer & Professional Networking Reception	303AB	
6:30 pm 8:30 pm	Professional Networking Reception (Ticket purchase required)	Ballroom 100A	
7:30 pm 9:00 pm	President's Reception (Invitation only)	Ballroom 100C	
8:00 pm 10:30 pm	Student Social - DJ and Dance	Ballroom 100B	



Conference Agenda

#AISESNC23

Start End	Session/Event Name	Session Location	Session Tracks
Saturday, October 21			
6:30 am 9:15 am	Sequoyah Fellows Breakfast & Ceremony (RSVP required)	Grand Ballroom AB - Davenport Grand Hotel	
7:00 am 12:00 pm	Conference Check-in and Registration	Riverside Lobby - Outside Exhibit Halls	
7:00 am 3:00 pm	Student Study Lounge	102AB	
7:00 am 3:00 pm	Volunteers Check-in Desk	Riverside Lobby - Outside Exhibit Halls	
9:30 am 10:20 am	Hacking the Borg – Driving global change from within the system	Conference Theater	Art, Architecture, and Design
9:30 am 10:20 am	Imagine working for the US Army Corps of Engineers – finding your people and a career	402A	Professional & Workforce Development
9:30 am 10:20 am	Indigenous Representation in the Navy: – Honoring Warriors at Sea & STEM Opportunities	401C	STEM & Business
9:30 am 10:20 am	Networking and professional career choices in the CIA	303AB	Professional & Workforce Development
9:30 am 10:20 am	Preparing for a Career the Health Professions: Why Applying to SHPEP Should Be Your First Step	401B	Health & Medical Sciences
9:30 am 10:20 am	Radical Funding Solutions for Indigenous Women in Tech	Ballroom 111C	Education and Student Success
9:30 am 10:20 am	The Positives of Failure; How Failing Can Lead to Success	Ballroom 111B	College & Career Readiness
9:30 am 10:20 am	Tribal Brownfields: Tools, Opportunities, and Case Studies	302AB	Engineering
9:30 am 10:30 am	How Are We Feeding the Massive Technology Appetite in the Gaming Vertical?	Ballroom 111A	Computer and Information Science Engineering
10:00 am 4:00 pm	AISES Merchandise Booth	Riverside Lobby - Outside Exhibit Halls	
10:00 am 5:00 pm	Elder's Lounge - One on One	101	
10:00 am 5:30 pm	Native Artisan Marketplace	Ballroom Lobby	
10:30 am 11:20 am	Blood Quantum	Ballroom 111C	Indigenous Knowledge

Conference Agenda

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Start End	Session/Event Name	Session Location	Session Tracks
10:30 am 11:20 am	Career Pathways: Management vs Technical Fellow	Conference Theater	College & Career Readiness
10:30 am 11:20 am	Getting American Indian and Alaska Natives Students into and successfully through Medical School	302AB	Health & Medical Sciences
10:30 am 11:20 am	Knowledge Transfer: Wisdom and Guidance for Management Success	Ballroom 111B	Professional & Workforce Development
10:30 am 11:20 am	National Assessment of Tribal Forests and Forest Management in the US	303AB	Biological Sciences
10:30 am 11:20 am	Rising Waters: Assessing Flooding Impact on Communities through Remote Sensing	402A	Geosciences
10:30 am 11:20 am	STEM Opportunities at the U.S. Department of State	401B	STEM & Business
10:30 am 11:20 am	U.S. Department of Energy: The American Indigenous Experience	401C	Professional & Workforce Development
10:45 am 11:35 am	The Art of Storytelling	Ballroom 111A	Communications and Marketing Branding
11:45 am 1:15 pm	Student Awards Luncheon (Registration required. Limited to 500 students)	Grand Ballroom AB - Davenport Grand Hotel	
1:30 pm 2:20 pm	Building Broadband Access	401B	Computer and Information Science Engineering
1:30 pm 2:20 pm	Canadian Members Meeting	Conference Theater	
1:30 pm 2:20 pm	Empowering Indigenous Futures: AISES Scholarship and Internship Opportunities	303AB	Education and Student Success
1:30 pm 2:20 pm	Growth & Comfort Do Not Coexist	Ballroom 111A	Computer and Information Science Engineering
1:30 pm 2:20 pm	Intersectionality in STEM: Our lived experiences, barriers to belonging, ideas for acknowledgment and acceptance, and ways to thrive and persist through shared knowledge and building community	Ballroom 111C	Professional & Workforce Development
1:30 pm 2:20 pm	Intro to AI: Learn how to use LLMs	401A	Engineering
1:30 pm 2:20 pm	National Laboratory Technical Contributions to Tribal Communities	401C	Community Building
1:30 pm 2:20 pm	STEM@NSA	402A	Professional & Workforce Development

Conference Agenda

#AISESNC23

Start End	Session/Event Name	Session Location	Session Tracks
1:30 pm 2:20 pm	Still Here - Still Serving: Honoring Indigenous Culture in Today's Intelligence Community Landscape	302AB	College & Career Readiness
1:30 pm 2:20 pm	Support Food Systems and Improve the Environment with a Career at the Natural Resources Conservation Service	Ballroom 111B	Biological Sciences
1:30 pm 2:20 pm	U.S. National College Student Caucus	Ballroom 111A	
2:30 pm 3:20 pm	AISES Members Meeting	Ballroom 111A	
2:30 pm 3:20 pm	Expanding AISES Communities in Biological Societies	401C	Biological Sciences
2:30 pm 3:20 pm	Fighting Fire with Fire: Can Traditional American Indians burning practices help reduce devastating wildfires	402A	Indigenous Knowledge
2:30 pm 3:20 pm	Healthcare Facility Engineering - Are you ready for a real challenge?	303AB	Engineering
2:30 pm 3:20 pm	Indigenous Space Force Guardians and Air Force Airmen Stories of Success	Conference Theater	College & Career Readiness
2:30 pm 3:20 pm	Indigetizing at Amazon	401A	Professional & Workforce Development
2:30 pm 3:20 pm	On the path to leadership	302AB	College & Career Readiness
2:30 pm 3:20 pm	Public Speaking for STEM Professionals	Ballroom 111C	Professional & Workforce Development
2:30 pm 3:20 pm	Telling Indigenous Stories through Video Games	Ballroom 111B	Computer and Information Science Engineering
3:00 pm 5:00 pm	Closing Talking Circle (All Welcome)	Ballroom 100A	
6:00 pm 8:30 pm	Closing Banquet	Exhibit Hall C	
9:00 pm 11:30 pm	Traditional Native Social Powwow	Exhibit Hall A	



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**October 19-21, 2023
Spokane, WA**



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Research Agenda

#AISESNC23



All events are in the Spokane Convention Center unless noted after the room number or name.

Full descriptions of the oral research presentations and presenter biographies can be found online at <https://conference.aises.org/agenda>

Check the online agenda and mobile app for the most up to date information.



Start	End	Research Title	Location	Research Tracks
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Friday, October 20

9:30 am	9:50 am	Thermoregulation alters adipose influence of pancreatic cancer growth	401A	Research: Life Sciences
9:30 am	9:50 am	A Novel Educational Partnership between a Tribal and Non-Tribal Universities	401B	Research: Engineering
9:30 am	9:50 am	Evaluating the Efficacy of a Flood Attribution Scheme in Identifying Convective Event-Driven Flooding within an Isolated Mountain Range	401C	Research: Geosciences
9:30 am	9:50 am	Can ChatGPT Help Translate and Preserve Indigenous Languages?	402A	Research: Computer Science
10:00 am	10:20 am	Advancement of Rural Communities: A Southeastern US Example	401A	Research: Geosciences
10:00 am	10:20 am	Macroinvertebrate Diversity and the Effect of Fish in Farm Ponds on the Osage Nation Ranch	401B	Research: Life Sciences
10:00 am	10:20 am	Recognizing the multi-dimensional impacts of settler colonialism and environmental injustice on Indigenous foodways	401C	Research: Life Sciences
10:00 am	10:20 am	Assessing the Cardiovascular Care of Indigenous Patients	402A	Research: Health Sciences
10:30 am	10:50 am	Unearthing Lunar Soil Potential: Exploring Regolith Transformation and Plant Adaptation for Sustainable Off-World Agriculture	401A	Research: Engineering
10:30 am	10:50 am	Quantified effect of taconite and precious metal mining on wild rice watersheds of eastern Minnesota	401B	Research: Life Sciences
10:30 am	10:50 am	Culturally Relevant Methodologies in Statistical Research - Bush Statistics with Bayes	401C	Research: Mathematics
10:30 am	10:50 am	Diné Undergraduate Engineering Students' Perspectives on Engineering in the Context of Diné Culture	402A	Research: STEM Education
11:00 am	11:20 am	Cancer prevention by caffeine: Another reason to love coffee	401A	Research: Health Sciences

Research Agenda

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Start End	Research Title	Location	Research Tracks
11:00 am 11:20 am	Guardians of the Living Water: Promoting Youth Interest in STEM through Water Quality Research in Our Community	401B	Research: STEM Education
11:00 am 11:20 am	Supporting Tribal and Indigenous Food Sovereignty	401C	Research: Life Sciences
11:00 am 11:20 am	A Review of Welcoming Totem Poles Located in Sea and Airports in Major American and Canadian Pacific Northwest Port Cities	402A	Research: Other
1:00 pm 1:20 pm	Epoxy-based covalent adaptable networks from functional siloxane monomers	401A	Research: Other
1:00 pm 1:20 pm	Biological Sciences / Trails to Research: Intensive Research-Based Courses for Students at Tribal Colleges	401B	Research: Life Sciences
1:00 pm 1:20 pm	Utilizing the MS2 Virus-Like Particle as a Candidate for a New Human Papillomavirus Vaccine	401C	Research: Physical Sciences
1:00 pm 1:20 pm	Infection Affects Behaviour: T.gondii infection and the nesting behaviour of glaucous-winged gulls	402A	Research: Life Sciences
1:30 pm 1:50 pm	Electricity Use Analysis of Solar-Powered Homes on the Navajo Nation	401A	Research: Engineering
1:30 pm 1:50 pm	Across Space and Time: The Impacts of Culturally Revitalizing Indigenous Knowledge Virtual Reality Curriculum	401B	Research: STEM Education
1:30 pm 1:50 pm	Measuring measurement: Clearing the air on smoking prevalence in American Indian/Alaska Native populations	401C	Research: Psychology
1:30 pm 1:50 pm	Exploring the Relationship of Fecal Cortisol Metabolites to Wyoming Ground Squirrel Pups Using Traditional Ecological Knowledge	402A	Research: Life Sciences
2:00 pm 2:20 pm	Universal antimicrobial applications of silver nanoclusters	401A	Research: Life Sciences
2:00 pm 2:20 pm	Ephaptic Extracellular Coupling in a Multicellular System through Electrodiffusion	401B	Research: Engineering
2:00 pm 2:20 pm	Deep root removal and regeneration changes the structure of deep soils in the Anthropocene	401C	Research: Life Sciences
2:00 pm 2:20 pm	Optimization of Peptide-Encoded mRNA Delivery via Lipid Nanoparticles for Targeted Cardiac Therapeutics	402A	Research: Life Sciences
2:30 pm 2:50 pm	Wayfinding in STEM: Lessons from Native American Near Peer Mentors	401A	Research: STEM Education
2:30 pm 2:50 pm	Coalescing Tradition with Plant Biochemistry: Reconstructing Plant Biosynthetic Pathways in Yeast	401B	Research: Life Sciences

Research Agenda

#AISESNC23

Start End	Research Title	Location	Research Tracks
2:30 pm 2:50 pm	Design to Data: Putting Biochemistry Research into Undergraduate Classrooms Across the US to Train the Next Generation of Protein Scientists	401C	Research: STEM Education
2:30 pm 2:50 pm	Elucidating NFATc1 Protein Expression in Zebrafish Heart: Implications for Atrial Fibrillation Susceptibility	402A	Research: Health Sciences
3:00 pm 3:20 pm	Geologic diversity drives morphological diversity in the Mountainsnails	401A	Research: Life Sciences
3:00 pm 3:20 pm	Dispossession of Ancestral Land: Effect of Displacement on Indigenous Peoples' Life Satisfaction	401B	Research: Psychology
3:00 pm 3:20 pm	Battles Between US and Tribal Jurisdiction: The Fight for Tribal Sovereignty	401C	Research: Other
3:30 pm 3:50 pm	Leveraging Tribal Self-Governance for Enhanced Food Security: Utilizing the Indigenous Standpoint Theory to Conduct a Mixed-Methods Program Evaluation of FDPIR 638	401A	Leveraging Tribal Self-Governance
3:30 pm 3:50 pm	Communicating a Global Scientific Issue Using a Traditional and Multimodal Approach: Impacts on Language Pre- and Post-Colonization	401B	Research: STEM Education
3:30 pm 3:50 pm	Impacts of Dispossession on Indigenous Food Systems that Benefitted Land Grant Universities	401C	Research: Engineering
3:30 pm 3:50 pm	Rethinking Wellness: Bringing Traditional Practices into Urban Spaces for Indigenous Youth	402A	Research: Health Sciences
4:00 pm 4:20 pm	Targeting the unfolded protein response enhances sensitivity to chemotherapy	401A	Research: Life Sciences
4:00 pm 4:20 pm	Geochemical, Radiation, and VNIR Spectra Correlation of Rock Samples from Crownpoint, NM	402A	Research: Engineering
4:30 pm 4:50 pm	Automated Image Analysis for Pericyte and Endothelial Cell Quantification in Diabetic Retinopathy	401A	Research: Life Sciences
4:30 pm 4:50 pm	The Cosmos as a Uniting Pillar of Relationships: A Diné & Hózhó Perspective	401B	Research: Engineering
4:30 pm 4:50 pm	NASA Sustainable Aviation	401C	Research: Engineering
4:30 pm 4:50 pm	Cultural Heritage Science: Authentication of Native American Artwork via Materials Characterization and Forensic Analysis	402A	Research: Other

Session Descriptions

#AISESNC23

Although all sessions fall within a specific track, track designations are only a suggestion! We encourage you to read through the program, especially the session descriptions, and attend ANY session suited to your interests. There are many sessions to choose from, so plan carefully, be strategic, and most importantly engage with your fellow conference attendees and presenters.

All presenter biographies are listed at <https://conference.aises.org/agenda/presenters>

Academic Advisory Council Meeting (AAC)

The Academic Advisory Council (AAC) provides advice and guidance to AISES regarding academic matters such as grant proposal writing, educational and research project design, faculty careers, college admissions and financial aid, postgraduate study and fellowship opportunities, research opportunities, and other higher education opportunities.

If you are interested in joining the AAC, contact Dr. Kathy DeerInWater, Vice President of Programs and Research at kdeerinwater@aises.org.

The Council engages in issues including, but not limited to:

- Providing recommendations concerning the scientific and technical merit of grant proposals and projects.
- Providing recommendations concerning protections for human subjects and other areas as applicable for grant proposals or projects.
- Making recommendations concerning appropriateness of budget requests for grant proposals and projects.
- Providing mentorship to AISES student members who are interested in pursuing a career in Academia.
- Supporting AISES activities and chapters at ACC members' colleges and universities.
- Alerting AISES to potential grant funding and institutional partnership opportunities.

Acing the Interview

COLLEGE & CAREER READINESS

Katelin Bigelow

Systems Engineer

Merck

Acing the interview will help students and professionals better prepare and perform in job, internships, or co-op interviews. We'll discuss the interview path, tips on how to stand out, and an in-depth look at the STAR Method for answering interview questions.

'Aha No'ono'o Pono: A ritual in creating gracious critical dialogue to discuss Indigenous STEM for and beyond the 21st Century

INDIGENOUS KNOWLEDGE

Dr. Michael Charles (*Dine / Navajo*)

Assistant Professor
Cornell University

Dr. Lelemia Irvine (*Native Hawaiian*)

Assistant Professor of Physics
University of Hawai'i- West O'ahu

Who is academia? How do we ensure that Indigenous Knowledge STEM Systems continue to grow and evolve by Indigenous people for Indigenous people? How do we ensure that Indigenous STEM practitioners/scholars are able to create and present knowledge

in ways that honor our teachers, communities, and practice? We unfurl our mats as Indigenous STEM scholars and invite all, and most especially Indigenous STEM scholars, in a ritual to discuss the obstacles and successes that they have found in practicing Indigenous STEM. 'Aha No'ono'o Pono means "A Ritual for Gracious Critical Dialogue". It is a contemporary Hawaiian practice, an open ritual rooted in generational 'ike kūpuna (ancestral wisdom). Participating in ritual, as a community lets us dream and actualize an academic future for and beyond the 21st Century that celebrates and embraces our respective Indigenous STEM knowledge systems. In this conversation, we will elevate each other's spirits as Indigenous scholars.

AI Opportunities and Dangers: Indigenous Data Sovereignty, Traditional Knowledge Stewardship, and Cultural Integrity

INDIGENOUS KNOWLEDGE

Tracy Monteith (*Eastern Band Cherokee*)

Senior Software Engineer
Microsoft Corporation

Makalika Naholowa'a (*Native Hawaiian*)

Executive Director & Attorney
Native Hawaiian Legal Corporation

From language revitalization to environmental stewardship, AI holds incredible promise for increasing capacity and assisting in solving important problems in resource-constrained tribal communities. At the same time, indigenous people have a myriad of concerns that must be addressed, or AI will cause more harm than good. Equitable access, biased decision-making, traditional knowledge extraction and exploitation, native data governance, and cultural appropriation are some of the concerns. Learn about multidisciplinary, native-led efforts to develop protocols and projects that demonstrate good ways forward, providing hope and insight into how to navigate these issues.

AISES Members Meeting

In conjunction with its Annual Conference in Spokane, Washington, AISES will hold the annual meeting of its membership. Join other members on Saturday, October 21, 2023 at 2:30 p.m. – 3:20 p.m. to meet the new Individual Membership Team and engage in the business of the membership. The meeting is open to all conference registrants but only members are eligible to vote in-person on the meeting agenda and the previous year's minutes, or online on resolutions approved by the AISES Board of Directors. The meeting will be live streamed via Zoom for those members who cannot attend the conference. Look for an announcement with a Zoom meeting link, the resolution(s) for members' consideration and vote, and a time frame for the vote.

Session Descriptions

#AISESNC23

AISES Merchandise Booth

Buy AISES branded apparel and accessories at the merchandise booth, including the official AISES National Conference t-shirt!

Pick up your pre-purchased ticket for Friday night's Professional Networking Reception at the merchandise booth.

Cash and credit cards are accepted for all purchases.

An Overview and Impact of Wells Fargo's Native People Employee Resource Network

PROFESSIONAL & WORKFORCE DEVELOPMENT

Andrea Walker

Diverse Segments Relationship Lead
Wells Fargo

At Wells Fargo, our Native Peoples Connection ERN encourages employees to engage with and build greater understanding and support for American Indian, Alaskan Native, and Native Hawaiian communities and provide insight into various indigenous subcultures. Established in 2003, Wells Fargo has supported the largest, most active Native ERN presence than other banking institutions. These ERN members are committed to the care, education, and culture of Native Peoples, while supporting the business and finding opportunities for career development, networking, and community outreach. Members are passionate advocates, allies, and ambassadors for the Native community within and outside Wells Fargo. Through an onsite speaking engagement, we hope to create a space of inclusion and awareness about our Native employees and how they are making impactful contributions within our company. Together, with the help of future AISES members, we hope to inspire, drive change, and create an avenue for allyship.

Artificial Intelligence in Payments

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Nirmal Baid

Vice President, Data & Artificial Intelligence Initiatives
VISA

Nathan Bussiere (*Mashpee Wampanoag*)

Design Research Senior Director
VISA

Trust and security are foundational elements of Visa's promise to be the best way to pay and be paid for everyone, everywhere. In order to deliver on that promise, Visa deploys a number of powerful products that use Artificial Intelligence to derive insights, analyze and score transactions, and identify fraud in order to serve our financial institutions, merchants, and consumers. Visa has been using AI for over 25 years; however, we continually conduct scientific research and develop working prototypes to find new and groundbreaking capabilities using AI and ML. In this session, we will discuss the Visa products that use AI and review the benefits they provide. We will also discuss the breakthroughs offered by ChatGPT and Generative AI, and what these new technologies might mean to our business, and the payment industry more broadly.

Biosciences at Berkeley Lab - To Sustainability and Beyond

BIOLOGICAL SCIENCES

Dr. Katy Christiansen

Interim Biosciences Area Deputy
Lawrence Berkeley National Laboratory

Amber Golini

Senior Research Associate,
Northen Lab
Lawrence Berkeley National Laboratory

Sara Harmon

Manager, Communications and Outreach, Joint BioEnergy Institute
Lawrence Berkeley National Lab

Sapana Kanakia

Senior Talent Acquisition Partner
Lawrence Berkeley National Laboratory

The Department of Energy (DOE) is about more than energy conservation. In addition to focusing on national-scale challenges in energy, researchers in the Biosciences Area at DOE's Lawrence Berkeley National Laboratory (Berkeley Lab) lead cutting-edge research in environmental, health, biomanufacturing, and technology development. Enabled by Berkeley Lab's world-class user facilities and collaborative research programs, our scientists and engineers contribute groundbreaking discoveries and innovative solutions by applying biology to solve energy and environmental challenges. Through this workshop, you will learn about our breadth of biological research and how your skills and interests can be applied to make a difference in both the environment and the community. Inclusion, Diversity, Equity, and Accountability (IDEA) are embedded in Berkeley Lab's stewardship values and commitment to team science. We encourage AISES members to consider joining our team.

Blood Quantum

INDIGENOUS KNOWLEDGE

Norbert Hill, Jr. (*Oneida*)

Council of Elders
AISES

Blood quantum has shaped Native identity and has been the primary determinant in deciding "Who is an Indian" for over a century. The conversation about Native identity—sometimes civil—has been going on in Indian Country far longer than that. And we will continue blood quantum laws are changed or not. We are living in challenging circumstances when it comes to navigating what it means to be Native; tribal disenrollment, DNA testing, egg and Sperm banks, CDIB cards, phony Indians, online dating, debates over sports mascots, all challenge our definition of being is and what is not. This is a leadership moment for AISES students. What does it mean to be an Indian Engineer/Scientist? We want our students to land on their moccasins—not on their Gucci's when they graduate from college. You can't run from who YOU are or WHERE you came from. This session will inform and explore the issues surrounding blood quantum. Students will have a greater understanding of their responsibilities to their families and communities. What does it mean to be an Indian STEM student? AISES has an investment in you; an investment that we can't afford to lose.

Building Broadband Access

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Ken Twist (*Cherokee*)

Director

Cisco

There are many different last mile broadband access technologies, and all have different properties making them suitable for different deployments. Cisco is agnostic to any access technology and works with best of breed partners. In this section we will discuss the pros and cons of different access technologies including active Ethernet, passive optical networking (PON), broadband fixed wireless, mobile and Wi-Fi. Cisco may be supported by our access partners in discussing these technologies.

Building Community Through Beading

COMMUNITY BUILDING

Alex Armendariz (*Mescalero Apache (Descendant)*)

Graduate Student

Cal Poly Pomona

Justin Mills (*Choctaw/Cherokee*)

Student

Cal Poly Pomona

Camille Sanshu (*Laguna Pueblo*)

Student

Cal Poly Pomona

As Indigenous scholars in STEM, it is often an isolating experience. Not all colleges and universities have spaces dedicated to supporting Indigenous scholars, but there are opportunities to build community through our AISES chapters. One way of building community being utilized at Cal Poly Pomona is our beading circles. Beading circles are an opportunity to develop relationships with fellow Indigenous scholars while exploring the intersections of STEM and Indigenous culture. Participants will engage in this community building practice and discuss different ways to connect beading to STEM. Participants will be able to bead a small piece of jewelry as part of this workshop.

Building Equitable & Inclusive Workspaces Across Federal Agencies: The Value of Diversity, Equity, & Inclusion Beyond Hiring

PROFESSIONAL & WORKFORCE DEVELOPMENT

Dr. Asmeret Asefaw Berhe

Director of the Office of Science for the U.S. Department of Energy
US Department of Energy Office of Science

Michael Connor (*Taos Pueblo*)

Assistant Secretary of the Army (Civil Works)
US Army Corps of Engineers

Dr. Makenzie Lystrup

Director
NASA Goddard Space Flight Center

Lt. General Scott A. Spellmon

55th Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers
US Army Corps of Engineers

K. Andrew Wroblewski (*Choctaw Nation of Oklahoma*)

Deputy Assistant Secretary and Assistant Director of Diplomatic Security Service - Bureau of Diplomatic Security
U.S. Department of State

Hear from a panel of Federal Executive Leaders who are committed to partnering with AISES to ensure their federal agencies include space for their Indigenous STEM talent to thrive and grow professionally once they enter their work-force. Each agency will share how partnering with AISES and investing resources to recruit Indigenous STEM talent adds value and depth to the diverse workspaces they are committed to providing. AISES has developed a 5-year Strategic Business plan that includes the commitment to collaborating with our partners to ensure this space is equitable and inclusive to ensure students and professionals are supported, encouraged and experience growth once they enter the federal workspace. These federal leaders will share how their agency is committed to building equitable and inclusive workspaces in partnership with AISES and why this is critical for the diversity they seek to obtain and maintain within their federal agency.

Canadian Members Meeting

All Canadian AISES members and conference attendees are welcome to gather, network, discuss and learn about future opportunities and events happening in Canada.



Session Descriptions

#AISESNC23

Career Pathways: Management vs Technical Fellow

COLLEGE & CAREER READINESS

Jarrold Calhoun (*Cherokee*)

Chief Engineer
Boeing Company

Dr. George Parker

Technical Fellow
Boeing Company

Alex Tsosie (*Navajo (Dine')*)

Sr. EHS Specialist
Boeing Company

There are three roads as an engineer that one can take in their career, Management vs Technical is about the difference in choosing management (leader) or stay in the technical field as an engineer. There are pro and cons to both roads you choose. It would be up to the engineer to decide what works best for them. At a cross road in their career a mentor can help you with the path choice. Let us explore the tree of life for a Boeing Engineer as we discuss the fellowship and the prestigious honor that comes with being a Boeing Technical Fellowship.

Chapter Advisors Meeting

All AISES college chapter advisors are invited to join this meeting. This is a time to network with other chapter advisors and discuss best practices, ideas, and concerns involving advising an AISES college chapter.

Chart Your Course: Pursuing Employment Opportunities U.S. Coast Guard

PROFESSIONAL & WORKFORCE DEVELOPMENT

Lauren Rainford

Account Director
United States Coast Guard

Learn about STEM employment opportunities with the U.S. Coast Guard, including the College Student Pre-Commissioning Initiative, Active Duty and Civilian employment opportunities. The Coast Guard's missions are diverse and challenging-and so are our careers. From positions in or out of uniform, in information systems to aviation to marine science, you'll find opportunities in the Coast Guard that fit your professional goals and personal interests. In the Coast Guard, you can Chart Your Course and turn your passion into a rewarding career that keeps our nation safe.

Circular Economy Engineering: Fostering Sustainable Solutions for a Resilient Future

ENGINEERING

Mitchell Barrett

Student
The University of British Columbia

As the world transitions to increased sustainable practices, the concept of circular economy has gained prominence and is a subject of debate in many industries. This session explores the principles of a circular economy and how they are incorporated within engineering practices to foster sustainable solutions. Circularity aligns with traditional indigenous practices of holistic resource management, emphasizing the opportunity to integrate indigenous knowledge with engineering principles. This, in turn, can provide opportunities for more indigenous engineers and collaboration within engineering projects. Drawing upon my own research in the field of material

science, the application of circular economy principles is illustrated, and the potential environmental impacts are emphasized. Innovative and sustainable solutions can be developed by incorporating circularity with engineering practices to minimize waste and maximize resource efficiency. This circular concept not only addresses global concerns but also can pave the way for a resilient economy while reducing our environmental impact.

Closing Banquet

The Closing Awards Banquet features live entertainment, pays tribute to the AISES Professional of the Year Award winners, Partner Service Award recipients, and much more!

Closing Talking Circle (All Welcome)

Facilitated by the honored AISES Council of Elders, the closing talking circle is a unique opportunity to know each other deeply, support each other, collaborate on an idea, and learn from one another about the National Conference or other experience. Bring your authentic self to reflect and listen to each other with our hearts and hold space for one another. Listen to others as they contribute a story, a song, or a point of view. Everyone can participate in complete honesty. Enter with an open heart and emerge with something useful for yourself, your community or global vision.

College and Career Fair

AISES hosts the largest College and Career Fair in Indian Country that is for Indigenous professionals, high school, and college students from the U.S. and Canada. The Fair attracts professionals and college recruiters from 235 corporations, government agencies, and colleges and universities. This mix encourages mentoring and sharing that is unparalleled at any other event. This year interview booth #'s 1 - 36 will be in the exhibit hall and interview booth #'s 37 - 96 will be in Ballroom 300ABCD. Ballroom 300ABCD is located downstairs, directly below the exhibit hall.

College and Career Fair Lunch

Lunch provided inside the entrance of the Exhibit Hall and dining tables are available on the Riverside Overlook, outdoors, or anywhere you can find a spot to enjoy your lunch!

College Counseling Considerations for Native American High School Students

COLLEGE & CAREER READINESS

Kerrie Troseth

Indian Education School Counselor/Owner
Saint Paul Public Schools/Four Directions Educational Consulting Services

According to the National Center for Education Statistics 2023 report, only 28 percent of Native American 18- to 24-year-olds are attending college compared to 38 percent of the total group. In this session, learn how to integrate culturally responsive college counseling strategies to elevate Native American high school students towards college. Presenter will share how a culturally responsive model was designed to support Native youth on their college bound journey. Participants will identify protective factors to consider in the college planning process with Native youth, integrate those factors into college searches with Native youth, and investigate cultural, college planning resources to integrate into their practice.

Session Descriptions

#AISESNC23

College Student Regional Networking

AISES students are invited to gather by region to discuss issues of interest as well as plan for their upcoming regional conference. Led by the Regional Student Representatives, this is a time for students to meet other students and professionals in their region. This is a student event, but professional members and corporate partners are welcome to attend to network.

College Student Region 1
Convention Center Location: 201BC

College Student Region 2
Convention Center Location: 202BC

College Student Region 3
Convention Center Location: East Bridge (outside 203)

College Student Region 4
Convention Center Location: West Bridge (outside 207)

College Student Region 5
Convention Center Location: 203

College Student Region 6
Convention Center Location: 202A

College Student Region 7
Convention Center Location: 201A

Conference Check-in and Registration

All conference attendees must be registered and your conference name badge worn at all times. You will not be granted access to any event without your badge. Pick up your name badge and other important conference materials at the conference registration desk. Exhibitors who ordered lead retrieval devices may pick them up at the ATS tech table near the conference registration desk on Friday at 7:30 a.m. AISES offers membership for individuals as well as for high schools, colleges and universities and professional groups. Student membership is FREE. Visit the AISES Membership booth for more details and to sign up!

Corporate Advisory Council Meeting (CAC)

The AISES Corporate Advisory Council (CAC) is a professional association of corporate representatives who support AISES in its mission of increasing the number of Native people in STEM.

If you are interested in being involved in the Corporate Advisory Council, please contact Kellie Jewett-Fernandez, Vice President of Business Development at kjfernandez@aises.org

The CAC provides industry advice and counsel for the AISES Executive Leadership and the Board of Directors and contributes to advancing the AISES mission by:

- Providing scholarships, internship programs and/or employment opportunities to college students and professionals.
- Supporting the development and implementation of programs that engage PK-12 students, teachers, and families in the STEM fields.
- Participating in and supporting AISES events through sponsorships, presentations, and providing career information and resources.
- Supporting and engaging the student and professional chapters in their local areas.
- Providing industry expertise and guidance related to current/projected employment trends and needs.

- Developing support for AISES consistent with individual company capabilities, including financial contributions, in-kind gifts and human resources.
- Assisting AISES in fundraising efforts through networking and participation.
- Facilitating effective public relations for AISES activities via coverage in company publications.

Cultivating Lifelong Stewardship: Empowering Indigenous Students from K to Grey in NOAA's Educational Initiatives

EDUCATION AND STUDENT SUCCESS

Sarah Venema

Federal Outreach Coordinator NOAA Boulder
National Oceanic and Atmospheric Administration

Embarking on the path of earth stewardship is a lifelong journey. Whether your childhood fascination with clouds and weather sparked curiosity, or studying the ocean and atmosphere in middle school mesmerized you, or high school introduced the interconnectedness of these elements and their environmental impact, your passion was ignited. NOAA proudly offers programs fostering a love for the sky, sea, and earth from kindergarten and beyond. Join us as we explore diverse educational initiatives, engaging lesson plans, valuable internships, sought-after scholarships, community-driven science projects, funding opportunities, and partnerships with Indigenous communities. Our aim is to equip students with skills for degrees, careers, and community engagement in clouds, weather, ocean, and atmosphere. We value your input on enhancing program relevance, meaning, and accessibility for Indigenous communities. Discover the remarkable accomplishments of Indigenous students in NOAA's initiatives as we nurture the next generation of stewards, honoring Indigenous wisdom for a brighter future.

Dam Removal on the Klamath River

ENGINEERING

Brian Billy (*Navajo*)

Engineering Supervisor, PE
Bureau of Reclamation

The world's largest dam removal project is currently underway in the Klamath Basin. Dam decommissioning will improve the habitat and health of fisheries by allowing salmon, steelhead, and lamprey access to over 400 stream-miles of historic spawning habitat upstream of the dams. This project will include the removal of 4 dam structures and restoration of the Klamath River system. The removal of these facilities will result in two remaining upstream dam structures (Keno and Link River) left to regulate flows, provide for irrigation, and provide flood control. It is anticipated the Bureau of Reclamation (BOR) will take over operation and maintenance of these facilities. The successful planning and coordination to transfer care and custody to Reclamation of Keno Dam will be key to the success of the Klamath Project for all stakeholders and tribal entities in future years.

Session Descriptions

#AISESNC23

Data Science Career Networking and Panel Workshop (ORAU/NLM)

HEALTH & MEDICAL SCIENCES

Dr. Allissa Dillman

Data Engagement Coordinator

BioData Sage/ORAU

Data science is an emerging field that blends techniques from computer science, statistics, and epidemiology, among other domains. New data science approaches show promise in addressing critical public health needs. This networking and panel workshop will explore data science careers from a range of perspectives across the National Institutes of Health (NIH). Moderated by a former NIH employee and fellow with extensive experience in the field, attendees will engage with Indigenous data science professionals about their education and career paths, the skills expected of these positions, where and how to seek similar opportunities, and what to expect when working in these fields. The session will include an opportunity to network with panelists and representatives from federal agencies and non-profit organizations offering fellowship and internship opportunities in biomedical and public health disciplines for students and professionals.

Decoding the Top 200 Colleges Listings

EDUCATION AND STUDENT SUCCESS

Karen English

Editor

Winds of Change

Kristen Goodfriend

Art Director

Winds of Change

Montoya Whiteman

(Cheyenne and Arapaho)

Managing Director of Editorial and

Special Projects

AISES

This year the Special College Issue of *Winds of Change* is marking 30 years of publishing a unique resource for our readers: the Top 200 Colleges for Indigenous Students. Much more than a simple roster, the Top 200 offers readers multiple categories of information about each school. The goal of this session is to help students make the most of this proprietary research. We will walk attendees through each category, explaining what they should pay attention to when looking at any college and helping them prioritize their own considerations for making a choice. .

Demystifying the Pharmaceutical Industry – Internship and Job opportunities

HEALTH & MEDICAL SCIENCES

Dr. Tannia Mair *(Dine'/Navajo)*

Research Scientist

Eli Lilly and Company

The pharmaceutical industry, often shrouded in mystery, plays a crucial role in developing life-saving medications and advancing healthcare. It is a dynamic field that combines science, technology, engineering, and innovation. Join us in demystifying the field and discover the world of life-saving research, breakthrough medications, and global health impact. Also, learn about how you can become a part of a diverse and innovative workforce that is shaping the future of medicine. Internship opportunities in the pharmaceutical

industry offers a unique opportunity to gain hands-on experience in drug development, clinical trials, regulatory affairs, manufacturing, quality control, and more. Your talents, unique perspectives, and participation can contribute to developing medicines that are more inclusive. Let's create a brighter, healthier future for our communities together.

Elder's Lounge - One on One

Stop by the Elder's Lounge to seek wisdom, strength, love, or personal guidance from a member of the AISES Council of Elders.

Empowering Indigenous Futures: AISES Scholarship and Internship Opportunities

EDUCATION AND STUDENT SUCCESS

Taylor Kingsbery *(Chickasaw Nation)*

Student Success Program Officer

AISES

Discover scholarship and internship opportunities for Indigenous students in STEM! Join Taylor Kingsbery, AISES Student Success Program Officer, as she guides you through the application process and provides valuable tips for success. Explore tailored programs supporting Indigenous students in science, technology, engineering, and mathematics (STEM) fields. Gain insights into eligibility criteria, selection procedures, and key application dates. Whether you're an undergraduate, graduate, or Ph.D. student, this session equips you with the knowledge and tools to seize these opportunities. Join us in shaping a brighter future for Indigenous representation in STEM by applying for AISES scholarships and internships.

Entrepreneurship Panel

STEM & BUSINESS

Madison Habeck *(Cherokee Nation of Oklahoma)*

Career Support Program Officer

AISES

An engaging panel of STEM entrepreneurs discussing their path to business ownership, developing a business plan, and the intricacies of operating tribal enterprises. The session will also highlight AISES opportunities to support Indigenous STEM entrepreneurs.

Equity-Centered Design: How the federal government centered Native voices in improving public services

INDIGENOUS KNOWLEDGE

Austin Hernandez

Product Designer

18F

Practices that federal agencies use to design digital products and services do not do enough to uphold federal government commitments to Tribal sovereignty. Federal agencies' work with tribes is not always conducted consistently, this leads to products and services that don't meet tribes' needs. It's time to work collaboratively and tribal communities should have a say regarding services that are built for them. Ongoing research at the Technology Transformation Services pushes for new ways of designing products and services that place the expertise of the community at the forefront of a project—as well as educating and providing resources on sovereignty, history, and treaties to non-Native designers so the unique needs of AI/AN communities are both included and

Session Descriptions

#AISESNC23

respected. This session will discuss work done on a project on Equity-Centered Design for American Indians and Alaskan Natives (AI/AN) and share how product designers in government are centering indigenous voices.

Expanding AISES Communities in Biological Societies

BIOLOGICAL SCIENCES

Joseph Gazing Wolf (*Lakota, Amazigh, Nubian*)
Senior Global Futures Scientist
Arizona State University

Dr. Lydia Jennings (*Pascua Yaqui Tribe/Wixarika*)
Presidential Postdoctoral Fellow
Arizona State University/Duke University

Emiliano McLane (*Te-Moak Western Shoshone*)
Graduate Student
New Mexico State University

Jocelyn Painter (*Winnebago Tribe of Nebraska*)
Ph.D. Student
Duke University

Dr. Melissa Reed (*Cherokee Nation*)
Post Doctoral Researcher
Oklahoma State University

Cheyenne Reuben-Thomas (*Oneida Nation of Wisconsin*)
Ph.D. Student
Cornell University

AISES creates communities that foster relationships, knowledge, and opportunities for Indigenous peoples. While these communities bring comfort in understanding that they were created for Indigenous people, AISES can also provide opportunities to create Indigenous communities in institutions and societies that were not specifically created for Indigenous people. This session will focus on how AISES communities can collaboratively expand into other institutions and societies, particularly related to botany, ecology, and entomology. Reflecting on their experiences, Lighting the Pathway (LTP) scholars will share their stories of challenges and successes in their fields, AISES communities, and involvement in the Botanical Society of America, Ecological Society of America, and Entomological Society of America.

Exploring the Evidence

MATHEMATICAL AND PHYSICAL SCIENCES

Avery Brinkheide (*Seneca Nation of Indians*)
Student
Tohono O'odham Community College

Deneen Hernandez (*Seneca Nation of Indians*)
Forensic Examiner
FBI Laboratory Retired

Exploring the Evidence" provides hands-on activities in forensic science and the examination of evidence. 3 stations regarding a missing person case will highlight the following forensic disciplines: impression evidence (dental/shoe impressions), cryptanalysis (code breaking and a ransom note), and forensic anthropology (identifying the potential victim through physical examination of the body). Students will document, analyze and decipher evidence from the crime scene. Students will use worksheets to progress to the end of the activity.

Face Risk Head On As an Actuary: A Career that Merges Math and Business

STEM & BUSINESS

Actuaries employ specialized knowledge of mathematics, finance, statistics, and risk on problems faced by a variety of individuals and industries. In this session, we'll share more about the type of work that actuaries do across a variety of industries and the new and emerging risks that actuaries help manage, like cyber risk, climate change, artificial intelligence and automated vehicles. Members of the Casualty Actuarial Society and the Society of Actuaries will share their personal journeys and the steps you can take right away to get started and advance on the actuarial career path. If you want to combine your interest in mathematics, business and human behavior to increase the economic well-being of individuals and organizations, this is a career you should know about.

Fighting Fire with Fire: Can Traditional American Indians burning practices help reduce devastating wildfires

INDIGENOUS KNOWLEDGE

Randolph Pico (*Luiseño*)
Engineering Directorate Senior Superintendent
LLNL

To mitigate wildfire risk and promote climate resiliency in California's forests, partnerships between Indigenous scientific knowledge and Western scientific knowledge are critical. We describe the development and progress of a collaborative research project between the Karuk Tribe and Lawrence Livermore National Lab to examine the effects and history of fire on the Klamath River landscape, highlighting steps to forming a strong collaborative relationship and potential future activities to support the Tribe's efforts at co-stewardship of their aboriginal lands.

FIRST STEPS: A Resource for Engaging with Indigenous Communities in STEM

COMMUNITY BUILDING

Melinda Higgins
Director of STEM Programs
U.S. Department of Energy

The project team from Beyond100K, "Supporting STEM Education in Tribal Communities," developed a resource to assist non-Native STEM educators and others who would like to begin outreach and engagement with Indigenous communities. This dynamic resource has been co-produced with Tribal members, many of whom are listed in the booklet. In this session, the team will engage the session participants as we work through the resource together, gathering input and feedback, and introducing the second draft version that will be focused on Alaska Natives.

Session Descriptions

#AISESNC23

From Sci-Fi to Reality: How Places Like JPL Make it Happen!

ENGINEERING

Hope Chambers (*Chickasaw*)
Robotics and Autonomous
Systems Grad Student /
Academic Robotic Engineer
*Johns Hopkins University / NASA
Jet Propulsion Laboratory*

Lanie James (*Muscogee
Nation*)
Employer Brand
Communications Lead
NASA Jet Propulsion Laboratory

Raheesa Legohn
University Recruiter
NASA Jet Propulsion Laboratory

Lauren Denson (*Chihene Nde
Nation of New Mexico*)
Technical Group Supervisor
NASA Jet Propulsion Laboratory

Dr. Eric Larour
Group Supervisor for the Sea
Level and Ice Group
NASA Jet Propulsion Laboratory

Lori Shiraishi
Associate Chief Engineer (ACE)
NASA Jet Propulsion Laboratory

Making sci-fi a reality: the science, technologies and innovations dreamt up in our favorite Hollywood and entertainment properties, aren't just confined to the screen or comic books. NASA's JPL (Jet Propulsion Laboratory) in Pasadena, California is full of researchers, technologists, scientists, engineers and more working on making science-fiction into a reality. "Nerd" culture is strong at JPL, from what entertains and inspires us to how we work. Meet those of us whose careers are all about getting us from today to a bold future, and how everyone can included in the journey.

Getting American Indian and Alaska Natives Students into and successfully through Medical School

HEALTH & MEDICAL SCIENCES

Dr. Jason Deen (*Blackfeet*)
Associate Professor of Pediatrics and Medicine at the University of Washington Medical Center, Division of Cardiology and Executive Director of UW School of Medicine Center for Indigenous Health
University of Washington School of Medicine Center for Indigenous Health

Millie Kennedy
Tribal Liaison
UW School of Medicine

American Indian and Alaska Native (AI/AN) people experience significant health inequities when compared with other Americans. An important strategy to addressing these inequities is to prepare AI/AN high school and college students getting into and through medical school, to increase AI/AN physicians caring for Tribal and Urban Indigenous communities and practicing academic medicine. This session is a collaboration with the University of Washington School of Medicine (UWSOM), Oregon Health & Science University (OHSU) and Washington State University Health Sciences. The workshop will include Indigenous Doctors and Medical Students to provide high school and college students with an overview of how to prepare for getting into and successfully through medical school and pursuing an academic career. The participant will learn (1) What classes to take to get into medical school (2) Ecosystem enrichment programs offered by each medical school and (3) Introduce AI/AN students to careers with Tribal and Indigenous communities, and academic medicine.

Getting to know AISES and a guide to Chapter Success

COLLEGE & CAREER READINESS

Kaitlan Lyons (*Ojibwe/Anishinaabe*)
Engagement Officer
AISES

This info session will give tips and tricks on how to maintain a successful chapter and other general AISES information.

Government Relations Council Meeting (GRC)

The AISES Government Relations Council (GRC) is comprised of U.S. Government employees. If you are interested in joining the Government Relations Council, please contact Alicia Mitchell, Associate Director of Tribal and Government Relations at amitchell@aises.org.

The GRC establishes and supports working relationships between Federal government agencies and AISES, and identifies government resources, develops strategies, and promotes government careers in support of the AISES mission by:

- Assisting in the placement of Native people into government jobs.
- Supporting the development and implementation of programs that engage and support AISES students and professionals in the STEM fields.
- Identifying federal internship and employment program for AISES membership.
- Coordinating and participating in government sponsored workshops at AISES events.
- Supporting student and professional chapter events.
- Providing industry expertise and guidance related to STEM education and workforce needs and trends.
- Identifying federal funding opportunities for AISES.

Graduate Student Mixer

Be a part of this fun and interactive networking session for graduate and master level student attendees. Light hors d'oeuvres will be served.

Growth & Comfort Do Not Coexist

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Tara Astigarraga (*Choctaw Nation of Oklahoma*)
Distinguished Engineer & Master Inventor, Systems Assurance
IBM

In this session we'll talk about the importance of working outside of your comfort zone and giving yourself permission to experiment/learn/fail. Some of the greatest inventions and technical accomplishments often come at the tail end of lessons learned. In the rapid changing field of science & technology, we have to embrace continual learning and taking on challenges outside of our comfort zones. This session will be interactive and share tips & tricks for learning and operating outside of your comfort zone.

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Hacking the Borg – Driving global change from within the system

ART, ARCHITECTURE, AND DESIGN

Das Kamhout

Senior Principal Engineer
Intel

Ryan Tabrah

General Manager, E-Core
Xeon Products
Intel

Are you worried about working in tech with the immense electricity it uses but are deeply intrigued by how to make it better? Are you concerned about corporation growth with no accountability to a sustainable environment? Are you tired of governments and local laws being too slow to react to the growth of datacenters, the focus of resources, and the continued disparity between where the datacenters are and who actually controls them? Do you want to be part of the change?

We will share some stories about learning the established corporate systems, becoming part of the system, and changing the system to improve our earth and our home. Learn how as a new junior STEAM professional to rise into leadership at major companies – how you can make difference in the trajectory for our technical future being for a better planet.

Harnessing Tribal Expertise for Sustainable Management of the Columbia River Basin System: Enhancing Salmon and Lamprey Passage

BIOLOGICAL SCIENCES

Dean Holecek

Tribal Liaison
US Army Corps of Engineers

Jaime Pinkham (*Nez Perce*)

Principal Deputy Assistant
Secretary
Army for Civil Works

The Columbia River Basin, with its hydroelectric infrastructure, plays a vital role in supporting energy production, irrigation, and navigation in the Pacific Northwest. However, the construction and operation of dams have had significant ecological impacts, particularly on the migration patterns of salmon and lamprey, which are culturally and economically essential to Indigenous peoples. Indigenous communities possess technical, legal, and policy expertise important to tribal self-determination as well as an extensive body of traditional knowledge, that holds valuable insights into the behavior and life cycles of these iconic fish. Incorporating indigenous knowledge into contemporary management practices offers a promising pathway to develop sustainable strategies that strike a balance between energy production and the preservation of cultural and ecological heritage. This panel session engages tribal scientists, engineers, legal and policy experts in a meaningful dialogue regarding the regional forums to improve fish passage in the basin, emphasizing the role of Tribal partners.

Healthcare Facility Engineering - Are you ready for a real challenge?

ENGINEERING

Joseph Jones (*Kaw / Otoe-Missouria*)

Director - Div. of Facility Operation, Construction, and Planning
Indian Health Service / Oklahoma City Area - OEH&E

The field of healthcare facility engineering and management is a

diverse and challenging field. Come and hear about some of the opportunities within the field and where it will be going in the future.

How Are We Feeding the Massive Technology Appetite in the Gaming Vertical?

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Jodi DiLascio

Business Development
Representative
AISES

Anna Eleazer

Head of Diversity, Equity &
Inclusion
BetMGM

Casey Flair

Director of Corporate Social
Responsibility & Corporate Affairs
Aristocrat Technology

Despite concerns about the financial health of consumers throughout 2022, the U.S. gaming industry generated record-breaking revenue. Total U.S. gaming revenue in 2022 exceeded \$100 billion for the first time. For context, combined commercial and tribal casino gaming is on par with overall U.S. beer sales, which hit \$100.2 billion in 2021. When Covid struck the bricks and mortar casinos, the affect was drastic, properties closing doors for months. However, it was opposite with expansion of gaming in the Online space. Growth was epic, and it continues. So too are opportunities for career development in this vertical. With Game technology companies recruiting the greatest, creative minds, what's their strategy for finding the next game developer, software engineer, data analyst, or cybersecurity expert? We'll gather game technology organizations and Tribal Gaming enterprises, discussing US Gaming industry today, and how careers in this proliferating industry have never presented greater opportunities than today.

How to be a Good Ally

SOCIAL & BEHAVIORAL SCIENCES

Dr. Mark Bellcourt (*White Earth Nation*)

Consultant
Indigenous Minds

"Ally" is defined as "...a person or group that provides assistance and support in an ongoing effort, activity, or struggle." Given this definition, one can support and connect with any number of causes. But what makes a person a good ally? A google search yielded more than 337 thousand results on "...how to be a good ally," I was concerned with many of the results. Many sites, I suspect, were developed by "do-gooders" who think they know what others need. They offer advice like, "...own the struggle..." and "...give privilege to those who lack it..." Sorry, but that's just plain disrespectful! As a queer man, I want to own my struggle and I already have privilege? This session is intended for anyone interested in learning how to be a culturally sensitive ally. It will focus on ten "IndigiNated" ways that people can collaboratively support the struggles or causes of others.

How to Net-WORK It!

COLLEGE & CAREER READINESS

Cliff Jacobs (*Tuscarora*)

Technical Recruiter
Bloomberg L.P.

Networking is often never taught but something that is just expected of us to do when entering a new space with new people. Many of us didn't have any education or practice when it comes to networking

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with others. How to Net-WORK It brings folks back to the basics of what networking is, why it's important, the "SEARCH Method" to network, and will give participants a chance to connect and learn from others in attendance to expand their personal networks, chat with other Native folks in the field, and increase your confidence in entering a networking space.

Imagine working for the US Army Corps of Engineers – finding your people and a career

PROFESSIONAL & WORKFORCE DEVELOPMENT

Violet Albright (*Turtle Mountain Band of Chippewa Descendant*)

Chief of Construction Division for Seattle District
US Army Corps of Engineers

Quana Higgins (*Oglala Sioux Tribe*)

Assistant Secretary of the Army for Civil Works, Acting Assistant for Tribal and Regulatory Affairs
US Army Corps of Engineers Civil Works program

Kimberley Oldham (*Muscogee Creek/Yuchi*)

Senior Hydropower Program Manager for Southwestern Division
US Army Corps of Engineers

Kevin Harper (*Descendant of Pamunkey, Nansemond, Cherokee and Lumbee Tribes*)

Chief of Environmental Resources Branch for Sacramento District
US Army Corps of Engineers

Michelle Larson (*Leech Lake Band of Ojibwe*)

Program Manager (Tribal Liaison)
US Army Corps of Engineers

Stephen Scissons (*Acoma Pueblo*)

Chief of Hydrology and Hydraulic Branch for Albuquerque District
US Army Corps of Engineers

What is it like to work for the US Army Corps of Engineers as a Native American? This panel of Native American employees will talk about finding their people in a large government water resources engineering agency. They'll discuss how they've found ways to support Tribes from within USACE. They'll also talk about networking with each other and how mentoring both as a mentor and mentee has helped them go from having a "job" to developing a "career" with growth and leadership potential. The focus of having Native Americans leading the Assistant Secretary of the Army for Civil Works Office, which oversees USACE, has been inspirational and provided agency emphasis on improving interactions with Tribes and projects for Tribes along with support of Native American employees in general.

Incorporating Indigenous History and Knowledge in the Mining Engineering Curriculum

ENGINEERING

Melanie Mackay (*Neskonlith*)

PhD Student
University of British Columbia

Tonia Welch

Assistant Professor
University of British Columbia

The Mining Engineering Department at the University of British Columbia has been working to update their curriculum to incorporate more Indigenous history, Indigenous knowledge, and skills for consultation and engagement with First Nations, Métis, and Inuit Peoples in Canada. Through the redevelopment of the second year curriculum, we want to move away from the traditional engineering education that focuses on western-centric technical

concepts, and make space for Indigenous worldviews within the course content. This session focuses on changes that the presenters have made to the second-year mining engineering curriculum to date, and discusses next steps they want to take in order to provide mining engineering students, and future mining industry leaders, with the knowledge necessary to respectfully and successfully work with First Nations, Métis, and Inuit Peoples.

Increasing Native American representation in the oral health professional workforce and improving the oral health of our communities

HEALTH & MEDICAL SCIENCES

Dr. Joe Dill

Chief Dental Officer
Delta Dental Plans Association

Inequities in oral health and overall health care persist in Indigenous and Native communities across the country, and rural areas often face some of the most daunting barriers. In addition, Indigenous and Native peoples are severely underrepresented in the oral health professional workforce. Increasing oral health literacy and expanding access to care are critical factors that will improve the oral and overall health of our communities. Having more Indigenous and Native oral health professionals, such as dentists and hygienists, delivering care is also a critical part of achieving sustained improvements in oral health across our communities. During this session, we will discuss the current state of oral health in our communities and explore ways to improve oral health through improved access to care, oral health literacy, and increasing representation in the professional workforce.

Indigenizing at Amazon

PROFESSIONAL & WORKFORCE DEVELOPMENT

Sarah Brezina

Senior Account Representative,
Amazon Business
Amazon

Hokulani Sharp (*Native Hawaiian*)

AF Regional Terminal Ops Mgr
Amazon

Kristen Upham (*Blackfeet and Cree*)

Sr. Program Manager, Indigenous Seller Recruitment Program
Amazon

This session will provide attendees an overview of how the Indigenous at Amazon ERG helped Indigenize the Amazon business to create inclusive products and services for Indigenous customers and communities. This program will feature an overview of the Indigenous Seller Recruitment Program, a program that supports Indigenous sellers with a customized retail space, and the work that the Amazon Business Sovereign Nations team is doing to support Indigenous sellers thru increased involvement in the Indigenous business community.

Indigenous Gaming Tribes

STEM & BUSINESS

TJ Valtierra (*Red Lake Ojibwe*)

Branch Director
Boys & Girls Clubs of the Twin Cities

This session focuses on the call to advance ESports and the tech industry in Indigenous communities across the continent. This is a

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billion dollar industry and with the right tools and commitment our Indigenous communities can start to reach more youth and pair established organizations and individuals with youth and youth organizations to advance the cause, expose youth to the industry and create opportunities for youth to pursue educational and career opportunities for their futures.

Indigenous knowledge: Stickgames

ART, ARCHITECTURE, AND DESIGN

Kimberlee Blevins (*Mandan Hidatsa Arikara*)

Graduate student

Sitting Bull College

Stickgames, also referred to as Handgames, is a traditional indigenous game that has been played since the beginning of time throughout the US, Canada, and more. It has been referred to as a game of intuition, but requires skill, engagement, and eagerness to learn. Handgames is still a practiced tradition throughout Indian country across all levels. The traditional game is also used to teach probability. We invite all levels of experience, as there is such thing as beginners luck! Come enjoy traditional practices!

Indigenous Lands Representation in Apple Maps

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Tim Swales

Geographic Data Project Manager

Apple

Drew Williams

Product Manager

Apple

Marcus Yazzie (*Navajo*)

Software Engineer

Apple

Giving an overview on the Apple Maps Digital Inclusion project. Apple Maps strives to offer a basemap representing both the physical and political world — we include terrain and physical environments, human settlements and connections, and administrative boundaries. We aim to be inclusive of all communities and local expectations. In this presentation, we will showcase the development of a new basemap layer for Apple Maps and discuss the design and data decisions/challenges, custom interactive features, and community involvement.

Indigenous Participation in STEM/STEAM begins with Belonging: Gathering of ideas through Sharing Circles and Connections

COMMUNITY BUILDING

Deanna Burgart (*Fond du Lac Denesuline First Nation, Canada*)

Teaching Chair

University of Calgary

Unique ways of connecting at AISES gatherings have created powerful spaces of belonging for Indigenous students and professionals alike. Many organizations are seeking to create stronger places of belonging for Indigenous peoples in STEM and can learn a great deal from the AISES Community. In this workshop, facilitators will share key learnings from various experiences over the past few years. They will share ideas in creating ethical spaces of belonging and community. Participants will be invited to engage in smaller talking circles to share what fosters belonging for them and will be invited to share their ideas with the broader group. Presenters will

compile some key ideas into a summary guide which will be shared after the conference. Join Andrea and Deanna as they share some of key lessons they have learned in their journey, and bring your ideas and perspectives for the collective benefit of Indigenous peoples in STEM.

Indigenous Representation in the Navy: – Honoring Warriors at Sea & STEM Opportunities

STEM & BUSINESS

RDML Calvin Foster

Vice Commander/Maritime Partnership Program Director

America's Navy

As a member of the Native American community, Admiral Foster will speak on his experience and career journey in the Navy. In addition, you will gain information about different scholarship opportunities in various STEM fields. The Navy offers several scholarship programs to provide payment for school in exchange for an opportunity to start a career in the Navy. Through these programs, applicants will enter the Navy in a leadership position as a Commissioned Officer - a member of the Navy who has a degree from a 4-year college or university and who has completed Officer Training.

Indigenous Space Force Guardians and Air Force Airmen Stories of Success

COLLEGE & CAREER READINESS

Jacqueline Melcher (*Oglala Sioux*)

Director, Installation Management

Department of the Air Force

The Air Force and Space Force is supported by Indigenous Civilian, Active Duty Officers and Enlisted personnel who proudly serve to protect the Nation's Air, Space and Cyber Domains. Hear stories of success from members who dominate their career fields and how they are removing barriers for the next seven generations.

Innovation and Intellectual Property

STEM & BUSINESS

Thomas Marquis (*Citizen Potawatomi Nation*)

Sr. Corporate Counsel

Microsoft

Are you an innovator? How do different kinds of innovation relate to different kinds of intellectual property? What's the process for obtaining intellectual property rights? Who owns the intellectual property, and how can it be used in business? Please join us to answer these, and other questions regarding technical, creative, and other types of innovations relative to patents, copyrights, trademarks, and other types of intellectual property.

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Intersectionality in STEM: Our lived experiences, barriers to belonging, ideas for acknowledgment and acceptance, and ways to thrive and persist through shared knowledge and building community

PROFESSIONAL & WORKFORCE DEVELOPMENT

Rosamaria Kosaka (*Chamorro (Micronesian)*)
Research Economist
NOAA Fisheries

Catalina Martinez
Equity Advisor
NOAA Ocean Exploration

Dr. Wendy Todd (*Alaska Native Haida*)
Assistant Professor
University of Minnesota Duluth

Dr. Suzanne Van Cooten (*Chickasaw*)
NWS Project Leader
NOAA National Weather Service (NWS)

Intersectionality, as a function of identity, describes how societal impacts associated with different facets of a person's identity can overlap and impact their lives, contributing to unequal outcomes in ways that cannot be attributed to one dimension alone. Having a strong sense of belonging significantly impacts persistence and success, particularly for students of color and women. We know that intersectional identities work together to either offer particular benefits or to limit access and compound impacts of perception, acceptance, oppression or exclusion.

During this interactive session, participants will have opportunities to hear from presenters, and reflect on and share their own intersectional experiences. Goals of this session include supporting our AISES community in the belief and practice that our intersectional identities are strengths that we bring to STEM spaces despite societal barriers, and providing strategies for building and nurturing confidence in ourselves and each other.

Intro to AI: Learn how to use LLMs

ENGINEERING

Sunny Myers (*Lumbee & Sappony*)
Senior DEI Leader, Product
Palo Alto Networks

Edgardo Perez
Sr. Manager, Global Inclusive Recruiting & Readiness
Palo Alto Networks

Join us for interactive workshops and engaging discussions on how everyone can leverage AI to boost productivity, unleash creativity, and drive results. Learn practical techniques, explore cutting-edge tools, and share your LLM experience with other attendees! We will also discuss ethical AI and best practices when using LLMs. **REQUIRED PREWORK:** Attendees should bring a personal laptop/tablet and create personal (free) accounts on Google Bard (bard.google.com) & ChatGPT (chat.openai.com) before attending the session.

Investing in Communities, Inspiring Change

COMMUNITY BUILDING

Casey Flair
Director of Corporate Social Responsibility & Corporate Affairs
Aristocrat Technology

Why Good Business is being a Good Citizen. How collaboration between businesses and communities inspire change.

Knowledge Transfer: Wisdom and Guidance for Management Success

PROFESSIONAL & WORKFORCE DEVELOPMENT

Marcellus Proctor (*Piscataway-Conoy*)
Associate Division Chief
NASA Goddard Space Flight Center

Anthony Sanders
Division Chief
NASA Goddard Space Flight Center

In this interactive session, the audience will have the opportunity to learn what it means to be an effective manager/leader. At the end of the presentation, the audience will be able to identify the signs of what makes an individual a great leader and understand how communication & time management are essential to being an effective manager as well as be able to identify and use their own unique management styles effectively.

Landing a Federal Job: USAJOBS, Application Tips, and more

COLLEGE & CAREER READINESS

Teika Carlson (*Mi'kmaq*)
Special Assistant to the Director
U.S. Office of Personnel Management

Ernesto Rodriguez
Senior Advisor for Operations
U.S. Office of Personnel Management

The Federal Government is the largest employer in the United States with over 2.1 million employees. Federal jobs are available across the country and offer competitive benefits and retirement, career stability with opportunities for advancement, and a great mission serve the American public! During this event we will provide you information on federal resumes, USAJOBS, application tips, and an overview of the application process.

Leading with Indigeneity

COLLEGE & CAREER READINESS

Allyssa Perez
Recruiter, Software Engineer
Google

Arely Silva
Campus Outreach Program Manager
Google

This workshop is for those who want to explore what it means to lead with your whole self and seeing your culture and identity as a superpower. In this workshop we'll explore the following:

- Critically interrogate and breakdown preconceived notions of leadership
- Internalize your experiences to leverage your Indigenous culture as an asset; not something you leave at the door
- Begin to think of ways to own a leadership space in your own communities (school, homes, clubs, etc.)

Participants will leave the session with examples in their own lives where they have led with their culture and community.

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Learn & Apply to NASA's Opportunities in Real Time!

PROFESSIONAL & WORKFORCE DEVELOPMENT

Karen Moore (*Sicangu Lakota*)

Student Engagement Lead

NASA

Building off of our webinar from this summer, NASA Minority University Research and Education Project for American Indian and Alaska Native STEM Engagement (MAIANSE) wants to help you apply to the right opportunity. We know that setting up your online profiles and applying can take up a lot of time and leave you with many questions as to how your application looks to the mentors you're applying to learn from. During this session, the MAIANSE team, NASA mentors and other NASA experts will be sharing information and hands on assistance in real time for anyone interested in learning more. Stations will be set up around the room to help students and professionals apply to NASA Internships, Pathways opportunities, and others curious about how to connect to the agency and add NASA experience to their resumes. Come check us out to get some special, NASA swag and visit our booth!

LGBTQIA2S+ Talking Circle

Circles provide space to open up fresh possibilities for connections, collaboration and understanding. Circles can hold the tensions and emotions that contribute to healing and can support people to use the collective energy to take action. It is an opportunity to express your conference experience with complete freedom. It is an effective way to remove barriers and feel the support and energy of other participants during this moving experience. All are welcome!

Mapping out your Success

COLLEGE & CAREER READINESS

Brenda Morales

Manager of Prospective Student Services

Oklahoma State University

Yokolanda Speight

Diversity, Equity and Inclusion Coordinator

Oklahoma State University

There is a projected lack of global innovation, highlighting the need to encourage historically marginalized groups to pursue careers in STEM (science, technology, engineering, and mathematics) fields. However, navigating traditionally segregated fields within Public White Institutions (PWI) can pose challenges for underserved student populations. As underrepresented students in STEM majors continue to rise, there is an essential need to prepare, encourage and empower students to find their path of success. In this session, the presenters will share valuable tools and resources aimed at empowering students to leverage their distinctive qualities and experiences while holding PWIs and corporations accountable for their diversity, equity, and inclusion efforts. Through shared knowledge, engaged students will maximize resources that enhance their academics and professional development while being encouraged to remain true to themselves and culture. The presentation will offer diverse professionals essential strategies for preparation, retention, graduation, and career advancement.

Maximize Your Impact as a Science Advocate

PROFESSIONAL & WORKFORCE DEVELOPMENT

Lilly Adams

Senior Outreach Coordinator

Union of Concerned Scientists

Shreya Durvasula

Program Manager

Union of Concerned Scientists

Dr. Tommy Rock (*Navajo*)

Presidential Postdoctoral Research

Fellow

Princeton University

Scientists have a valuable role to play in policy and advocacy, but it can feel intimidating to get started. This workshop will showcase a range of science advocacy actions and strengthen skills participants need to be effective advocates. Participants will also learn more about how to find avenues to get involved in advocacy, and how to connect your research, interests, and skills to making a difference. As a result of this session, participants will (1) Learn how to use their scientific expertise, community affiliations, and constituency to inform and defend equitable science-based policy. (2) Understand the range of advocacy actions experts can take. (3) Gain knowledge about the range of avenues for how scientists can level up their engagement and affect change in policies and regulations that benefit the public good. (4) Discern and embrace what information and perspectives to bring to advocacy, including your scientific skills and expertise and your identity.

Men's Talking Circle

Circles provide space to open up fresh possibilities for connections, collaboration and understanding. Circles can hold the tensions and emotions that contribute to healing and can support people to use the collective energy to take action. It is an opportunity to express your conference experience with complete freedom. It is an effective way to remove barriers and feel the support and energy of other participants during this moving experience.

Morning Blessing Ceremony with the AISES Elders

Start your day in a reverent, meaningful and invigorating way. Join the AISES Council of Elders in welcoming a new day.

National Assessment of Tribal Forests and Forest Management in the US

BIOLOGICAL SCIENCES

Serra Hoagland

Tribal Relations Specialist

USDA Forest Service Rocky Mountain Research Station

The National Indian Forest Resource Management Act (NIFRMA) requires decadal, independent assessments about the status of tribal forests and forest management in the United States. In June 2023 the Indian Forest Management Assessment Team (IFMAT) completed the 4th congressionally mandated report. Past and current IFMAT reports show that tribal forestry can serve as a positive example for promoting environmental stewardship, but numerous urgent challenges exist in sustaining tribal forests for the benefit of native communities. Most notably, tribal forestry departments are underfunded and understaffed compared to their neighbors and high stand density conflated with limited processing infrastructure has created complex forest health conditions. However, increases in co-management authorities, tribal self-determination, and the creation of

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new programs that support tribal workforce development may begin to alleviate these challenges. This presentation will review findings and recommendations and encourage participants to get involved in the next report due to Congress in 2033.

National Laboratory Technical Contributions to Tribal Communities

COMMUNITY BUILDING

Stanley Atcitty (*Dine*)

Senior Scientist

Sandia National Laboratories

John Bailon (*Dine*)

Technologist

Sandia National Laboratories

Sandra Begay (*Dine*)

Principal Member of Technical

Staff

Sandia National Laboratories

Tribal communities are encountering an increasing number of significant technical challenges while simultaneously exploring new opportunities. Sandia National Laboratories has a long history of collaborating with tribal communities and American Indian students. At Sandia, Native professionals bring together over 60 years of collective experience working with tribal communities, fostering robust research partnerships, and directly impacting their ability to exercise tribal energy sovereignty and self-determination. In this talk, we will share decades of projects that meet the growing renewable energy technical needs of Native American tribes and providing valuable, real-world experience for Native and Alaska Native STEM students.

Native Academic Leadership in STEM

EDUCATION AND STUDENT SUCCESS

Dr. Timothy Anderson

(*Pokagon Band of Potawatomi*)

Chair, Dept. of Engineering and Technology Management

Portland State University

Dr. Joe Bull (*Delaware Tribe of*

Indians)

Dean, Maseeh College of Engineering and Computer Science

Portland State University

A lot of attention is focused on the pathway of Native STEM professionals at early stages from primary and secondary school through college but an overlooked part is helping Native STEM faculty succeed and serve as role models throughout the stages. The speaker(s) will present their lessons in moving through the academic ladder from high school to college, followed by graduate school and eventually a faculty position. The journey from there can then move on to academic leadership positions. The speakers invite contributions from others in attendance.

Native Artisan Marketplace

AISES is thrilled to have 22 Native Artisan booths who are technical experts in their chosen arts and crafts style artwork. We strive to have authentic, Indigenous handmade items that support Indigenous art and culture. Handcrafted items can include clothing, jewelry, art, and home goods.

Native FEWS Student Success: Reflections of the Native American Student Experience in the Nexus of Food, Energy, and Water Systems

EDUCATION AND STUDENT SUCCESS

Derrick Gonzales (*Tohono O'odham and Pascua Yaqui*)

Student

Tohono O'odham Community College

Patrick Naranjo (*Santa Clara Pueblo*)

Director, American Indian

Graduate Program

UC Berkeley

Daniel Sestiaga Jr. (*Ft. Yuma Quechan*)

Program Manager, Indigenous Resilience Center

University of Arizona

Dr. Vincent Whipple (*Lakota/Sioux and Dine/Navajo*)

Postdoctoral Research Associate, Indigenous Resilience Center

University of Arizona

The vision of the Native FEWS Alliance is to build a highly skilled Native American STEM workforce at the nexus of Food, Energy and Water Systems (FEWS) and to co-innovate and deploy Indigenous place-based FEWS education and community partnerships. Through intentional student engagement, the Alliance has developed pathways (K-20) for student success, research and career development. Student panelists representing Predominantly White Institutions, Hispanic Serving Institutions, and Tribal College and Universities (PWIs, HSIs and TCUs), will provide flash talks highlighting their area of academic research, experience, interests, and share opportunities for success. This interactive Q&A session will enhance the general knowledge and awareness of contemporary Native American/Indigenous FEWS challenges and inform academic and community engagement. Further, this panel will reinforce the importance of Native American mentorship, community engagement, and post secondary institutions developing efforts to recruit, retain, and matriculate students in academic programs related to Food, Energy, and Water.

Native Food, Energy, Water Systems Networking Reception

Join the Native FEWS Alliance in a networking reception to discuss the importance of Food, Energy, and Water Systems for Indigenous communities, opportunities in FEWS, and how to engage with the growing Native FEWS network.

Navigating the Data Jungle: Best Practices for Governance

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Kunal Lalwani

Data Engineer

Nordstrom

Data governance is essential for retailers to effectively manage and govern their vast amounts of data. This session will share insights and experiences on data governance best practices, including data policies, standards, processes, and strategies for ensuring data quality. Attendees will also learn about the challenges of implementing a data governance program and strategies for overcoming these challenges. This session is perfect for students and early career professionals involved in data management, analytics, or business intelligence in the retail industry. Join us to learn from the experts and take your data governance skills to the next level!

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Networking and professional career choices in the CIA

PROFESSIONAL & WORKFORCE DEVELOPMENT

Steven Ashlan (*Cherokee*)

Native American Outreach Program Manager
Central Intelligence Agency

Networking and professional career choices in the CIA. This session is to provide insight into the hiring process, the various career choices and the importance of mentorship and networking in the CIA.

Networking Suites

Attend the event that has become a favorite among all conference participants! This "buffet-style" networking event offers a series of concurrent receptions. Join conversations and meet others with common interests. This is an opportunity to meet the conference sponsors and exhibitors as well as other conference attendees in a fun and casual environment. Enjoy refreshments, conversation, and make important connections for the Career Fair! It is the perfect wrap-up for your first day. All suites are located in the Convention Center.

- Amazon - Room 202A
- American Chemical Society (Chemistry) - Room 202B
- Apple - Room 205
- Bechtel - Room 201B
- Boeing - Room 206A
- Chevron - Room East Bridge (outside 203)
- Department of Energy & Lawrence Livermore National Laboratory - Ballroom 100C
- Intel - Room 206B
- Johnson Scholarship Foundation - Room 201C
- National Security Agency - Room 201A
- U.S. Department of State - Room 203
- US Forest Service - Room 207
- U.S. National Science Foundation - Room 206D
- USDA Natural Resources Conservation Service - Room 202C
- Wells Fargo - Room 206C

Not Conflict Management but Building Success

PROFESSIONAL & WORKFORCE DEVELOPMENT

Nathaniel Todea (*Dine*)

Hydraulic Engineer
Bureau of Reclamation

Conflict will be explored and dealing with conflict will be the primary focus. Tools and resources will be examined to determine how one approaches conflict. Traditional cultural, traditional ecological knowledge (TEK) tools and resources will be integrated on how a native person may use those tools to deal with conflict. Participants will be engaged on how they use their TEK to work with others and move efforts forward. Western and eastern tools will also be discussed that allow a broad perspective from lessons learned.

On the path to leadership

COLLEGE & CAREER READINESS

Kaitlan Lyons (*Ojibwe/Anishnaabe*)

Engagement Officer
AISES

Student reps will host a session talking about their leadership journeys and how their lives shaped them to become leaders.

Opening Ceremony

Kick off the AISES National Conference with a welcome by the AISES Council of Elders and other inspirational speakers.

Opportunities with AISES for K-12!

EDUCATION AND STUDENT SUCCESS

Marie Casao (*Narragansett*)

Program Officer
AISES

Dr. Johnny Poolaw (*Delaware, Kiowa, Comanche, Chiricahua Apache*)

Director of Student Success
AISES

This session will give a broad overview of the AISES opportunities offered to K-12 students and teachers. Attendees will learn about programs that provide individualized robotics training for students and teachers, hands-on financial literacy activities, culturally-relevant engineering and computer science for high schools, our National Native American Science and Engineering Fair, our STEM-centered college and career readiness guide, and more! Each of these programs comes with special perks that we are excited to share. Join us if you want to learn more about AISES opportunities!

Pitching your Innovation

STEM & BUSINESS

Dr. Elizabeth Mirowski

Program Director
National Science Foundation

This session will present an overview of the National Science Foundations Seed Fund, a grantmaking program that provides funding to start-ups without taking any stake in your company. The fund encourages innovators across diverse scientific disciplines to submit proposals that explore new frontiers and challenge conventional knowledge boundaries. By providing critical seed funding, the NSF supports the people behind breakthrough discoveries and innovations that address complex societal challenges. In this interactive session, we will provide key insights on how to craft a compelling pitch for our program, so come prepared to share your idea and explore how to define the problem, present your unique solution, and highlight its potential benefits.

Poster Research Presentations Setup

Participants are expected to mount their posters on Friday between 8:00 a.m. and 9:00 a.m. in Riverside Lobby (outside the Exhibit Hall) of the Convention Center. Author(s) must be present at their poster during the judging period.

Pre-College Student Gathering

"Hey students! Here is your chance to get to know AISES better while also getting to know your peers in a fun, interactive environment! Let's kick off the AISES National Conference 2023 together and learn how to make the most out of your time here at the conference!"

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Agenda to include: ice-breaker activities, learning about our programs and scholarships, how to navigate the College and Career Fair, Resume Room, and more!

All middle and high schools students and their chaperones are invited!

Preparing for a Career the Health Professions: Why Applying to SHPEP Should Be Your First Step

HEALTH & MEDICAL SCIENCES

Antonio Mancuso

Communications and Outreach Sr. Specialist
Summer Health Professions Education Program

In an effort to increase diversity, the SHPEP National Program Office has established a national committee for SHPEP that will concentrate on two areas: (1) communications strategy; and (2) building program site capacity to be more inclusive of Native students. Through this collaborative effort, the SHPEP National Program Office aims to implement a communication strategy that leads increased representation Native students in the health professions. In my proposed session, I will discuss how SHPEP can strengthen the academic proficiency and career development of Native students in the health professions. This session will also address that a path into the health professions looks different for each student, the impact SHPEP had on their careers, and provide strategies for overcoming obstacles that challenge underrepresented students.

President's Reception (Invitation only)

The President's Reception is hosted by AISES President Sarah EchoHawk and is by invitation only. Expect refreshments and hors d'oeuvres, an opportunity to mingle with other members of the AISES family, and a short program presenting the Firekeepers Program. The Firekeepers program is designed to support the future of AISES. Learn more about becoming a Firekeeper at this reception.

Professional Chapter Council Meeting (PCC)

The Professional Chapters Council (PCC) consists of representatives of the AISES professional chapters whose goal is to provide guidance and representation for professional chapters, to advise AISES on issues important to professional chapters and members, and to increase opportunities for AISES professionals.

If you are interested in joining the Professional Chapter Council, contact Lisa Paz, Managing Director of Engagement and Advocacy at lpaz@aises.org.

The PCC supports AISES mission by:

- Meeting quarterly to support and represent the AISES professional chapters.
- Advising AISES on issues important to the professional chapters and members.
- Supporting the formation of additional professional chapters.
- Assisting professional chapters in fundraising ideas and programs.
- Serving as a liaison between professional chapters and AISES Headquarters.
- Assisting professional chapters to recruit new members and retain current members.

- Assisting professional chapters in providing professional development for members.
- Providing networking opportunities for professional chapters and members.
- Assisting professional chapters in their outreach to AISES students and student chapters.
- Reviewing professional chapter Affiliation Agreements and Professional By-laws and presenting any proposed changes to AISES Headquarters.
- Promoting communication between professional chapters.
- Having the PCC Chair represent the PCC at regularly scheduled AISES Board meetings.
- Providing input for the Professional Networking reception at the National Conference.

Professionals Networking Reception (Ticket purchase required)

This fun and interactive event welcomes professional and student members that are about to become professionals to network in a comfortable setting. Students will also be able to interact with Professional Chapter representatives and talk about professional membership. The event is intended for professionals and college students that will soon be entering the work force. Space is limited. Light hors d'oeuvres will be served.

Public Speaking for STEM Professionals

PROFESSIONAL & WORKFORCE DEVELOPMENT

Madison Habeck (*Cherokee Nation of Oklahoma*)

Career Support Program Officer
AISES

Students and professionals in all fields struggle with public speaking, but it doesn't have to be so intimidating. Infused with cultural awareness and humor, attendees will learn how to overcome a fear that impacts an estimated three-quarters of people and develop a critical skill that can be beneficial in a variety of situations. Recommended for introverts and extroverts, alike!

Pursuing Careers in Indigenous Design; How Tribal Cultures Can Impact Work in the A/E/C Industry

ART, ARCHITECTURE, AND DESIGN

Ryan Wielenga (*Pokagon Band of Potawatomi*)

Steelhead Engineering Company
President
Bodwé Professional Services Group / The Steelhead Engineering Company

J. Scott Winchester (*Pokagon Band of Potawatomi*)

Tribal Liaison and Senior Project Manager
Bodwé Professional Services Group / Seven Generations Architecture + Engineering

Steve Zimmerman (*Pokagon Band of Potawatomi*)

Director of Construction Services
Bodwé Professional Services Group / Seven Generations Architecture + Engineering

As a tribally-owned professional service group, the companies within Bodwé Group have collaborated with Native American

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communities nationwide on a variety of projects to foster, celebrate, and strengthen indigenous cultures. This session will provide insights on how individuals who come from Indigenous backgrounds can bring a unique perspective to a career within the design industry by sharing stories about our design experiences supporting tribal clients or on projects that specifically serve Indigenous communities. Our team of tribal citizens who work within our family of companies in different roles, demonstrating expertise in architecture, engineering, and construction respectively, will collectively share some of our processes and best practices obtained through our project experiences and will illustrate both by sharing a series of case studies that have shaped places and spaces for several tribes.

Radical Funding Solutions for Indigenous Women in Tech

EDUCATION AND STUDENT SUCCESS

April Christina Curley

Engagement and Partnerships Manager
Last Mile Education Fund

Though computing-related degrees represent the shortest pathway to a professional-level salary, indigenous women remain among the most underrepresented populations in tech, with only 104 receiving computing-related degrees in 2021. Further, over half who enroll leave before graduating. The Last Mile Fellowship for Indigenous Women in Tech aims to increase the number of graduates by 20% per year by investing in these students before they drop out, offering sustained funding, individualized support, and a community of peers. It affords students the opportunity to focus on their studies, graduate, and launch into careers sooner. Last Mile Education Fund is the only institutionally agnostic, nationwide safety-net fund for striving low-income students in STEM. Since 2020 Last Mile has invested \$191,000 via 161 grants to support persistence and degree completion among indigenous students. Come learn about Last Mile's funding and support opportunities for indigenous students in tech. Applicable to students, faculty & industry partners.

Reconnecting with Our Tribal Communities After College – Challenges & Rewards

PROFESSIONAL & WORKFORCE DEVELOPMENT

Don Motanic (*Confederated Tribes of Umatilla Indian Reservation and Coeur d'Alene Tribe*)

Tribal Forestry Consultant
Contractor

This session will include a return to the rez story, then small and large group activities discussing challenges and rewards about returning to our tribal communities after college. The opening 15-minute presentation will include an overview of the session, then a story about how an urban tribal member received their forestry degree then returned to live, work and serve his father's tribe and then his mother's reservation to live, work and serve the tribal communities. After the presentation, the participants will reflect about their life-long situation with their tribal communities and write down the challenges and rewards. The participants will be positioned into small groups to discuss the topics. After the small discussion, each group will report the general themes for a large group activity. The session will close with ideas and resources from the AISES networks and other resources that can be utilized to assist professional chapters and individuals.

Recreate an Indigenous Engineering Design Process through Fun Engineering Activities with Youth

ENGINEERING

Anne Hamlin

Professional Learning Associate
Northern Arizona University

Stephanie Jackson (*Diné*)

Professional Learning Coordinator
Northern Arizona University

We will experience bringing Indigenous ways of knowing into a paper and tape engineering challenge and then reflect on our approach to reconstruct an Indigenous engineering design process specific to each group and the unique tribal backgrounds. We will share examples of engineering in everyday lives and end by relating the engineering we are doing in our daily lives to engineering at NASA and how both are equally important in understanding our planet. The engineering activity from PLANETS, an out-of-school time curriculum for educators and youth in grades 3–8 that provides NASA STEM learning, particularly for underserved audiences using principles of diversity, equity, access, and inclusion. Our conversation in this workshop will inform and contribute to the development of PLANETS as it continues work to make this national curriculum more culturally responsive for Indigenous youth, one of three intended audiences along with emergent multilingual learners and youth experiencing physical disabilities.

Re-evaluating How To Study with Active Learning Strategies

COLLEGE & CAREER READINESS

Regan Mukpik (*Sitka Tribe of Alaska*)

Student
San Diego State University

This presentation aims to get students to re-evaluate how they study and expose them to active learning strategies. First, students will be exposed to the difference between memorizing and understanding new topics and the definition of active learning strategies. Along with this, participants will be shown why changing their study habits is essential as they continue their academic pursuits. Then, students will be given examples of new study habits and methods they can use or try. Overall, participants will be able to re-think their study strategies and consider an active learning strategy or study habit to take with them the next time they study.

Renewable Energy is Our Superpower

ENGINEERING

John Lewis (*Gila River Indian Community*)

Energy Consultant
AES/Avant

Tanya Martinez (*Mi'kmaq First Nation/Puerto Rican*)

Senior Director of Development
AES Clean Energy

Jayne Sandoval (*Navajo*)

Associate Developer
AES Clean Energy

Justin Succo (*Navajo*)

Associate Developer
AES Clean Energy

What would you like to know about energy? Are you thinking about a career in renewable energy or would like to know more about the industry? Bring your inspiring thoughts, questions, and ideas to this panel of Indigenous energy experts and individuals embarking on their renewable energy career. The panel will discuss the industry, share their perspective on unique opportunities for renewable energy on Tribal lands and you, the participants, will facilitate where

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the discussion on energy goes. Let's chat about energy and how you can make an impact on your Nation's energy future!

Resilience Strategies to Stay on the Path to Becoming a Physician

HEALTH & MEDICAL SCIENCES

Dr. Jonathan Baines (*Tlingit/Tsimshian*)
MD/PhD
Mayo Clinic

Dr. Eric Leveille (*Sault Ste Marie Tribe of Chippewa Indians*)
Resident physician
Mayo Clinic

Native Americans experience significant health disparities. One reason is an inadequate number of Native physicians. There are 4,000 Native physicians nationwide representing 0.5% of all physicians, yet are 3% of the population. To reach parity we need 24,000 Native physicians, not 4,000. This session we will cover resilience strategies for those premed through residency. We share two stories, common challenges and ways to handle them, including dealing with identity, approaches to failure, dealing with expectations, handling imposter syndrome, building your reserve, managing the hidden curriculum and microaggressions. Jonathan Baines, MD/PhD (Tlingit/Tsimshian) is a family physician at the Mayo Clinic. He is on the MD and MD/PhD admissions committees and medical director for Mayo's Native American Pathway Programs. Dr. Eric Leveille, MD/MPH (Sault Ste Marie Tribe of Chippewa) is a current Family Medicine resident at Mayo and brings recent experiences going from premed to medical school and residency.

Resonating Challenges and Strategies in Approaching DEI spaces in Higher Education

EDUCATION AND STUDENT SUCCESS

Alvin Harvey (*Navajo Nation*)
PhD Candidate
Massachusetts Institute of Technology

Nicole McGaa (*Oglala Lakota*)
Senior Undergraduate
Massachusetts Institute of Technology

Indigenous students at higher educational institutions face systemic challenges in asserting Indigenous sovereignty, and are often burdened to provide extensive labor and consultation in order to develop positive relationships of support and service. Incremental or performative actions taken by DEI and administrative offices in higher education often miss true reconciliation and healing. The difficulties behind these missed opportunities take many forms but resonate in their tendencies, reflecting the socio-political climate of the institution; obstacles are occasionally unintentional, leading to further difficulty in driving change. In this session, Indigenous student leaders from MIT share their personal experiences and lessons learned in advocating for change, as well as the strategic approaches which have led to success in these westernized DEI spaces - showing ultimately, how the practice of Indigenous relational-based protocol and ceremony during these conversations and negotiations unravels barriers, cultivates spaces of healing and understanding, and grounds movement forward.

Resume Room

The Resume Room will be available to students on Thursday and Friday. Come fine-tune your resume and upload it to the AISES resume database (Career Hub) as well as distribute it at the AISES College and Career Fair. The room is equipped with computers, printers and staffed with professional volunteers to answer questions about resume development.

Rising Waters: Assessing Flooding Impact on Communities through Remote Sensing

GEOSCIENCES

Sami Chen (*Cherokee*)
Graduate Student
Stanford University

Dr. Eric Larour
Group Supervisor for the Sea Level and Ice Group
NASA Jet Propulsion Laboratory

Shawn Ray (*Navajo/Diné*)
Student
Oklahoma State University

Nizhoni Sutter (*Navajo Nation (Diné)*)
Student
University of Washington School of Medicine

Climate change drives many challenges, including sea-level rise and flooding. This workshop is for Indigenous STEM students interested in expanding their research toolkits by approaching these challenges through remote sensing. In this interactive workshop, we share Earth Science remote sensing tutorials: (1) land and water observations from space, (2) processing space observations, and (3) making flooding maps and assessing corresponding impacts on communities. We will guide students to model sea-level flooding projections in Jupyter Notebooks. Students will predict flooding days per year at specified locations in Washington State by establishing exceedance flooding threshold levels and mapping future flood events. This workshop will incorporate datasets from various sources, including tidal gauges and remote sensing sources (i.e., Lidar surveys and Sentinel-1). Students will also learn about educational opportunities, including NASA internships and postdocs, to further develop these skills.

Sequoyah Fellows Breakfast & Ceremony (RSVP required)

The Sequoyah Fellows Breakfast & Ceremony is an event honoring AISES Lifetime Members, their guests, and to welcome new Sequoyah Fellows. A Sequoyah Fellow membership and registration is required to attend. Saturday, October 21 - Check-in between 6:30 a.m. and 7:00 a.m. and the Program runs from 7:00 a.m. - 9:15 a.m. Interested in becoming a member or gifting a membership? Stop by the AISES membership booth.

Skill setting in the Next Digital Age

PROFESSIONAL & WORKFORCE DEVELOPMENT

Kurby Hodges
Sr. Manager, Strategic Partnerships and Conferences
Northrop Grumman

The age of advanced computing and predictive/generative AI present myriad opportunities to deliver the best innovations. How can we ensure professionals are well prepared for the next digital age where the pace of technology development will occur at warp speed? Northrop Grumman executives will discuss the digital transformation of the company and its products, and how employees are empowered to utilize their talents and in-demand skillsets to forge what's possible in our ever-evolving digital age.

State of AISES by President (Invitation only)

Join AISES President, Sarah EchoHawk, as she gives quality insights of the "State of the Organization" address.

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STEM Activities Day

STEM ACTIVITIES DAY

This fun, interactive day of activities will include hands-on STEM-themed ideas and challenges. Start your AISES National Conference off right with a full afternoon of STEM activities and information. This event includes chances to win great prizes! STEM Activities Day will feature a Marketplace where middle school and high school students and educators can learn more about AISES PK-12 opportunities! Food and beverages will be provided.

9:00 a.m. - 11:30 a.m. Badge Pickup at Registration Desk

12:00 p.m. - 12:20 p.m. Orientation – The Boeing Company

12:30 p.m. - 1:30 p.m. Session Block One

1:30 p.m. - 1:45 p.m. BREAK (go to next activity)

1:45 p.m. - 2:45 p.m. Session Block Two

2:45 p.m. - 3:00 p.m. BREAK (go to next activity)

3:00 p.m. - 4:00 p.m. Session Block Three

Activities

Have fun with ACS while learning about Chemistry through Experiments

(presented by American Chemical Society)

Discover the Secret Science of Self-Inflating Balloons - Use special cards and atomic tokens to discover the secret science of self-inflating balloons. Then hear and feel the chemicals react as your own balloon inflates.

"Alexa....Teach me how to Program"

(presented by Amazon)

This workshop will provide an overview of programming, using the Alexa device as a model. Students will get hands on instruction and guidance to program an Alexa skill.

Blue Origin's Recycling Wastewater in Space - Water Filtration Activity

(presented by Blue Origin)

Welcome future space explorers! Blue Origin was founded with a vision of millions of people living and working in space for the benefit of Earth. Our new lunar water mining camp has been given the go-ahead! Teams of designers and engineers are working around the clock to make this vision a reality. Blue Origin has given your team the task of designing a water treatment system that will be used to reclaim wastewater created by people living and working in space.

Here's what you must do: First, your team will create a custom turbidity tester to collect water clarity data.

Next, you will build a filtration device for removing undissolved solids from a wastewater sample.

Finally, you will determine the level of turbidity of your filtered water.

Blue Origin will provide all the supplies your team will need. Good luck! ""Gradatim Ferociter"" (step by step, ferociously)"

Bristlebots on the Moon

(presented by Raytheon Technologies)

Curious about robots; want to build your own? Create your very own vibrating BristleBot then join us as we experiment with different leg shapes and designs to see how efficiently your Bot can cross the moon.

Make your mark:

Design a personal logo and draw it with Sphero Bolt (presented by Nā Hunaahi)

Join me to design your personal logo using your personal, familial, and community histories and identities. Use your logo to leave your mark on our world. Once you have your design set, paint your personal logo life-sized using Sphero. Learn to code by using Sphero and block coding to draw your personal logo.

Exploring topographic maps with an augmented reality (AR)

sandbox (presented by U.S. Geological Survey) This hands-on STEM Day session for students will introduce the concepts of topography, topographic maps, lidar, and Landsat technology. Students will have the opportunity to build their own topographic map model, explore an augmented reality (AR) sandbox, and use Landsat imagery to investigate changes on the Earth over time.

Cybersecurity, Codebreaking, and Reverse Engineering with NSA

(presented by NSA) STEM professionals from the National Security Agency will present hands-on activities on cybersecurity, codebreaking, and reverse engineering.

Acids and Bases (presented by U.S. Department of Energy Office of Legacy Management) What are Acids and Bases? Did you know they are all around us and important to many chemical processes? An acid is something that tastes sour (like a lemon) and tends to dissolve things. A base is something that feels slippery (like soap) and will neutralize an acid. The mission of the U.S. Department of Energy Office of Legacy Management (LM) is to ensure the protection of human health and the environment at sites that once played a role in the Manhattan Project and the Cold War. At these sites, LM scientists conduct many studies, including measuring potential hydrogen (pH) in groundwater to determine its acidity. LM will provide a pack of litmus paper test strips to each participant so they can be a scientist to test the PH levels of various commonly used liquids.

Slingshot Car

(presented by General Motors)

The slingshot car is an excellent introductory project to illustrate how potential energy is converted into kinetic energy, and the importance of low friction. Students will build a car that will be propelled across the floor at least 10 feet by a simple slingshot. The students will use basic materials like craft sticks, tape, straws, and skewers to build their vehicle. Students will learn about wheel alignment and energy transformation as they come to build a "car" that will go straight for at least 10 feet.

Architecture, Engineering, and Construction Design – Reimagining STEM Classrooms for Indigenous Students

(presented by Bodwé Professional Services Group) As both tribal citizens and professionals within the architecture, engineering, and construction industry, Scott, Steve, and Ryan will guide participants in a design charrette activity to show how both interest in STEM fields and familiarity with and a passion for elevating Indigenous culture can come together to inform facility design. We will ask participants to help us create a design for a new STEM classroom that serves students who attend an Indigenous educational institution. As a tribally owned professional services group, we collaborate with our clients every day to help build consensus around the design of the projects we complete. This activity will show how this process takes place, how each sector within A/E/C participates, and how cultural considerations of both the client and the design team members can help strengthen the overall design of places and spaces to best serve each respective client and community."

Bluebird Math Circle

(presented by Alliance of Indigenous Math Circles) Mathematics is not just about numbers! It is games. It is puzzles. It is about connecting our Native culture and arts to the beauty of mathematics. Come play fun math activities through intriguing problems and games. Become a math superhero and impress your friends. Join us to learn how cool math is.

Indigenous Watercraft and Design Challenge

(presented by University of Saskatchewan) In this session, you will learn about ancestral Indigenous Engineering Design of watercrafts - how our Indigenous ancestors optimized design of watercraft to perform

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specific functions and how these designs are still used to this day. Using concepts of engineering design with various office materials, you will design your own table-top watercraft to be "floated" against other teams in a design challenge!

Air Force Academy - HoloLens 2.0 STEM (presented by United States Air Force Academy) Activity Knowing the popularity of the existing virtual reality headsets for gamers, USAFA developed software for the HoloLens to assist with academic instruction at the Academy. The technological advantages of the HoloLens over virtual reality include the see-through headset and the authenticity of the images, while maintaining computer capabilities. The Chemistry Department and STEM Outreach worked with GigXR to develop software for the HoloLens to help Cadets observe and understand fundamental chemistry concepts including titrations, gas behavior, nuclear chemistry, and kinetics. The HoloLens alone is a new exciting way to teach and learn, coupled with the created software USAFA is beginning to see the power of mixed reality as a learning and teaching tool. We desire to showcase this as a STEM activity to demonstrate how we incorporate technology into our STEM academic programs and our demonstration will allow students to experience various academic lessons in virtual reality.

Imagine yourself as a USGS Hydrologic Technician on the Spokane River! (presented by US Geological Survey - Washington Water Science Center) Students will learn how to gather and evaluate information about all things water related. The student will virtually work with an USGS Hydrologic Technicians (Hydro-techs) ADCP boat operator taking water measurements. The data from the boat will be transmitted onto a laptop alongside video footage of the data collection on the river. With this context, the student will take pH, turbidity, conductivity, temperature, water flow and surface water level measurements in a plastic reservoir and then review, describe, and discuss their data. We will have a 3D model of Mt. Rainier to compare with a 2D USGS topographical map of the same area. What happens to the data? USGS will show them how the data is being used by local governments like tribes. USGS wants to show case to the STEM participants, what USGS does when we take surface water measurements and how the data is being used.

Flappy - The Flapping Wing Blimp Robot (presented by George Mason University) Flappy is a lighter-than-air robotic agent that uses flapping wings to fly. The best designs are found in nature, which is the foundation for biomimicry. Traditional blimps use propellers to move, but no animal is known to display such mechanisms, due to biological and evolutionary restrictions. There are insect and bird inspired flapping wing robots, but Flappy takes inspiration from one of nature's most efficient swimmers, the manta ray. The current design for Flappy is two circle commercial balloons filled with helium, 3 servo motors (2 for wings, 1 for tail), microcontroller, battery, carbon fiber rods, and wires. Flappy's simple components provide a modular design system as the balloons can be orientated differently, combining additional balloons to provide greater lift for more components, and interchanging wings of different shape can affect flight performance. In terms of power efficiency, Flappy flies longer compared to its propeller counterpart using a same battery.

Safe Stopping Robot (presented by The Boeing Company) Engineer a robot that turns itself off when it leaves a safe area. Students will build a robot made from everyday materials that will stop itself when it moves to the edge of the foil. Watch the video of the activity and materials supplied by Boeing. <https://www.curiositymachine.org/challenges/109/>

AISES Marketplace: AISES PK-12 Opportunities Come visit with the AISES staff to learn about the AISES PK-12 opportunities.

Build Your Own Mars Helicopter (presented by NASA) NASA is sending a helicopter to Mars! This helicopter is called Ingenuity and is designed to test whether or not flight is a good way to study distant bodies in space. We have sent spacecraft to other planets, but this is the first aircraft that will fly on another world. In this activity, you will learn about this amazing feat of engineering as you build your own Mars helicopter model.

STEM and Leadership Careers in the Forest Service

PROFESSIONAL & WORKFORCE DEVELOPMENT

William Carromero Marcano
National Recruiter and Talent Acquisition Manager
Business Operations, National Forest System, Forest Service

Susan Johnson (*Mandan, Hidatsa, Arikara Nation*)
Tribal Projects Coordinator - National Forest System
USDA Forest Service

Tina Terrell
Senior Executive
Business Operations, National Forest System, Forest Service

James Wacker
Research Engineer
Wood Products Laboratory, USDA Forest Service

The Forest Service panelists will discuss their careers, experiences, and highlights as natural resource professional in the Forest Service. The panel includes a Research Engineer (native), a Senior Executive for Business Operations in Recruitment and Talent Acquisition, a former National Botanist and current recruiter, and a Forest Supervisor. Susan Johnson, Tribal Projects Coordinator, will facilitate the panel.

STEM Opportunities at the U.S. Department of State

STEM & BUSINESS

Denver Herren

Diplomat in Residence Rocky Mountains
US Department of State

We're America's leading foreign affairs agency that works to shape and sustain a peaceful, prosperous, just, and democratic world and fosters conditions for stability and progress for the benefit of the American people and people everywhere. Our employees contribute to strengthening American diplomacy and use their knowledge and experience in everything from architecture to engineering and technology to medicine to achieve success as they serve with integrity and professionalism. Contribute your different perspectives, life experiences, and innovative thinking to support and advance U.S. interests worldwide. Visit careers.state.gov to learn more.

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STEM@NSA

PROFESSIONAL & WORKFORCE DEVELOPMENT

Nathan BrownEagle (*Gila River Indian Community Akimel O'odham*)

Cybersecurity Analyst
NSA

Come hear about the diverse STEM educational and career journeys of members and allies of the National Security Agency's American Indian Alaska Native (AIAN) Employee Resource Group (ERG). Additionally, AIAN ERG members who are recent college graduates will share their experiences advocating for themselves in the workplace while taking the first steps of their STEM careers.

Still Here - Still Serving: Honoring Indigenous Culture in Today's Intelligence Community Landscape

COLLEGE & CAREER READINESS

Belinda Gnansounou

Senior Task Manager
U.S. Intelligence Community (U.S. IC) / Office of the Director of National Intelligence (ODNI)

The Intelligence Community (IC) is a federation of executive branch agencies and organizations that work together to conduct intelligence activities to protect the national security of the United States. The United States has a robust history of relying on indigenous peoples in developing intelligence and continues to do so. This panel will offer a glimpse into the personal stories of Native American members of the IC and how they came to be in their roles. Panelist will share their influences on their personal choices, traditions, culture and how they represent them in the IC.

Storytelling with Gore Medical

HEALTH & MEDICAL SCIENCES

Stephanie Dann (*Navajo and Hopi*)

Quality Manufacturing Support Specialist
W.L. Gore & Associates

Lydia Edgewater (*Navajo*)

Scientist
W.L. Gore & Associates

Sterling Garner (*Navajo*)

Technical Support Specialist
W.L. Gore & Associates

Aaron Watson (*Navajo*)

Process Engineer
W.L. Gore & Associates

Immerse yourself in an hour of storytelling with members of the Native American and Indigenous People of America Network at Gore, a materials science company dedicated to improving industries and improving lives. You'll travel through the product life cycle from idea to commercialization through stories of their roles and contributions to Gore's Medical Products Division. W. L. Gore & Associate, Inc. began in a family home 65 years ago, and we continue building on our founders' dreams of improving lives through innovation as our 13,000-plus Associates continue their legacy. Today, more than 55 million innovative Gore Medical Devices have been implanted, saving and improving the quality of lives worldwide. Come hear how this meaningful work gives purpose to our lives as Gore Associates and inspires us to create solutions that make a difference in the lives of others.

Storytelling with The Elders

INDIGENOUS KNOWLEDGE

Antoinelle Benally Thompson (*Navajo*)

Council of Elders
AISES

Dr. Bret R. Benally Thompson (*White Earth Band of Ojibwe*)

Council of Elders
AISES

Rose Darden (*Ute*)

Council of Elders
AISES

Steve Darden (*Navajo, Cheyenne, Swedish*)

Council of Elders
AISES

Norbert Hill, Jr. (*Oneida*)

AISES Council of Elders
AISES

Phil Lane, Jr. (*Yankton Dakota and Chickasaw*)

Council of Elders
AISES

Cecelia Lucero (*Acoma Pueblo*)

Council of Elders
AISES

Dr. Artley M. Skenandore (*Oneida Nation*)

Council of Elders
AISES

Faith Spotted Eagle

(*Ihanktonwan Band of the Dakota/Nakota/Lakota Nation of South Dakota*)

Council of Elders
AISES

Come sit and relax with the AISES Council of Elders as they take turns sharing stories told with love, humor, and traditional knowledge. The importance of storytelling has always been woven into our lives – as much a part of our future as our past. Join them to enjoy stories that have the power to heal, teach, and prepare future generations.

Student Awards Luncheon

This event honors the incredible STEM talent at AISES from scholarship awardees to interns, as well as the exemplary chapters who power, connect, and elevate the AISES mission. All student research presenters should attend the luncheon as research award winners will be announced. Registration required.

Student Hackathon with Dinner

COLLEGE, HIGH SCHOOL

Strategize, discover, build your tech skills, and network! During this mini-hackathon for undergraduate and graduate students, participants will work with industry professionals on a software project. Show your talent; test your limits; and have fun meeting interesting people while putting your best efforts forward. There will also be lots of food, drinks, and prizes! Space is limited so hurry and register now!

Student Orientation

The Boeing Company is the proud sponsor of the student orientation and welcomes all students to come and learn what to expect at the AISES National Conference, as well as, what is expected of you. Learn how to make the most of your experience at this year's conference!

Student Social - DJ and Dance

This fun filled social event will include networking, entertainment, dancing, and snacks!

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Student Study Lounge

Students, do you need a quiet, comfortable place to unwind? The Student Study Lounge is an area open to students for gathering, studying and relaxing between sessions. All students are invited to use this room to work effectively without interruption, relieve any tension or stress on your mind, and focus on your study in peaceful manner. WiFi is provided.

Support Food Systems and Improve the Environment with a Career at the Natural Resources Conservation Service

BIOLOGICAL SCIENCES

Catherine Cannon

Tribal District Conservationist
USDA Natural Resources
Conservation Service

Rick Tafoya

National Program Manager
USDA Natural Resources
Conservation Service

Population growth and climate change is increasing the challenge to create and maintain accessible and resilient food systems that are also ecologically-sound. Minority and low-income populations are disproportionately affected by a lack of both affordable nutritious food and culturally appropriate foods, leading to an increase in health risks such as heart disease and Type II diabetes. Our mission at the USDA Natural Resources Conservation Service (NRCS) is "helping people help the land". A rewarding career with NRCS puts you at the forefront of directly helping people tackle these challenges through hands-on technical and financial assistance programs. This session will explore what we do, the multitude of biological and engineering career paths available, the educational requirements to qualify, and internship opportunities available to help you get started helping people help the land. For an example of some of the work we do visit <https://youtu.be/6lyGtPlIYC0>.

Telling Indigenous Stories through Video Games

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Gillian Vaughn (*Cherokee Nation*)

Software Engineer
Microsoft

Indigenous at Xbox is excited to host this session about Indigenous story telling through gaming! There are a seemingly endless array of Indigenous stories told in various cultures across the globe. But how do you pass on these rich and meaningful stories to younger audiences, who are accessing information in new and exciting ways? Video games are becoming a medium for telling our stories and making our way of life more accessible to everyone. From creation stories to the story of the three sisters and stories we tell around the fire, Indigenous people have so many oral stories we can make into art! In this session we will dive into one story that has been illustrated and made into a short video game and learn about the technology that goes behind it. Come brainstorm what story you can share through gaming! Learn about how Indigenous storytelling and computer science meet.

The Art of Storytelling

COMMUNICATIONS AND MARKETING BRANDING

Jennifer McKeogh

Senior Manager - Diversity, Equity, and Inclusion Communications
General Motors

This session will focus on the art of storytelling and how to craft your personal story to create meaningful impact and emotional connection. Participants will gain an understanding of writing style, learn tips to connect to their audience and discover how to focus their story.

The Future of AI and Indigenous People

COMPUTER AND INFORMATION SCIENCE ENGINEERING

Mark Hunter (*Choctaw*)

Managing Director
Accenture

Marty Rogers (*Eastern Band Cherokee*)

Senior Managing Director
Accenture

As AI continues to advance and permeate various aspects of our lives, it is essential to examine its implications for indigenous peoples, considering our unique cultural, social, and economic contexts. This Accenture panel will explore the opportunities, challenges, and potential risks associated with the integration of AI technologies. By doing so, we aim to foster a better understanding of how AI can be harnessed to benefit indigenous people while respecting our rights, traditions, and sovereignty. Discussion Points: (1) Economic Empowerment: What opportunities does AI present for indigenous communities in terms of sustainable economic development, job creation, and entrepreneurship? (2) Ethical Considerations: How can we ensure that AI development and implementation respect indigenous rights, privacy, and self-determination? (3) Bridging the Digital Divide: How can AI technologies be utilized to bridge the digital gap for indigenous communities and ensure equal access to information and resources?

The Positives of Failure; How Failing Can Lead to Success

COLLEGE & CAREER READINESS

Dr. A.D. Cropper (*Kalinago Carib*)

Engineering Fellow
Raytheon Technologies

Susanna Packauskas-Lewalski

Systems Engineer
Raytheon Technologies

FAILURE IS NOT AN OPTION! How often do we hear or even say this in our society; but is it really true? Mistakes can lead to success; learning from failure can lead to better outcomes. Do you know that WD-40 got its name because it was the 40th attempt at the formula or that synthetic dye was invented as the failed result of research for a synthetic version of the malaria drug quinine? What about those beautiful OLED Displays on all sorts of Phones, Computers and Displays; did you know it was a failed experiment that resulted in its invention? If the Leaning Tower of Pisa didn't lean, would you know it existed? Join us for a presentation and hands on activity as we explore what are the benefits to failing and why failure may not only be an option but also may sometimes be the best option.

Session Descriptions

#AISESNC23

The Value of Mentorship Relationships - The AISES Full Circle Mentorship Program

COLLEGE & CAREER READINESS

Dr. Johnny Poolaw (*Delaware, Kiowa, Comanche, Chiricahua Apache*)

Director of Student Success
AISES

As Indigenous people, we consider our relationships to be a key cultural value to us. Mentorship relationships are very special in that these unique bonds have proven very valuable to the success of STEM students. Join us for this insightful session to learn how AISES helps foster and create these mentor/mentee connections through our Full Circle Mentorship Program and how you can be a part of this program as a student or a mentor.

Tour - Albeni Falls Dam

COLLEGE, HIGH SCHOOL, PROFESSIONAL

The tour of Albeni Falls Dam will include an overview of the project and its primary mission areas (Hydropower, Flood Risk Reduction, Fish and Wildlife, and Recreation) – including visits to the powerhouse and spillway. While on-site, discussion topics will include current efforts to construct a fish passage facility as well as a cultural resource working group which includes four regional tribes as participants. Special instructions or requirements for the attendees of the tour: Name on conference registration needs to match government ID, which is required. Closed toed shoes and hair secured above shoulders is required for safety. Wear long pants. Pre-conference registration required.

Agenda

- 1:30 p.m. Depart Spokane Convention Center
- 2:45 p.m. Arrive Albeni Falls Dam
- 3:00 p.m. Welcome and Overview
- 3:15 p.m. Walking tour of dam – powerhouse and spillway
- 4:00 p.m. Fish Passage and FCRPS Program
- 4:45 p.m. Depart Albeni Falls Dam
- 6:00 p.m. Arrive at Spokane Convention Center

Tour - Amazon Fulfillment Center - GEG1

COLLEGE, HIGH SCHOOL

Tour participants will get a full tour of GEG1- an Amazon Robotics Sortable Fulfillment Center. You will get to see the process from inbound to outbound, along with Amazon Robotics technology. Special instructions or requirements for the attendees of the tour: Name on conference registration need to match government id, which is required. Closed toed shoes and hair secured above shoulders is required for safety. No cell phones allowed in the building. Pickup/Meeting Location – Southside of Spokane Convention Center in the turnout near breezeway.

Agenda

- 1:30 p.m. Load Bus at Spokane Convention Center
- 1:45 p.m. Depart Spokane Convention Center
- 2:00 p.m. Arrive at GEG1, Amazon Rep to check in with site participants. Break into groups of 15
- 2:15 p.m. Tours start
- 4:15 p.m. Tours end

4:20 p.m. Load Bus and depart GEG1

4:45 p.m. Arrive back at Spokane Convention Center

Tour - Eastern Washington University Campus

COLLEGE, HIGH SCHOOL

Please join us for a tour of Eastern Washington University's campus in Cheney, WA – just a 30-minute drive from Spokane. EWU offers hands-on degree programs in Biology, Geosciences, Chemistry, Physics, Mechanical Engineering, Electrical Engineering, Computer Science, Cybersecurity, and Visual Communication Design. In this visit, you will tour classroom buildings, student services, popular student locations, and some of our science and engineering labs. In addition to the campus tour, we will offer focused STEM-related activities led by our faculty and students.

Pickup/Meeting Location – Southside of Spokane Convention Center in the turnout near breezeway

Agenda

- 1:30 p.m. Depart Spokane Convention Center
- 2:00 p.m. Arrive Eastern Washington University
- 2:10 p.m. Welcome and Overview
- 2:30 p.m. Campus Tour and STEM Activities
- 5:00 p.m. Depart Eastern Washington University for return to Spokane Convention Center
- 5:30 p.m. Arrive Spokane Convention Center

Tour - Gonzaga University

COLLEGE, HIGH SCHOOL

Attendees will walk along the beautiful Spokane River to Gonzaga University's campus (one mile walk). There will be lunch and a campus tour, including a look at the new Bollier Center for Integrated Science & Engineering. Admissions information to Gonzaga's undergraduate programs will be shared. The Office of Tribal Relations will share unique supports for Native American students at Gonzaga. Programs of note include: School of Engineering and Applied Science, School of Nursing and Human Physiology.

Special instructions:: Wear comfortable shoes it will be a walking tour.

Pickup/Meeting Location – Southside of Spokane Convention Center in the turnout near breezeway

Agenda

- 12:30 p.m. Depart Spokane Convention Center and walk to Gonzaga's campus along the beautiful Spokane River via the centennial trail. This is a 1-mile walk, one-way.
- 1:00 p.m. Lunch at Gonzaga University
- 1:30 p.m. University presentation. Topics include Gonzaga's undergraduate admissions process, academic programs, student life, and support for Native students at Gonzaga.
- 2:00 p.m. Campus Tour
- 2:30 p.m. Reflection Activity with Gonzaga University Professor Dr. Juilane Mora
- 4:00 p.m. Tour of the Bollier Center for Integrated Science & Engineering with a faculty from School of Engineering and Applied Science
- 4:30 p.m. Conclude and walk back to Convention Center
- 5:00 p.m. Arrive at Convention Center

Session Descriptions

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Tour - University of Washington

The UW School of Medicine (UWSOM) program covers a five-state region including Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) for medical education created with a mission to increase Medical Doctors and other health care professionals to serve rural under-served populations, including Indigenous (American Indian & Alaska Native) peoples and communities. The UWSOM and Gonzaga University (GU) formed the UWSOM/GU Health Partnership to foster our commitment to developing a representative workforce to serve local communities. Medical students in Spokane will spend their first 18 months of medical school on Gonzaga's campus. The medical school tour will cover the new medical school building, anatomy lab (no cadavers visualized) and an overview by the Dean, conversations with educators, Indigenous students, resident physicians, and cover the MD program, the UWSOM's Indigenous Health programs, and the physician assistant and dentistry programs. Moreover, the student will learn about ecosystem programs available to help them prepare for a successful health career. Parents are welcome.

Pickup/Meeting Location – Southside of Spokane Convention Center in the turnout near breezeway

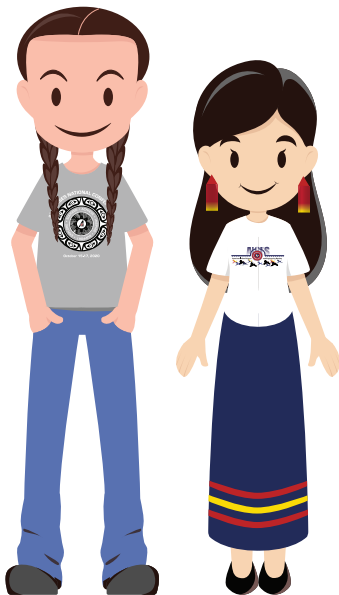
Special instructions:: Wear comfortable shoes it will be a walking tour.

Agenda

- 1:30 p.m. Depart Spokane Convention Center
- 2:00 p.m. Arrive UWSOM Gonzaga University Health Partnership
- 2:05 p.m. Welcome and Overview – Dr. Darryl Potyk
- 2:15 p.m. Indigenous Medical, Dental & other Health Field Representatives
- 2:30 p.m. Medical School Tour
- 3:30 p.m. UWSOM Center for Indigenous Health & Indian Health Pathway Programs
- 4:00 p.m. Questions and Answers
- 4:30 p.m. Depart UWSOM Gonzaga University Health Partnership
- 5:30 p.m. Arrive Spokane Convention Center

Traditional Native Social Powwow

Rock your Mocs and join us for what has become our most popular tradition - the AISES Powwow! Open to all!



Tribal Brownfields: Tools, Opportunities, and Case Studies

ENGINEERING

Ray Doering (*Coquille Indian Tribe*)

Director of Public Affairs & Compliance
Tribal One

Ann Lewis (*Confederated Tribes of Siletz Indians*)

Chief Executive Officer
Siletz Tribal Business Corporation

Margaret Olson

Environmental Engineer
US Environmental Protection Agency

Graeme Taylor

Project Manager
Stantec Consulting Services Inc.

Join us to learn about some exciting Tribal brownfield programs in the Pacific Northwest and beyond. A panel-style discussion moderated by Graeme Taylor of Stantec, the EPA will be presenting an overview of federal grant opportunities available to Tribes and will share their perspective on several successful Oregon Tribal brownfield programs. The Confederated Tribes of the Siletz Indians will present their nascent brownfield program for the former Toledo Mill property on the Yaquina River to reimagine the industrial land as an opportunity for resiliency and conservation. Finally, the Coquille Indian Tribe is transitioning a waterfront brownfield in North Bend, Oregon to reconnect with an important cultural resource, enhance sustainability and resiliency, and build economic prosperity for their community. We will discuss the science, technology, engineering and math behind environmental site assessment and cleanup and will discuss funding opportunities for Tribes to develop brownfield programs across the country.

Tribal Nations Advisory Council Meeting (TNAC)

The TNAC of AISES consists of representatives from Tribal Nations in the United States and Canada. The primary role of the TNAC is to advise AISES on issues of relevance and importance to Tribal Nations. In addition, the TNAC also works to assist AISES in creating opportunities for Tribal Nations and their citizens, and to support the AISES mission of substantially increasing the representation of Indigenous Peoples of North America in science, technology, engineering, and math.

If you are interested in joining the Tribal Nations Advisory Council, please contact Alicia Mitchell, Associate Director of Tribal and Government Relations, at amitchell@aises.org.

TNAC activities include:

- Advises AISES on issues important to tribal AISES chapters and their members.
- Participates in and supports AISES events through sponsorships, presentations, and providing career information and resources.
- Assists in the formation and development of Tribal AISES Chapters.
- Encourages PK-12 Tribal educator and student participation in AISES programming.
- Provides scholarships, internship programs, and/or employment opportunities.
- Provides expertise and guidance related to current/projected employment trends and needs in Tribal communities.

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- Develops tribal support for AISES including financial contributions, in-kind gifts, and human resources.
- Assists AISES in fundraising efforts through networking and participation.
- Serves as a liaison between Tribal Nations and AISES.
- Provides networking opportunities for tribal AISES chapters and members.
- Serves as an advocate to publicize content in Winds of Change magazine and on the AISES website to represent Tribal Nations.
- Represents the TNAC at regularly scheduled AISES Board meetings by sending at least one co-chair.
- Provides input to AISES National Conference proceedings to increase relevance for Tribal Nations.
- Promotes, assists, and supports AISES in hosting a gathering of Tribal Nations' representatives at the AISES National Conference and other Native-focused events.

U.S. Department of Energy: The American Indigenous Experience

PROFESSIONAL & WORKFORCE DEVELOPMENT

Stephanie Bostwick (*Amskapi Pikuni-Blackfeet Nation*)

Tribal College and University (TCU) Coordinator

U.S. Department of Energy Office of Indian Energy Policy and Programs

Jill Conrad (*Nez Perce*)

Tribal Affairs Manager
Office of Environmental Management, (EM)

Raymond Redcorn (*Osage Nation*)

Policy Analyst

U.S. Department of Energy (DOE)

Dr. Caleb Woodall

Program Manager

U.S. Department of Energy

This session will share the experiences of Native Americans from the Department of Energy (DOE) who joined to support its mission of addressing the nation's energy, environmental, and nuclear challenges through transformative science and technology solutions. Their career paths and contributions to DOE now present new opportunities to Indigenous communities, colleges, and universities. The DOE and its National Labs employ more than 14,000 people, presenting more than 14,000 different stories. Learn how to prepare yourself to begin your own DOE experience.

U.S. National College Student Caucus

AISES College students are invited to attend this caucus to vote on their next U.S. Junior National Student Representative. There is also the chance to meet their Regional Student Representative and hear what is important for AISES College Student members to know. This is a college student event, and while professional members and corporate partners are welcome to attend as observers, they are not eligible to vote and do not have presenting privileges.

Understanding Bias and Applying an Equity Lens to Data Collection and Analysis

HEALTH & MEDICAL SCIENCES

Chelsea Powell

Strategy & Analytics Manager

Deloitte

Significant health and economic disparities exist across many dimensions, including race, gender, age, location, disability status, and sexual orientation. Data-driven research can improve our understanding of these disparities and identify actions to advance equity for all. However, data can also have unintended consequences and mislead, misrepresent, or harm communities that already experience inequity and discrimination. In this panel discussion, we'll discuss how to apply an equity lens and ground data collection, analysis, visualization, and communication in empathy. Learn how a thoughtful approach to data can help reduce bias and produce more equitable and inclusive results.

Veterans' Gathering

This session is for Veterans who seek to address their specific issues as they seek guidance/ assistance in either their path to STEM education or finding opportunities in STEM upon completion of their service obligation. It is also for our partners who wish to support and hire skilled, brave and honorable individuals who have served our country.

Volunteers Check-in Desk

All volunteers are required to check-in at the volunteer desk 15 minutes before your volunteer shift begins.

We R Native: Multimedia Resources for Native Youth, By Native Youth

HEALTH & MEDICAL SCIENCES

Dr. Stephanie Craig Rushing

Adolescent Health Principal

Investigator

Northwest Portland Area Indian

Health Board

Jane Manthei

SMS Communications Specialist

Northwest Portland Area Indian

Health Board

We R Native (www.WeRNative.org) is a multimedia health resource designed for Native youth, by Native youth. In this session we'll share three free resources to help you follow your dreams. Text HEALER to 94449 and we'll connect you with your new personal coach, Christina. She will share resources, tips, and ideas to help you navigate becoming a healer. Text INSPIRE to 94449 to hear diverse Indigenous voices, and the pathways you can take to work in public health. People who work in public health are community protectors. Text STEM to 94449 to get connected to Native professionals who work in STEM fields. Our goal is to elevate and re-affirm Native voices in science, technology, engineering, and math.

We believe in you and are here to support you in your journey. Your voice, energy, and interest in healing can help our communities grow, thrive and flourish!

Wellness Activity - FBI: Flexibility/ Balance/Inspiration

The Federal Bureau of Investigation To Host a Mind/Body/Spirit Wellness Session - Please join us for us for an interactive and

Session Descriptions

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introspective wellness session on Friday, October 20, from 7:00-9:00 a.m. in Ballroom 100C. Participants will be gently guided through a progressive muscle relaxation exercise. FBI staff will also share several mindfulness techniques focusing on the brain-body connection. Learn more the about where these techniques come from and why they are believed to be an effective means of self-regulation and stress management. Additionally, Bureau personnel from FBI Headquarters, FBI Seattle, and FBI Salt Lake City will be on-hand to provide information about the agency's efforts to promote the mental and physical well-being of our workforce and bolster employee productivity, time management, and efficiency. Following the interactive portion of the session, participants will be able to connect with FBI agents, analysts, and professional staff.

What do Hydrologic Technicians do at USGS?

GEOSCIENCES

Chaska Boucher (*Hopi / Navajo*)

Hydrologic Technician

US Geological Survey - Washington

Water Science Center - NW

Washington Field Office

Edyth Hermosillo

Hydrologist

US Geological Survey - Washington

Water Science Center

Amber Thulean

Hydrologic Technician

US Geological Survey - Washington

Water Science Center - Upper

Columbia Field Office

The three USGS Hydrologic Technicians (Hydro-techs) are at different career levels who have Bachelor of Science degrees in a physical science or attending college. The USGS is the lead Science Bureau of the Department of the Interior where we monitor, analyze data, and conduct targeted science research so that policy makers and the public have the understanding they need to enhance preparedness, response, and resilience. Before any study, we need the Hydro-Techs to collect data and these individuals have made a career in collecting water data. Through short presentations followed by an interactive panel including questions from the audience, they will highlight the extraordinary science being led by USGS scientists and in collaboration with Tribes across the country, showcase the breadth of science the USGS provides, and offer a window into what it is like to work for the USGS including the unique challenges women and minorities scientists face.

What is an environmental science career? And how can Science Societies help you get there?

BIOLOGICAL SCIENCES

Dr. Kathy DeerInWater

(*Cherokee Nation of Oklahoma*)

Vice President of Programs and Research

AISES

Teresa Mourad

Director of Education and Diversity Programs

Ecological Society of America

Ashley Mueller (*Dine*)

Education Coordinator

Native American Fish and Wildlife Society

Jessie Ribera

Program Coordinator

Ecological Society of America

Elynn Owens

DEI and Grants Program Manager

Entomological Society of America

Sky Wildcat (*Cherokee and Mvskoke*)

Research and Career Support

Senior Program Officer

AISES

Would you like to learn more about what careers an environmental science degree can lead to? In this workshop, learn about the range of talents and skills sought after by employers in academia, government, industry, and nonprofits in a broad environmental field at all scales and levels. And learn about the different programs, scholarships, and funding opportunities that are available to help you propel your environmental science career forward! Careers in environmental science include: agriculture, sustainability, plants, wildlife, soils, insects, energy, or water. Often, opportunities are couched in technical jargon that may draw only those familiar with those specific areas. Join experts from three different environmental science societies, as they run through how to search for opportunities, how to translate your skills, and what opportunities they have for you! Come away with enhanced skills for job/internship searches in new sectors, and ideas to stand out as a candidate.

Women's Talking Circle

Circles provide space to open up fresh possibilities for connections, collaboration and understanding. Circles can hold the tensions and emotions that contribute to healing and can support people to use the collective energy to take action. It is an opportunity to express your conference experience with complete freedom. It is an effective way to remove barriers and feel the support and energy of all other participants during this intimate gathering. Women are welcome to join the circle and to strengthen the feeling of community through storytelling and togetherness.

Xbox Microsoft Play Room

COMPUTER AND INFORMATION SCIENCE ENGINEERING, ENGINEERING

Xbox is hosting an Xbox Play Room at the 2023 AISES National Conference to connect Xbox talent, Indigenous at Microsoft/Xbox members, and content from Xbox Game Camp with conference attendees in an informal setting. The Xbox consoles will feature Indigenous game content and respectful Indigenous representation in gaming. Attendees will have the opportunity to engage with Xbox and Microsoft in a casual, playful way while exploring STEAM careers. Attendees will be able to engage with Xbox and Microsoft talent to explore gaming careers, tech careers, and sustainability careers as well as create networking or mentoring connections. Join us for an engaging experience and to meet some very special guests throughout the day!