NC STATE UNIVERSITY

Materials Science and Engineering

2023

GRADUATION CEREMONY

James B. Hunt Jr. Library
Hunt Auditorium
1070 Partners Way
Raleigh, NC 27606

FRIDAY, MAY 5, 2023
1:30 p.m.

Graduation Ceremony Program

WELCOME

Prof. Donald Brenner, Kobe Steel Distinguished Professor and Department Head

BACCALAUREATE DEGREE RECOGNITION

Prof. Yaroslava Yingling, Kobe Steel Distinguished Professor and Director of Undergraduate Programs

STUDENT COMMENCEMENT SPEAKER

Ryan Cole Prentiss Ording

SENIOR DESIGN RECOGNITION

Prof. Yaroslava Yingling

UNDERGRADUATE AWARDS

Prof. Yaroslava Yingling

MASTER'S DEGREE RECOGNITION

Prof. Lew Reynolds, Graduate Distance Education Coordinator and Nanoengineering Graduate Program Director

Ph.D. RECOGNITION

Prof. Douglas Irving, Director of Graduate Programs

CLOSING REMARKS

Prof. Donald Brenner

You are cordially invited to a reception at the conclusion of this program on the first floor atrium of Engineering Building I.

FACULTY

Kaveh Ahadi
Aram Amassian
Veronica Augustyn
Nina Balke
Donald Brenner
Ramón Collazo
Maude Cuchiara
Jerry Cuomo
Rajeev Gupta
Bharat Gwalani
Douglas Irving
Albena Ivanisevic
Jacob Jones
Jag Kasichainula
Carl Koch
Albert Kwansa
Thomas LaBean
Yin Liu
Jagdish Narayan
Lew Reynolds
Zlatko Sitar
Franky So
Richard Spontak
Martin Thuo
Joseph Tracy
Ruijuan Xu
Yaroslava Yingling

STAFF

Brenda Conover
Wendy Cox
Edna Deas
Will Douglas
Elaine Emory
Niki Jennings
Meghan Johnston
Kara Mack
George Martell
Joseph Matthews
Berni Premachandra
Sara Seltzer
Hillary Stone
Phillip Strader
Sean West
Maizie Woodall
Kimberly Zak

Bachelor of Science in Materials Science and Engineering

Oluwaseun Temidayo Ajasa
Harry Nicholas Antoniades
Kiran Anwar
Rachel Lauren Beall ***
Leah Renee Bellcase ***
Grant Blankenbeckler *
Sydney Lauren Buck **
Joseph Thomas Casey
Belicia I Castillo ◊
Lynne Marie Dale ***
Isabella DiCristofaro
Olivia Taylor Earnhardt
Alan Ferris *
Ethan Joseph Frey ◊***
Jackson Louis Goedjen***
Lucas Everett Horton **
Eli Mark Howell **
Rebecca Ann Hunt **
Logan Elliot Hutchens ***
Daniel Carter Hutchinson-Kausch **
Stanley Seung Gi Jeon
Dillon Kotecha ◊*
Anna Leonard ◊**
Tiancong Liao
Ryan Merwan Mehta
Kennedy Alexis Misher*
Michael Richard Mizak *
Paulo David Morillo ***
Seth David Murray
Ryan Cole Prentiss Ording ◊*
Amanda Isabela Plasencia
Graham Scott Roy
Jackson Robert Salido **
Ashley Noelle Simpson *
Eric Christopher States
Brenna Rita Tryon ◊**
Jacob VanderMeulen
Minyu Zhang ***

Master of Materials Science and Engineering

Philip Alarcón - Furman
Steven Anthony Baro
Nathanael Adam Edward Brown
Ethan Matthew Coloma
Sarah Grace Dalakos
Kalyani Mangesh Deshmukh
Sabrina Rohini Fleming
Daniel Robert Flint
Lucia Rebeca Gomez Hurtado
David Michael Gooding
Kyle Gough
William Graham Jackson
Jay Kothari
Fontaine Elise McFeaters
Michael James Meade
Nicolas Allen Muecke
Kyle Daniel Nelson
Kanishq Nema
Raphael Simha Orenstein
Emily Schmidt
Mona Shabani
Shaheer Shoaib Siddiqui
Sarah Kaitlyn Timmins
Mackenzie Claire Vinson
Allen Yang

◊ - University Honors | *3.25 to 3.499 GPA - Cum Laude | **3.5 to 3.749 GPA - Magna Cum Laude | ***3.75 to 4.0 GPA - Summa Cum Laude

Master of Nanoengineering

Yash Dineshbhai Bharodiya
Luca Louis Pupillo
Abishec Sundar Senthilvel
Arlynn Walter Smith
Ethan Strubinger
Teemo Saffet Teemojin
Katherine Urena Pimentel

Master of Science

Mohammed Abdulrahman Alrizqi, *"The Influences of Different Processing on the Corrosion Performance of Al-5V."* Supervised by Rajeev Gupta.

Doctor of Philosophy

Pegah Bagheri, *"Point Defect Management in Ultra-Wide Bandgap Materials for UV Optoelectronics, Power Electronics and Quantum Photonics."* Supervised by Ramón Collazo and Zlatko Sitar.

Geoffrey L Beausoleil II, *"Designing Refractory Based Multi-Principal Element Alloys with Uranium for Nuclear Fuel Applications."* Supervised by Djamel Kaoumi.

Jijo Christudasjustus, *"Insights to Corrosion Mechanisms in Nanocrystalline Al-V Alloys Produced by High-Energy Ball Mill."* Supervised by Rajeev Gupta.

Timothy Benjamin Eldred, *"Quantification and Visualization Methods of Ordering, Displacement, and Defects In Complex Oxides Using Electron Microscopy."* Supervised by Wenpei Gao.

Melanie Marie Ghelardini, *"Functionalization of Gold Nanorods and their Incorporation into Soft Materials."* Supervised by Joseph Tracy.

Hanan Alexandra Hsain, *"Processing Options for Engineered Ferroelectric Hafnia-zirconia/Titanium Nitride Interfaces."* Supervised by Jacob Jones.

Owen Thomas Rettenmaier, *"Development of Machine Learning Inter-Atomic Potentials for Shape Memory Ceramics."* Supervised by Srikanth Patala and Douglas Irving.

Mehedi Hasan Rizvi, *"Electrostatic Assembly and Magnetic Alignment of Multifunctional Gold Nanorods."* Supervised by Joseph Tracy.

Salma Siddika, *"Thermomechanical Behavior of Polymer: Small Molecule Blends Enabling Insights into Mechanical and Morphological Stability of Organic Solar Cells."* Supervised by Brendan O'Connor and Charles Balik.

Laine Alise Taussig, *"Design of Durable Conducting Polymer Architectures for High Performance Wearable and Bioelectronic Applications."* Supervised by Aram Amassian.

Sihan Wang, *" Automatic Diffraction Analysis for Strain Mapping with Four-Dimensional Scanning Transmission Electron Microscopy."* Supervised by Wenpei Gao and Yaroslava Yingling.

Chathuranga Sandamal Witharamage, *"Understanding the Corrosion Mechanisms of High Energy Ball Milled Al-V Alloys Consolidated using In-situ, Cold Compaction, Spark Plasma Sintering, and Cold Spray."* Supervised by Rajeev Gupta.

2022-2023 MSE Senior Design Projects

Oluwaseun Temidayo Ajasa, Grant Blankenbeckler, Dillon Kotecha, and Brenna Rita Tryon: *"Accelerated Aging of Plastic."* Industry partnership with Intake Health. Supervised by Brian Bender and Prof. Ruijuan Xu.

Alan Ferris, Ethan Joseph Frey, and Daniel Carter Hutchinson-Kausch: *"Additive Manufacturing of ATI Titan 171TM."* Industry partnership with ATI Materials. Supervised by David Brice and Prof. Carl Koch.

Rachel Lauren Beall, Sydney Lauren Buck, Anna Leonard, and Seth David Murray: *"Characterizing The Thermo-Mechanical Properties of Next Generation UV-Curable Slurries."* Industry partnership with Saint-Gobain Abrasives. Supervised by David Gebb, Tim Coogan, and Prof. Veronica Augustyn.

Tiancong Liao, Kennedy Alexis Misher, Michael Richard Mizak, and Eric Christopher States: *"Investigation of the Structure-Property Relationship of Select Geopolymer Compositions."* Industry partnership with Lucideon. Supervised by Carolyn Grimley and Prof. Martin Thuo

Kiran Anwar, Lucas Everett Horton, Graham Scott Roy, and Minyu Zhang: *"Micro and Nanoscale Analysis of Powder Compaction."* Industry partnership with Flexsys. Supervised by Grayson Jackson and Prof. Rich Spontak.

Joseph Thomas Casey, Isabella DiCristofaro, Amanda Isabela Plasencia, and Ashley Noelle Simpson: *"Promoting Human Health in Manual Grinding by Dampening Vibration."* Industry partnership with Saint-Gobain Abrasives. Supervised by David Gebb, Chris Arcona, Nathan Maldonado, and Prof. Yin Liu.

Logan Elliot Hutchens, Ryan Merwan Mehta, Paulo David Morillo, and Ryan Cole Prentiss Ording: *"Quality of PA12 Powder for Additive Manufacturing."* Industry partnership with Protolabs. Supervised by Carter Fraser and Prof. Aram Amassian.

Harry Nicholas Antoniades, Leah Renee Bellcase, Belicia I Castillo, and Stanley Seung Gi Jeon: *"Reuse of SS 17-4 PH Powder for LPBF Additive Manufacturing."* Industry partnership with Protolabs. Supervised by David Bentley, Alex Devon, and Prof. Bharat Gwalani.

Olivia Taylor Earnhardt, Jackson Louis Goedjen, Jackson Robert Salido, and Zhen Yun Yang: *"Ultrafast High-Temperature Sintering of Advanced Ceramics."* Industry partnership with Lucideon. Supervised by Carolyn Grimley and Prof. Rajeev Gupta.