## Commencement SPRING SEMESTER 2022



### COLLEGE OF EARTH AND MINERAL SCIENCES

Saturday, May 7, 2022 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 2022 Baccalaureate Degrees

#### COMMENCEMENT PROGRAM

#### ACADEMIC PROCESSIONAL

Performed by Centre Brass

#### NATIONAL ANTHEM

Led by Katrina Cole The audience is asked to join in the singing.

#### PRESIDING

Eric J. Barron, B.S., M.S., Ph.D. President of The Pennsylvania State University

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

#### **COMMENCEMENT ADDRESS**

Eric J. Barron, B.S., M.S., Ph.D. President, The Pennsylvania State University

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

Anthony P. Lubrano, B.S. Member, Board of Trustees

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

Dean Lee Kump

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

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

#### **CONFERRAL OF DEGREES**

Eric J. Barron, B.S., M.S., Ph.D. President, The Pennsylvania State University

#### INDUCTION INTO ALUMNI ASSOCIATION

Scott Billingsley, B.S. GEMS President-Elect

#### PENN STATE ALMA MATER

Led by Katrina Cole 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**

Camila Van Oost Environmental Systems Engineering

Faculty Marshal: Ljubisa R. Radovic, B.S., Ph.D. Professor of Energy and Mineral Engineering

#### SCIENCE HONOR MARSHAL

Catherine May Kohlman Meteorology and Atmospheric Science

Assistant Faculty Marshal: Raymond G. Najjar, B.E., Ph.D. Professor of Oceanography

#### **DEPARTMENT MARSHALS**

Mohammed Essa S. ALNoaimi Energy and Mineral Engineering

> Jacqueline McKeon Geography

Edward Joseph Spagnuolo Geosciences

Luke Sepich Materials Science and Engineering

Alex Alvin Cheung Meteorology and Atmospheric Science

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

Imani Murray Materials Science and Engineering

#### 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 2022! 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 are, I hope, emerging from the darkness of 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.

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



#### **Commencement Speaker**

President Eric J. Barron was named the 18th President of Penn State by the University's Board of Trustees on February 17, 2014. He returned to Penn State from the helm at Florida State, bringing with him nearly 35 years of leadership experience in academic administration, education, research, and public service, and a track record as a talented manager of fiscal policy within large and complex institutions.

President Barron spent 20 years of his career at Penn State, serving as dean of the College of Earth and Mineral Sciences from 2002 to 2006, and as founding director of the Earth System Science Center, one of the first major initiatives focused on the total study of Earth as a system, from 1986 to 2002. He also had

a simultaneous appointment as director of the Earth and Mineral Sciences Environment Institute from 1998 to 2002. In 1999, he was named Distinguished Professor of Geosciences at Penn State.

An accomplished scientist with a long background in atmospheric research, President Barron served as director of the National Center for Atmospheric Research from 2008 to 2010 and as dean of the Jackson School of Geosciences at the University of Texas at Austin from 2006 to 2008. Early in his career he was a postdoctoral research fellow and scientist at the National Center for Atmospheric Research in Boulder, Colorado, a federal research center focusing on atmospheric and related science issues. He originally worked at NCAR as a postdoctoral fellow from 1981 to 1985, and served for one year on the faculty at the University of Miami before joining Penn State.

President Barron earned his bachelor's degree in geology from Florida State University in 1973, his master's and doctoral degrees in oceanography, in 1976 and 1980, respectively, from the University of Miami.

## **Baccalaureate Degree Recipients**

#### **PROGRAM NOTES**

Scholastic Distinction: 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 (Blue and White Honor Cord); 4 percent, Magna Cum Laude (Blue Honor Cord); 6 percent, Cum Laude (White Honor Cord). Distinction is based on cumulative GPA at the end of the fall 2021 semester and is noted with the symbols: +++ for Summa Cum Laude; ++ for Magna Cum Laude; and + for 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. Schreyer Scholars must maintain a record of good academic standing, complete 35 credits of honors courses, and submit a thesis. Schreyer Scholars are noted with the 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 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 symbol:  $\Diamond$ .

#### **Bachelor of Arts**

## Energy and Sustainability Policy

Scott Ernest Famous II

#### Geography

Ishaan P. Anavkar+++§ Jazmyn Olivia Clark Nelson Robert Huffaker+§ Jacqueline McKeon+++ Kelly Alexa Porter

#### Geosciences

Joseph Larock

#### **Bachelor of Science**

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

Amanda Bassett Olivia A. Budnovitch Zachary Robert Kelly Caroline Newman Allysa Nicole Temple+ Morgan Vonada

#### **Earth Sciences**

Mitchell D. Miller Connor Parrish Russell Samuel N. Williamson

## Energy and Sustainability Policy

Gregory John DiRubbo Michael James Hanson Carolyn Marie Heckman Mona Lisa Hill ◊ Lindsey N. Klein++ Rachael Pauline Near Joshua Joseph Pangelinan

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

Jennifer Lindsay Cali Cree Coccodrilli Jacob Cusatis Paul D. DeNaples Andrew G. Dixon Christopher James Durso Carl Gerland++ Tianqi Han Maxwell Ian Hopko Jessica A. Jeanty Joshua W. Kiser Tyler Michael Lawrence Joseph Michael Picozzi Daniel Joseph Spontak Alexandra Turner Qiren Xie

#### **Energy Engineering**

Saeed Nasser Saeed Salem Alshamsi Jerrod Anthony Gabriel Andres Ariza Marrero Brent Daniel Beck+ Bimal Bhattarai Jared J. Bisceglia Jared L. Brown Andrew Kenneth Brown ‡ Joseph Dominic Centobene III Cindy Choi Samuel Miller Davis Moha Desai Kevan Robert Downs Andrew Case Elderhorst Sammy Davis Entabi Paige Gallotta Annan Gan Alexis Gogola Leo S. Hampel Tyler David Heglas+ Wesley Adam Hughes Matthew Keeton Yungu Lee Xitao Liu++ **Chad Thomas Loftus** Lianna Olivia Male Ian McCov **Alexander James Myers** Tristan Ryan Abigail Renee Schutzman **Timothy James Soberano Ryan Stough Brian Swift** Maximilian Klaus Watson

#### Environmental Systems Engineering

Ryan Joseph Bechman **Robert Cecchetti** Ziyan Chen Isabella G. Colacioppo **Riley Connors** Elizabeth A. Czekaj Sarah Sabina Derbyshire Chuyang Hao Ryan J. Kovacs+ Jenna Lopez Acxell Gabriel Marmol Jack T. Prince Sirui Pu++§ Shreya J. Ramesh+§ Nina Lillian Schappell+ Sourav Sripathi

Camila Van Oost+++‡ Huiwen Xie Yichen Yue

#### Geobiology

Edward Joseph Spagnuolo++§ ‡

#### Geography

Thomas Vincent Allen John J. Balzano 🕅 Benjamin Emerson Bulkeley Claire Byrnes § Mya Hagans Nathan Andrew Kessler Benjamin Alexander Kumka Ryan Jacob Kurtz Alainna Jayne Nevling James Niemiec Hannah Perrelli Noah Rogers Lucas A. Sottolano **Guinevere Mary Stone** Yixuan Sun Ziwen Tan Hope Maria Thatcher Madelyn Verno Zheming Zhang

#### Geosciences

Abdulaziz Khalid A. Almansour Cameron Maurice Brown Raquel Ellis Ryan Orlowski Aimee Zimmerman

## Materials Science and Engineering

Reem Abduljaleel M. Alalwan++§ Eric Delany Andrewlavage Benjamin Aronson++§ Leonardo Batista Capaverde Silva+++§<sup>‡</sup> Victoria Lourdes Belka § Zachary Michael Boring++ Margaret Kathleen Brown++§ Madeline Stavriana Cannon Erin Chacos

Roujia Chang++ Benjamin Joseph Dixon Scott Ennis Lucianne V. Ferraro Svdni L. Fritts Rongkun Gao++ Amanda Gregg+§ James Morley Hanagan++§ Josie R. Hoover Zihan Huang+ Jonathan Lee Hunt Devon Chance Kleeblatt+§ Jason Theodore Knapp Pete E. Lauer+++§ Matthew Levens Alivia Martelliti Kelly Elizabeth Matuszewski++§‡ Katelyn McCreery Melinda Michelle Mckeehan Christine Marie Midea Alexis Miller ‡ John Aaron Morreale Imani Murrav Elias G. Papadopoulos William Silas Roberson Anthony Paul Romero+§<sup>‡</sup> Emilv Rowan+ Domenic John Rullo Luke Sepich+++ Matthew T. Shaw Chrislvnn Gono Suah Sahil Tandale William J. Urmann Guana Xu Lu Yin++ Andy You Youngsuk Youn ‡ Kemper Joseph Young++ Gengbo Zhang Wayne Zhao+++§ Kim Zhu

## Meteorology and Atmospheric Science

Ashley Nicole Anderson Nicholas E. Barth Shannon Beebie Samuel Brandt+ Alex Alvin Cheung+++§ Tyler Bell Danzig Hunter Dewayne Donahoe Stuart D. Dougherty Reagan Dougherty Carl Gerland++ Angelina Horvath Mathilde Mingwei Hsia David T. Janson Nicholas A. Kilgore Catherine May Kohlman+++§‡ Marc P. Kolendowicz++§ Bradley Michael Krenicky Jr. Colin Matthew Kultys Nicholas Ryan Lin Abigail Katelyn McCarthy Sean Donald Melanson+++§‡ Quinlan Mulhern+ **Kyle James Petroziello** Joseph R. Ruch Katherine Seikel Baylee Sexton+§<sup>‡</sup> Madelyn Rose Skinner Grace Van Patter+ Anna E. VanAlstine Alisha G. Wellington§ James Andrew Wendolek Ally Nadine Yoder Jared Michael Young

#### **Mining Engineering**

Nicholas Alexander Boras Jack Mitchell Dallas Core Benjamin T. Hollister Calvin Kroczynski Savern Lau+§ Chad Lee Mcdonough

#### Petroleum and Natural Gas Engineering

Hannah Chidinma Adighije 👌 Abdulla Al Hosani Bander Khalid S. AlAbdulkarim Abdulaziz Abdullah Alanazi+ Abdullah Abdulrahman A. Aldakhail Ali Yousef A. Aldowais Maohammed Fawaz A. Alessa Faisal Tariq S. Aljabr Jowd Alawi A. Alkhabaz Eyad Hasan M. Alkhotani Tariq Ghith S. Alnizami Mohammad Essa S. ALNoaimi+++§ Fajer Hasan Algallaf Hassan Mowaffak H. Alsaygh Shooq Yaqoub Alselahi Turki Ali A. Alshaikh Abdulrahman Meshari H. Alshehri Maha Abdulrahman M. AlSuhaibani Ahmed Ghassan Alsuwayied+ Abdulaziz Mohammed S. Altwaijri Vincent Dillon Bucciarelli Christopher David Carle Chase Jonathan Ebersole Kenneth Andrew Gabrielson III Cove Ryan Klaas-Bentley Seif Magd Kane Alexander Mills Shalom Nthenya Mulinge+ Bassam lejaz M. Shahid Brady J. Straub

#### **Additional Participants**

Students who requested to be listed by March 21, 2022, and who have 8 or fewer credits to complete their degree programs are listed below.

#### **Energy Engineering**

Francisco Aguilar Preston Charles Goodwin Sufyan Omar Sufyan Sartawi Jacobo Vasquez

#### Environmental Systems Engineering

Zachary Louis Dieck

#### Geosciences

Devon C. Chenot Samuel Dikeumunna Margaret Maenner Gabriella Mentgen Garrett Paley Lauren Kathleen Stern

## Materials Science and Engineering

Ahmed Hadi Salem Awail Almenhali

## Meteorolgy and Atmospheric Science

Anthony Mastrangelo

#### **Mining Engineering**

Queen Esi Obosu

Note: The information in this document was produced March 21, 2022, as an unofficial list of students who indicated intent to graduate for the spring 2022 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.



## 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.

#### **Exclusive Member Benefits**

#### CAREER AND EDUCATION

- Alumni Career Services: Attend premium Alumni Career Service events for free or at a substantial discount.
- Discounts on Kaplan Test Preparation Services
- **Alumni Library Online:** Exclusive access to Penn State Libraries Digitized Collections and University library databases.

#### ALUMNI EMAIL



Members of the Alumni Association can sign up for a **personal Penn State email account** (@alumni.psu.edu). Accounts are hosted by Google for Education and also include **online storage** and a collection of digital tools.

#### DISCOUNTS



Members receive **access to discounts** including merchandise at Penn State Bookstore campus locations. They also receive access to discounted health, auto, renters, home, life, long-term care, and pet insurance.

Additional benefits include early invitations to Alumni Association events, access to the Alumni Directory, publications including the *Penn Stater* magazine, and much more!

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

This publication is available in alternative media on request.

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