# Commencement

## SPRING SEMESTER 2023



## **COLLEGE OF EARTH AND MINERAL SCIENCES**

Saturday, May 6, 2023 Pegula Ice Arena 1:00 p.m.





#### National Anthem

by Francis Scott Key

O say, can you see, by the dawn's early light, What so proudly we hailed at the twilight's last gleaming; Whose broad stripes and bright stars, thro' the perilous fight, O'er the ramparts we watched, were so gallantly streaming? And the rockets' red glare, the bombs bursting in air Gave proof thro' the night that our flag was still there. O say, does that Star-Spangled Banner yet wave O'er the land of the free and the home of the brave!

## Alma Mater

by Fred Lewis Pattee

For the glory of old State, For her founders, strong and great, For the future that we wait, Raise the song, raise the song,

Sing our love and loyalty, Sing our hopes that, bright and free, Rest, O Mother dear, with thee. All with thee, all with thee.

When we stood at childhood's gate, Shapeless in the hands of fate, Thou didst mold us, dear old State, Dear old State, dear old State.

May no act of ours bring shame To one heart that loves thy name, May our lives but swell thy fame, Dear old State, dear old State!



# COMMENCEMENT

Spring 2023 Baccalaureate Degrees

## **COMMENCEMENT PROGRAM**

#### ACADEMIC PROCESSIONAL

Performed by Centre Brass

#### NATIONAL ANTHEM

Led by Piper Weldon The audience is asked to join in the singing.

#### PRESIDING

Justin Schwartz, B.S., Ph.D. Executive Vice President and Provost, The Pennsylvania State University

#### **COMMENCEMENT ADDRESS**

Susan Avery, B.S., M.S., Ph.D. Professor Emerita, University of Colorado President Emerita, Woods Hole Oceanographic Institution

#### **AUTHORIZATION TO CONFER DEGREES**

Randall "Randy" E. Black, B.S., M.B.A Member, Board of Trustees

#### **RECOGNITION OF MERITORIOUS ACHIEVEMENT**

Dean Lee Kump John Leone Dean in the College of Earth and Mineral Sciences

#### **RECOGNITION OF DEPARTMENT MARSHALS**

Yvette Richardson, B.S., M.S., Ph.D. Associate Dean for Undergraduate Education

#### **CONFERRAL OF DEGREES**

Justin Schwartz, B.S., Ph.D. Executive Vice President and Provost, The Pennsylvania State University

#### INDUCTION INTO ALUMNI ASSOCIATION

Scott Billingsley, B.S. Graduates of Earth and Mineral Sciences (GEMS) President

#### PENN STATE ALMA MATER

Led by Piper Weldon The audience is asked to join in the singing.

#### RECESSIONAL

Performed by Centre Brass The audience will please remain seated.

#### UNIVERSITY NOMENCLATOR

E. Alan Cameron, B.S.A., M.S., Ph.D., B.C.E. Professor Emeritus

## MARSHALS

#### **UNIVERSITY MARSHAL**

R. Allen Kimel, B.S., M.S., Ph.D. Associate Teaching Professor of Materials Science and Engineering

#### **COLLEGE MARSHAL**

Martha Lisbeth Christino, Meteorology and Atmospheric Science Faculty Marshal: George Young, B.S., M.S., Ph.D. Professor Emeritus of Meteorology

#### **ENGINEERING HONOR MARSHAL**

Bevan Neil Harbinson, Materials Science and Engineering Assistant Faculty Marshal: Robert Hickey, B.S., Ph.D. Associate Professor of Materials Science and Engineering

#### **DEPARTMENT MARSHALS**

Mallori Bingaman, Energy and Mineral Engineering Isabella Marie Culver, Geography Anna Ju-Young Lee, Geosciences Lucas Michael Erich, Materials Science and Engineering Gabrielle Olson, Meteorology and Atmospheric Science

#### **GEMS DIAMOND AWARD RECIPIENT**

Athbi Alfarhan, Petroleum and Natural Gas Engineering

#### GEMS DIAMOND AWARD HONORABLE MENTION

Luke Winand, Meteorology and Atmospheric Science

### **COLLEGE LEADERSHIP**

Lee Kump, A.B., Ph.D. John Leone Dean in the College of Earth and Mineral Sciences Zuleima Karpyn, B.S., M.S., Ph.D.

Associate Dean for Graduate Education and Research

Yvette Richardson, B.S., M.S., Ph.D. Associate Dean for Undergraduate Education

Victoria Sanchez, B.A., M.A., Ph.D. Associate Dean for Educational Equity

Ann Taylor, B.A., M.A., Ph.D Assistant Dean for Distance Education

## Message from the Dean

Congratulations, Class of 2023!

You've earned a degree from one of the most challenging programs at Penn State. Along the way you experienced the joy of discovery, the stress of deadlines and examinations, and the satisfaction of a job well done. You learned how to think critically and write clearly, how to gather, present and analyze data, and how to effectively communicate your conclusions and their impact to a diverse audience. We, the faculty and staff of the College of Earth and Mineral Sciences, along with the students you've gotten to know, both undergraduate and graduate, couldn't be prouder of you and your accomplishments. I know we share that pride with your family and friends who have provided you support through your time at Penn State.



We have emerged from a global pandemic to the bright future we know awaits you. The faculty

have worked to provide you an education that gives you both the broadly applicable skills and the depth of understanding of your chosen discipline that you'll need to navigate both smooth and choppy waters ahead. And you've honed those talents, developing a strong sense of resiliency that will serve you well in life.

Use your skills and knowledge to find a rewarding career and to do good for society. And continue to lean on us for support. You are joining one of the most supportive alumni networks in the world: you are now a GEMS, a Graduate of Earth and Mineral Sciences, and the GEMS alumni organization will be there when you need them. So, enjoy your graduation day, stay safe and healthy, and stay in touch.

Vamp

Lee Kump, John Leone Dean in the College of Earth and Mineral Sciences



## **Commencement Speaker**

Susan Avery, president emerita of the Woods Hole Oceanographic Institution, will deliver the commencement address for the College of Earth and Mineral Sciences' 2023 baccalaureate degree commencement ceremony.

Avery served as president of the Woods Hole Oceanographic Institution (WHOI) from 2008 to 2015. Before joining WHOI she served on the faculty at the University of Colorado, Boulder, from 1982 to 2008.

Avery has been active in congressional outreach, including testimony and briefings; in U.S. and international consortia dedicated to ocean research, observation and applications; and worked with the governor's committee to develop the Massachusetts Green Economy plan.

Avery currently serves on the Exxon Mobil Corporation board of directors, the board of the American Institute of Physics, the board of the Rocky Mountain Biological Laboratory and on the advisory committee for the Lawrence Berkeley National Laboratory.

Avery's research interests include studies of atmospheric circulation and precipitation, climate variability and water resources, and the development of new radar techniques and instruments for remote sensing. She recently completed two terms as a member and chair of the board of trustees of the University Corporation for Atmospheric Research.

Avery is a fellow of the American Association for the Advancement of Science, American Meteorological Society, for which she also served as president, and Institute of Electrical and Electronics Engineers.

Avery earned her bachelor of science degree in physics from Michigan State University and a master of science degree in physics and doctorate in atmospheric sciences from the University of Illinois.

## **Baccalaureate Degree Recipients**

#### **PROGRAM NOTES**

Scholastic Distinction: Subject to completion of all degree requirements and satisfaction of minimum criteria, distinction may be conferred as indicated upon the individuals listed herein and upon such others as may meet the requirements. Distinction is conferred on graduates who have completed the required number of credits at the University and who are in the top 12 percent of their graduating class in their colleges. The 12 percent is divided into: 2 percent, Summa Cum Laude (minimum 3.97 GPA, Blue and White Honor Cord); 4 percent, Magna Cum Laude (minimum 3.89 GPA, Blue Honor Cord); 6 percent, Cum Laude (minimum 3.79 GPA, White Honor Cord). Distinction is based on cumulative GPA at the end of the fall 2022 semester and is noted with the following symbols: +++ = Summa Cum Laude, ++ = Magna Cum Laude, + = Cum Laude.

Schreyer Scholars: The Schreyer Honors College selects students who exhibit the promise of fulfilling academic excellence with integrity, building a global perspective, and pursuing civic engagement and leadership. To graduate with honors, Schreyer Scholars must maintain a record of good academic standing, complete 35 credits of honors courses, and submit a thesis. Students graduating with honors are noted with the following symbol: §.

EMSAGE Laureates: The Earth and Mineral Sciences Academy for Global Experience (EMSAGE) Laureates are graduates recognized for outstanding achievements through a well-rounded undergraduate experience including scholarship, experiential learning and global literacy, personal and professional integrity, service to the college and the community, and leadership. Students graduating as an EMSAGE Laureate are noted with the following symbol: <sup>‡</sup>.

Military Commission: Students who have satisfactorily completed the advanced course in military, naval, or air science may be granted commissions upon graduation. Military and air science graduates are commissioned as second lieutenants; naval science graduates may be commissioned as ensigns in the Navy or second lieutenants in the Marine Corps. Students graduating with a military commission are noted with the following symbol:  $\Diamond$ .

#### **Bachelor of Arts**

#### Geography

Isabella Marie Culver+ Emily Jane Hauryski Allison Anne Holland‡

#### Geosciences

Hannah Grace Hayes

#### **Bachelor of Science**

#### **Earth Science and Policy**

Joshua David Karas Maya Rose Kita Anna Ju-Young Lee++ Hannah Lynn Luckenbaugh Kacper Orpik Angelina Santamaria§‡ Riley Nicole Wian

#### **Earth Sciences**

Matthew Christie Jarem Cortez Emma J. Cox Bradly David Crouthamel+ Dominic John Grasso Jiahao Guo+ Kathleen E. McGowan Isabella R. Plotkin Garrett Reed Deanna Richards Easton Richard Rinfrette

## Energy and Sustainability Policy

Mallori Bingaman+++ Candace L. Emanuel Deborah Joanne Kimball Melissa Lopez Morgan Alexa Miller Kayla Lynn Peate Jeremy Schieber◊ Robert Eric Sikora

#### **Energy Business and Finance**

Diaraye Bah Scott Beckman William Joseph Berta Maddison Brant **Brendan Carothers** Kayla Ann Gregory Grant Holcomb Stanley Oghenekaro Igbudu Afolabi Isiaka Jacob Orion Johnson Jacob Parker Lang Flannery Hope Larson Nathan Scott Leach Sihan Liu++§ William Bowditch Massie Brett Miller Alyssa T. Nguyen

Nayana R. Pandey+§ Patrick Brennan Rother Joshua Michael Rowe Michael Swope Zhihan Wang+‡ Chaohan Yan Taimur Zain Andrew Zanaras

#### **Energy Engineering**

Katherine Irene Bowser Mufaddal Gheewala‡ Vedanthi Santrupth Gowdgere Ramakrishna Kvra Alisha Green Taggert Raidy Hudson Andrew John Iaia Erika Alise Lenhart Logan James Mackes Akhdan Ilyas Mir‡ John A. Mylant Duc Phu Hoang Nguyen Shakur Rahamani Michael Gregory Rovnak Alexander Charles Salter Nicholas Shultz Andrew Sullivan Chang Yan

#### Environmental Systems Engineering

Huseen Alkseemy Ryan Joseph Bechman Henry O'Ryan Chapman+ Hannah Marie Chop§‡ Lara Gisela Colmenter Mitchell Corsi Jackson Sawyer Griffiths Callie Marie Habovick **Riley Nicole Herndon** Gabriel Christopher Hiestand+§‡ Hunter Lynn Hirneisen **Richard Bong Jeong** Joseph Bernard Kurincak+ Andrew Massimo Marini Jaeden Mayzel‡ Ethan Anthony McLeod

Fatmah Yousef Mohammad Ryan Patrick Nelligan Meredith Ellen Pepka++‡ Cash Platz Katherine Rasmussen‡ Emily Virginia Salvatore Claire Elizabeth Souder++ Sourav Sripathi Christian Stoudt

#### Geobiology

Sarah Davis+ Eathan Riley Gottshall+ Travis John Krivitski

#### Geography

Cormac James Caughey Chenmiaomiao Han Benjamin Russell Maus Jiheng Miao Olivia Rose Neill Camila Alexandra Pena Brugal‡ Evan Lambros Polyak Gregory Michael Roszyk Jr. Angelina Santamaria§‡ Faiz Waiguchu Jordan Daniel Young

#### Geosciences

Asala Al-Wadhahi Renan Lynne Beckman Jin Uk Choi Robert Austin Hull+ Ethan Lawrence Lionetti Madeline Rose Murtaugh+ Alexander Alexandrovich Nikitin Victoria Hart Paul Sarah Perez Madalyn Bodnar Reed Hunter Emory Reeves<sup>‡</sup> James Aaron Regensburger Frank Emanuel Santini Sunday Honor Siomades+§‡ Megan A. Vinella Kenneth Frank Wasiulewski Katerina Wood

#### Materials Science and Engineering

Aidan Thomas Adkins Manal Rashdan A. Almutairi Michael Ammendola++‡ Sierra Rose Astle§ Brian Alexander Chou Chun Chou Anthony Thomas Diaz Shane Donaher++§ Lucas Michael Erich+++‡ Jacob Paul Feldbauer Bevan Neil Harbinson+++§ Krista Hauseman+ Yasi Huang Aarushi Jadhav§‡ Lindsay Frances Jones++§ Mingyo Jung Patrick Gordon Kirsch Robert Charles Koennecker Matthew Austin Kunes++ Mackenzie Lane Jaeho Lee Yu Chieh Lin Haiming Lu Timothy Pickarski++§ Kyra Ann Pond **Conner Andrew Popo** Ayunni Maisarah Binti Rosminuddin Meddelin Setiawan++‡ Zachary R. Strasbaugh Chrislynn Gono Suah Alana Blaise Sweeney Ryan Sweny Melissa Tapia Michael William Thomas++§ Zachary James Trdinich+§ Kathryn von Abo+ Wan Ahmad Naufal Bin Wan Mansor Justin Warner+‡ Nathaniel Edward Warren+ Matthew Joseph Weisenberger Cheng-Yin Wu+ Shaojie Xu+ Jun Weng Yeo<sup>‡</sup> Abdul Hadi Bin Yusri+ **Tianming Zhao** Ross W. Zofcin

#### Meteorology and Atmospheric Science

Kevin Abbot Kevin William Appleby Katelyn Elizabeth Bahr **Cameron Barker** Patrick Baumann Katrina M. Becker Selina Bolella Chaunce Troy Cartledge Jr. **Caroline Castora** Joseph Vincenzo Cavalieri Martha Lisbeth Christino+++§ **Cameron James Chuss** Delián Colón Burgos ‡ Dora Ryan Courtney David Alexander Cruz Kyle J. Eck Matthew Stephen Eovino Kevin Joseph Fletcher Connor M. Freidhoff Carter Greulich Cade Harrison Groman **Catherine Jane Gross** Jacob Daniel Hair+++ Jared Andrew Hardies Yuan-Chih Hsieh++ Michael Andrew Jablonski Andrew Jacob Janosky Isabelle Kathleen Jernigan+‡ Nicholas Joseph Johnson Kaitlin Marie Kitch+ Christian S. Lehman David Patrick Marcial+++§‡ Patrick Joseph McFarland+++ Alisha Nicole Mendez Brian Robert Michigan Lillian Amelia Swanson Muller++ Eric Joseph Myskowski++§ Anthony Nargi Zoltan M. Nemeth Gabrielle Olson+++§ Dana N. Osgood Sarah Nicole Potts Elizabeth H. Rader Mvah Ann Rather Jesse Richard James Rutt Christopher Slough+++

Sarah Stengel Evan Daniel Sullivan Domenic Taylor Douglas Thomas Toth Kyle Evan Watson Luke Winand<sup>‡</sup> Mitchell Patrick Zotter

#### **Mining Engineering**

Darby Gray Adams Evan Antonacci Daniel Buonanno Mark A. Hovingh++ Noah King

#### Petroleum and Natural Gas Engineering

Rahaf Ahmed A. Abaoud++ Hamzah Nader A. Abushullaih Clavton M. Adams Hannah Chidinma Adighije Abdulilah Mazen Al Dahlawi Ali Ahmed N. Al Hassan+++‡ Noorah Abdullah A. Al Mulhim+++§ Zaid Mohammed I. Al Sowayigh Nawaf Khalid S. Alamri Mohammed Ali A. Alamri Mohammed Fahad K. AlAgeel Mohammed Nabil M. Alarfaj+++‡ Saud Samer S. AlAshgar+ Husain Alattar Mansour Nasser M. Albqami+ Abdulrahman Mubarak A. Aldossary++ Abdulaziz Saad A. Alfaadhel Yazeed Saeed S. Alghamdi Amr Ahmed F. AlGhamdi Amr Adel M. Alghamdi Yazeed Mohammad S. Alghamdi Hind Majed Alghuwainem+ Bandar Alhajeri Anas Muslih O. Alharbi Sultan Abdulkareem M. Alharbi Abdulkarim Nassir A. Alhayaf Bassam Salman I. Alhazzani+ Raneem Riadh B. Alhezemy++ Nader Ibrahim F. Aljarbou Sari Mohammed A. AlJohani Sultan Yahya S. Aljuhani

Jamal Abdullah A. Alkhawfi++ Ahmed Nasser A. Alkhrisi Muhammad Ahmed A. AlManie Faisal Fahad A. Almnea Abdullah Adel M. Almoaibed Mohammed Hesham A. Almusaiid Mohammed Almuwaine Abdullah Mohammed A. Alomair Abdulaziz Yousef A. Alomran Salman Mohammed A. Alosaimi Nawaf Tarig M. Alotaibi Saleh Ghazi H. Alotaibi Abdullah Saud S. Alotaibi+ Khalid Saad Algahtani++ Faisal Saeed Algahtani Ammar Yasir B. Algattan+ Fahed Faisal Alguraini Saif Abdulrahman S. Alsaadoon Hossam Ali M. Alsaeed Mohammed Obaid A. Alshaibani+ Abdulrahman Mohammad A. Alshammari+ Majid Hamoud A. Alshammari Faisal Motlak A. Alshammary Heesah Abdulmohsen F. Alshihab++ Ibrahim Abdulmohsen I. Alshokr+ Sharefah Abdulrahman A. Alsultan+ Hamad Fahad S. Alsunaid Abdulaziz Nawaf Y. Altowaireb+++ Eyad Ahmed M. Alzahrani++ Kelly Renae Arnetto Mohammad Saeed A. Badghaish<sup>‡</sup> Muhanad Adnan M. Bazaid Carter A. Brandes Logan James Chorba Amr Alaeddin A. Dajani Caleb James Ei Tristin C. Findlay Evan Gutherman Nour Mowaffaq A. Haneef+ Agyeman Rhys John Jacob Anthony Macinanti Matthew Munoz Caden Michael Myers Mohammed Umais Pakkar Linzee Pichler Jordan Nicole Thibodeaux<sup>‡</sup> Chia Hsin Yang Asadbek Zakirov

## Additional Participants

Students who requested to be listed by March 24, 2023, and who have 8 or fewer credits to complete their degree programs are listed below or completed degree requirements in fall 2022.

#### **Bachelor of Arts**

#### Geography

Samuel Smyth Fisher

#### **Bachelor of Science**

#### **Earth Science and Policy**

Courtney Nicole Aubain Riley Scott Boag

#### **Earth Sciences**

Daniel Guzman

## Energy and Sustainability Policy

Valeria Vasquez

#### **Energy Business and Finance**

Noah James Clickett

#### **Energy Engineering**

Sol Ferrari Ty Vaughn

#### Environmental Systems Engineering

Abdulhameed Abdulhussain

#### Geography

Christopher Scott Turnbull **Geosciences** 

Halina Dingo Riley M. Paul-Cook

#### Reed Plunkett Caroline Claire Spengler Frank E. Yetnick

#### Materials Science and Engineering

Luke B. Stocker

#### Petroleum and Natural Gas Engineering

Kareem John Tinsley Jr.

Note: The information in this document was produced March 16, 2023, as an unofficial list of students who indicated intent to graduate for the spring 2023 semester. Students who indicated their intent to graduate after that date are not listed. Subject to completion of all degree requirements, degrees will be conferred as indicated upon the individuals listed herein and upon such others as may meet the requirements.

If you have a question about your name, degree or distinction listed in this program, please reach out to Heather Kimble, hmo106@psu.edu

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U.Ed. EMS 23-68.



## WELCOME TO THE PRIDE!

**Congratulations** on your graduation, and welcome to the Penn State Alumni Association —the largest and most powerful alumni network in the world.

New graduates receive a **complimentary one-year membership** in the Penn State Alumni Association. As you enter the pride, you'll join the ranks of alumni who keep their connection to Penn State strong through membership. We encourage you to stay connected and learn more about the 30+ benefits that are included with your membership

> Membership materials, including your membership card, will be mailed to you after graduation. Benefits are available to you immediately upon receiving your membership card.

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To access a full list of membership benefits and to find your local Penn State Alumni Association chapter, visit: alumni.psu.edu/newalumni

