



189th Commencement
Saturday, May 4, 2024

The Monument Ice Arena

ORDER OF CEREMONY

Master of Ceremonies	Dr. Lance Roberts
Processional (<i>Stand</i>)	Graduation Band
<i>Pomp and Circumstance by Edward Elgar, arranged by Larry Clarke</i>	
Presentation of Colors	Army ROTC Color Guard
President's Message	Dr. Jim Rankin
Recognition of the 50 Year Graduates	Dr. Lance Roberts
Senior Class Representative's Message	Mr. Patrick Rust
Message from the Board of Regents	Mr. Douglas Morrison
Presentation of Honorary Degrees	Dr. Jim Rankin
Commencement Address	Mr. Qusi Al-Haj
Conferral of Degrees	Dr. Jim Rankin
Presentation of Degree Candidates	Dr. Joseph Dlugos
Alumni Welcome	Mr. Rich Wells
Retirement of Colors	Army ROTC Color Guard
Recessional (<i>Stand</i>)	Graduation Band

Flourishes! by William Owens

SOUTH DAKOTA MINES GRADUATION BAND

Dr. Haley Armstrong, Director	Makya Milkowich, Trumpet
Angelina Benda, Clarinet	Christian Olson, Trombone
Chase Bradley, Horn	John Papiernik, Euphonium
Krista Burkman, Clarinet	Ethan Parsons, Euphonium
Alex Chan, Trumpet	Andrew Peterson, Percussion
Skyler Doty, Alto Sax	Dakota Remington, Tuba
Macy Fliehe, Flute	David Robbins, Percussion
Sam Gering, Clarinet	Rose Sarchet, Trombone
Kyle Houchin, Clarinet	Aidan Stietz, Tuba
Jacob Jorgenson, Trumpet	Brandilyn Ukena, Flute
Duram Kelly, Clarinet	Danielle Vander Poel, Flute
Mason Klein, Trumpet	Jayden Vollmuth, Horn
Luke Lichtenberg, Trombone	Charles Winkers, Trumpet
Karen Ly, Oboe	

This program is not an official document. Due to strict requirements, it must be printed before the final list of degree candidates can be determined.

50-YEAR GRADUATES

CLASS OF 1974

Class of 1974 – 386 graduates (311 BS degrees, 70 MS degrees, 5 PhD)

Only those attending today's Commencement are listed below.

Mark T. Anderson

Chemistry, Rapid City, SD

Tom Anderson

Metallurgical Engineering, Novato, CA

Ron Bach

Mechanical Engineering, Troy, ID

Paul Bachman

Electrical Engineering, Harrisburg, SD

Buddy Belzer

Civil Engineering, Rapid City, SD

Mark Bossly

Mechanical Engineering, Ipswich, MN

Gary Christman

Chemical Engineering, Spearfish, SD

Dan Colgan

Civil Engineering, Hermosa, SD

Monte Dirks

Metallurgical Engineering, Sioux Falls, SD

Fred Fletcher

Electrical Engineering, Palm Desert, CA

David Gnirk

Mechanical Engineering, Herrick, SD

Jim Green

Mechanical Engineering, Rapid City, SD

Dave Habicht

Electrical Engineering, Rapid City, SD

Michael Hafner

Mechanical Engineering, Sturgis, SD

Kevin Hegerle

Metallurgical Engineering, Parker, CO

Jerry Jarding

Mechanical Engineering, Reston, VA

Steve Kirk

Mining Engineering, McKinney, TX

Darwin Koepp

Chemical Engineering, Spearfish, SD

Sue Koepp

Chemical Engineering, Spearfish, SD

Lowell Kolb

Electrical Engineering, Rapid City, SD

Candy Krebs

Geological Engineering, Round Top, TX

Marvin Larsen

Mechanical Engineering, Albuquerque, NM

James McNulty

Math, Rapid City, SD

Ivan Mehlhaff

Chemical Engineering, Custer, SD

Kathy Miller

Chemistry, Rapid City, SD

Ken Moke

Chemical Engineering, Rossmoor, CA

Bob Morcom

Civil Engineering, Spearfish, SD

Gerry Morgen

Electrical Engineering, Kennewick, WA

Terry Mudder

Chemistry, Sheridan, WY

Jeff Muffat

Mechanical Engineering, Cottage Grove, MN

Bill Mulder

Mechanical Engineering, Mitchell, SD

Gary Nelson

Civil Engineering, Romeoville, IL

Marlene Nelson

Mechanical Engineering, Bellevue, WA

Al Ness

Metallurgical Engineering, St Augustine, FL

Michael Pawlak

Civil Engineering, Arlington, WA

Leno Pederson

Electrical Engineering, Bardstown, KY

Mary Pederson

Chemical Engineering, Bardstown, KY

Steve Piatz

Electrical Engineering, Eagan, MN

Randall Pooley

Chemical Engineering, Rathdrum, ID

Randy Porterfield

Mechanical Engineering, Norman, OK

Duane Quiett

Mechanical Engineering, Gettysburg, SD

Art Rausch

Civil Engineering, Heathsville, VA

Steve Richard

Civil Engineering, Grand Junction, CO

Bob Ringgenberg

Metallurgical Engineering, Nixa, MO

Jim Schunneman

Mechanical Engineering, Houston, TX

Jim Scull

Civil Engineering, Rapid City, SD

Lindell Sunde

Mechanical Engineering, Charlotte, NC

Don Swanson

Civil Engineering, Des Moines, IA

Steve Vanderboom

Civil Engineering, Medina, MN

CLASS OF 1949

Jim Ward

Electrical Engineering, Milwaukee, WI

SENIOR CLASS REPRESENTATIVE

Mr. Patrick Rust

Patrick Rust came to South Dakota Mines after graduating from Chadron High School in Chadron, NE. His parents are Katie and Jason Rust, and he has one sister, Megan Rust.

Rust has been involved in various clubs and activities while at South Dakota Mines. He has served as a student senator, student mentor, residential advisor, and a member of Circle K International. He has been a member of Lambda Chi Alpha, serving as scholastics chair in and vice president. He has been a member of the Vex U Robotics team, serving as vice president and treasurer. He received the Caring, Helping, Aspiring, and Development (C.H.A.D.) award last year and was inducted into the Leadership Hall of Fame this spring. He completed an internship with Dakota Panel and two internships with Lockheed Martin Space.

After graduating with his Bachelor of Science degree in industrial engineering and engineering management, Rust will be working at Raytheon in Tucson, AZ.

HONORARY DOCTOR OF PUBLIC SERVICE

Mr. Qusi Al-Haj

Mr. Qusi Al-Haj came to the United States from Zarqa, Jordan, at age 17. He graduated from South Dakota Mines in 1991 with a master's degree in electrical engineering; he received a bachelor's degree in electrical engineering from the University of Missouri at Rolla in 1983. He became a U.S. citizen in 1991. He is the founder and former president of Micro Solutions, Inc.; former special assistant to the Deputy Under Secretary of the Air Force for International Affairs; and is currently the deputy state director and Air Force advisor to U.S. Senator John Thune. He is a charter board member of the Rapid City Community Development Corporation, and served on the Ellsworth Task Force & Honorary Commander Program as well as the Rapid City Chamber Military Affairs Committee. He is a past chairman of the Rapid City Area Chamber of Commerce, past president of the Rapid City Rotary Club, and served as a board member of the Boy Scouts and Girl Scouts of the Black Hills and vice chairman of Black Hills Works. He currently serves on Black Hills State University School of Business Advisory Board, and is a member of the audit committee for Mines' Center of Alumni Relations and Advancement.

GRADUATE DESIGNATIONS

† Army ROTC Cadet being
commissioned as Second Lieutenant

‡ Summer 2024 Graduate

‡ 2023 Graduate

‡‡ Fall 2024 Graduate

BACHELOR OF SCIENCE DEGREE

*Cum Laude	White Tassels	3.50 - 3.69 GPA
**Magna Cum Laude	Red Tassels	3.70 - 3.89 GPA
***Summa Cum Laude	Gold Tassels	3.90 - 4.00 GPA

DOCTOR OF PHILOSOPHY DEGREE CANDIDATES

Atmospheric and Environmental Sciences

Battsengel Dashdorj

Dissertation Title: Flow characterization, trends, and peak flow frequency analysis in the Mongolian Orkhon River watershed

Civil and Environmental Engineering

Cody J. Allen

Dissertation Title: Spatiotemporal dynamics of sulfate reducing bacteria during microbial induced corrosion

Geology, Geological Engineering, and Mining Engineering: Mining Engineering Specialization

Scott David Rosenthal

Dissertation Title: Impacts to Load Carrying Capacity per Unit Length of Swellex® Rockbolts Subjected to Blasting Induced Vibrations

MASTER OF ENGINEERING DEGREE CANDIDATES

Civil and Environmental Engineering

Taran Lynn Tucker

MASTER OF SCIENCE DEGREE CANDIDATES

Atmospheric and Environmental Sciences

Per Russell Lundquist ‡‡

Biomedical Engineering

Caleb Allen Brouwer ‡‡

Amelia Pearl Huffer

Kara Lynn Huse ‡‡

Nadia Jo Kaczmarz

Jillian Irene Linder

Chemical Engineering

Grant Walker Bauer

Daniel Carl Cerfus

Zoe Nicole Fickbohm

Christen Violet Gauker

Chisimdi Vivienne Udedike

Civil and Environmental Engineering

Antonio M. Candelaria

Alexander J. Hall

Tracy Lynn Herrboldt

Mason Matthew Karpen

Daniel Kazadi Kime

Quinton J. Mohr

Samantha E. Overend

Md. Hasan-Ur Rahman

Rabbi Sikder

Tatiana Angeline Vasquez

Computer Science and Engineering

Emeka David Amadi
Caleb Lewis Ehrisman
David Michael Mathews ‡
Md Kausar Hamid Miji
Mangesh Sagar Sakordekar

Construction Engineering and Management

Bryce Jimmy Hayes
Danner Kent Purkett

Electrical Engineering

Jamiu Mohammed Abdulsalam
Mou Deb
Edna Ayide Egbunu
S. M. Ahsan Habib
Caden Robert Johnson
Venkata Sasidhar Kunchapu
Jacob Simpson Oursland

Engineering Management

Quintan Evan Green
Philip Andrew Litecky
Roosevelt Kenneth Momon
Johnathon Raymond Weber

Geology and Geological Engineering

Madison Xariah Betts
Gillian M. Clark
Lauren Kathleen Stern
Michael Tetteh
David Jerry Tilley, Jr.

Green and Sustainable Chemistry

Izabelle Brooke Smith

Industrial Engineering

Peter Young Atteh
Leila Talebi ‡

Materials Engineering and Science

Avery Thomas Bend ‡‡

Carter John Crawford

Mechanical Engineering

Anthony Chinonso Ekemezie

Cameron Wade Good

Hafizul Islam ‡‡

Ryan Rodney Kappenman

Zachary William Karg

Morgan Marguerite Wiechmann

Mining Engineering and Management

Ian Michael Cone

Yahor Dzemiuziuk

Michael Michael

Anthony Alexander Rojas

Nicole Russell

Nanoscience and Nanoengineering

Tolulope Olayinka Ajuwon ‡

Paleontology

Corrine Roe Cranor

Krystal Bernadette Ortiz

Katrina Wisofsky

BACHELOR OF SCIENCE DEGREE CANDIDATES

Applied and Computational Mathematics

Jordan Lea Harter

Atmospheric and Environmental Sciences

Markus Ron Sonnenfeld

Biology

Nathan Price Andersen

Hayley Rae Carter

Sydnee Jill Durtsche

Natalie Grace Montoya ***

Aaron Michael Olson **

Kevin Alan Osmanski **

Jaka Prevodnik ***

Isabelle R. Schild

Grace Rose Tuntland

Joshua Clinton Zerbel †‡

Biomedical Engineering

Katherine Marie Ballard **

Alonna G. Clair **

Cody M. Collier

Bryce Leonard Deaver ***

Greyson Mark DeVries

Cruz Micheal Franich

Brandon M. Gabert **

Megan Leigh Major

Grace Brook Neven

Michael E. Perry ***

Tierney Rae Robinson

Claire Lee Smith

Braxton Keith Tyree

Samuel Clark Van Osdel **

Joseph Vincent

Business Management in Technology

Darlane Carole Keeler

Spencer Todd Skeesick

Brannagh Jack Walsh *†‡

Chemical Engineering

Seattle Marley Briscoe **
Dalton Lawrence Eckmann **
Ian Andrew Elkins
Rianna Garland
Jay Cyril Horning *
Reid Alexander Kaiser
Kyler Douglas Lillie
Macy Jane Loos
Dalton Marshall
Jake Ryan Martinelli ***
Katelyn J. Novacek
Lexi Morgan Ochsner **
Preston Charles Seamands
Evelyn Elise Smith
Josi Jene Stevens
Zack Riley Sudbeck ***
Samuel Cory Wood

Chemistry

Karmin E. Brunner **
Kendra Louise Westerbur

Civil Engineering

Sydney Nicole Carlbom ***
Hayden Thomas Casdorff ‡‡
Garrett Lee Cole
Amanda Brooke Cooley
Reid Scott Dutrow
Samuel David Elliott †
Keaton T. Erhardt
Allison Marie Harr
Matthew Thomas Heilman ***
Carly Kate Hirsch
Taylor Dean Hojer *
David Douglas Julius
Ava Annalise Knutson
Benjamin Douglas Lewis
James Ray Lichtenberg
Nathan D. Lyon
Eliza Drew McCallum
Tyrese Malcom Morris
Tierney Dee Musick
Isaac Ray Nedved
Dustin James Paschke

Ruth Mackenzie Potter ***‡‡
Danner Kent Purkett
Raymundo Ramirez
Abigaile G. Saline ***
Annika Jude Schooler
Abigail Paige Strahl
Emma Mira Thompson **

Computer Engineering

Bradley Jon Dahlke
Dakota Richard Hugh Edens ***
Alexander J. Gergen *
Bryce William Goettle ***
Michael Robert Green ***
Colton M. Kaup *
Trevor David Keierleber *
Jayden Dale Molstad ‡‡
Ashley Lynn Schnetzer *

Computer Science

Johnathan Alejandro Arellano
Christopher Robbin Bare
Benjamin Raphael Catalano
Kaeli Grace Clark
Aidan Coopman
Michael Robert Green ***
Alex James Hanson
Connor K. Heath
Noah A. Johnson **
Adam Leo Kraus
Landon James Lamoreaux
Brandon Michael LeBlond *
Edward Lee Maertens
Patrick Jay McBride *
Isaac Patrick McClanahan **
Joshua Francis Mentele ***
Zoe Rae Millage *
Sage Alan Oltmanns *
Ethan Wildon Parsons ***
Hunter Reece Paxton
Lindsey Kae Powell
Carson Daniel Price **
Austin Leon Scott
Brayden L. Simon

Daniel J. Taylor *
Mican James Vollan
Dakota Walker
Adeline Clare Wilson

Electrical Engineering

Hezekiah Celestino Ray Arguello
Joshua Jacob Bjerken
Zachary Ryan Bolyard
Jacob Harisson Borden
Zachary C. Boswell
Hunter Kenneth Butler
Tate Walker Dille ***
Chayce Hunter Grindle
Caden Robert Johnson
Theron Michael Kalasinsky *
Cecilia A. Kouri *
Benjamin William Laufman
Joshua John Leone ***
Kiley ReNae Metzger ***
Isabela Meza
Roberto Manuel Perez Torres *†††
Antonio Joseph Romero
Ayden Michael Orr Roush
Braeden Michael Seifert-Bulat **
Matthew Austin Sin **
Owen Stenstadvolden ***
Mason Matthew Teal ***
Skylar Apollo Tyler
Spencer A. Wasmund

Geological Engineering

Divo Cerjan
Samuel J. Herrboldt **

Geology

Ethan Stewart Bailey
Rebecca Lynne Braun **
Reghan Beth Deboer **
Aidan T. Forbes
Zachariah Alfred Hentschel
Dylan Brock Lau
Morgan Elizabeth Nystuen **

Industrial Engineering and Engineering Management

Trevin C. Anderson *
Nathan Joseph Dahme
Dylan Ray Dunn
Adrian Edwin Eastman
Naomi Sariah Hidalgo
Kaden David Jerke *
Nicholas Nathan Limoges
Dominick Zane Oedekoven ***
Trase Douglas Olsen
Patrick P. Rust
Keagen Sidney Smith *
Brent Michael Snyder *
Ryan Joshua Soper
Juliann K. Spilman
Jaycie Marie Stubbs *

Mathematics

Noah Steven Everett ***
Simon T. Mannisto **
Jonathan Paul Snoozy
Owen Stenstadvolden ***

Mechanical Engineering

Micah Alexander Anderson
Jaden S. Arner
Frank Daniel Baca
Donavan Thomas Bradford
Mitchell James Carolan
Britton Douglas Carver
Monty Lee Christo †
Alexis Grace Crumb
Ryley F. Darnell **
Shawn Patrick Dean
Kyden Fraser DeGross
Tyler John DeVelder *
Nathan Scott Dooley
Tyler C. Drey
Seth Michael Drum
Gage B. Espanet
Deon David Estebo **
Ryan Casey Forbes
Dalton Michael Fox
Isaiah Leon Garcia
Luis Fernando Gonzalez

Cameron Dean Goodman
Henry Patrick Haub
Devon Willard Heilman ***
Parker Heiserman
Luke John Henderson
Gabriel G. Hobbie *
Erik J. Hokans
Garrett Scott Holland
Kyle Willam Houchin
Isaak Iverson
Rickey Eugene Jendry
Jayden N. Johannsen
Christopher J. Kardell
Arik Michael Kaski *
Sydney G. Kerr
Mason Keller Klein
Kane Engen Knudson
Zachary William Koehn
Garrett Thomas Kramer
Broc St. John Langren
Haven Michael Larson
Braydon Connealy Lemmon
Trinity James Lindner
Luke Robert Lovegreen
Melissa Katherine May **
Carsten Robert McNeil
Ryan George McSwain
Logan John Mendenhall
Rayane Mesmoudi
Nicholas Patrick Moore
Jordan Martell Morrison
Yash Pandhari Naik
Daniel Quang Nguyen ***
Regan Duncan Ogilvie †
Bennet Jonathan Outland **
Royal Lee Paulsen
Nathan Petzold
Timothy Aaron Pike
Nathan Ryan Renz
Jace Jeffrey Ruud
Ian Hall Sandry
Elijah N. Shaner
Joshua David Simpson
Sophia Elizabeth Sorbo
Thomas Karl Stewart

Michael Henry Theis
Conrad Gary Thorman **
Gage Thieke Tuohy
Riley Scott Van Den Top ***
Cooper Jon Vermeulen *
Grant Neil Vikre **
Logan Jay Vojta
Sean Wacker ***
Kevin Andrew Wake
Andrew James Ward
Avery W. Warren
Calvin J. Wolf

Metallurgical Engineering

Quinn Z. Barnes *
Gage M. Canfield
Jaxson A. Dueland
Aaron Scott Eastlake *
Charles Benjamin Gauker
Brianna Nicole Hoff ***
Elyse Sylvan Jensen
Trent Alexander Klocek
Casey Aaron Mason
Mya Gross Maxwell
Austin B. McCracken
Christopher Alan Mercado
Caleb E. Ploeger ***
Rylan Jace Rasmussen *
Tyler T. Reinarts
Joshua Edward Robinson
Jenna Dea Sayler
Jake Donavon Scheafer **
Abigail Dean Sharp
Matthew Hesper Swanson
Charles Eric Thrift ***
Aaron Daniel White

Mining Engineering

Lauren Ann Fritz
Spencer Thomas Hershman
Elena L. Lieb
Neal Robert Miller
Harold Philip Nesbitt
Cooper Allen Stamp
Elisa Lenora Swartz *

Physics

Noah Steven Everett ***
Matthew C. Georgesen *
Austin Ryan Helgert
Tristen August Olsson **

Pre-Professional Health Sciences

Madelyn Marie Heiser **
Lily Kara Peterson **
Rayleigh Ione Peterson
Tyler David Tully
Grace Rose Tuntland
Abigail Jean Van Ruler *
Shelby Nicole Walker
Jacob Douglas Zaug ***

Science, Technology, and Society

Keaton Christine Gray
Sophia Grohs

ASSOCIATE OF ARTS DEGREE CANDIDATES

General Studies

Dorothy H. Snowden

THE TRADITION OF COMMENCEMENT

Dating back to the universities of thirteenth-century Europe, the conferring of degrees signified that faculty members had attained the guild status of a master. Originally, this "master's" degree was the only one offered; the baccalaureate was simply a stage towards mastership. During the ceremony, black robes were worn in imitation of the clergy, for church and university were one at the time. When the hood was placed over the candidate's head, the ceremony was consummated, and mastership was achieved.

Over the centuries, graduation evolved to commemorate more than the end of an educational endeavor or the mastership of a craft. Instead, it became the start of a new adventure, a passage to professional status recognized by the community of scholars and the community at large.

Today, we call this ceremony commencement, a term defined as both an act of commencing and the ceremony for conferring degrees. In essence, it means a beginning within an end. A middle English term, commencement traces its roots to Anglo-French, Old French, and finally, the Latin word, *cominitiare*, a combination of the prefix *com* and *initiare*, meaning "together, begin," a fitting origin for a word that evokes a graduate's first steps taken in fellowship and a poignant reminder that in each destination lies a new dawn.

ACADEMIC ATTIRE

The use of academic dress stems from costumes used in universities of the fourteenth and fifteenth centuries, particularly at Oxford and Cambridge in England. The dress has been used in the United States since colonial times and was standardized by an Intercollegiate Code in 1895.

The style of gown and hood designate the degree earned. The bachelor's gown is royal blue without a hood and the sleeves are pointed; the master's gown is black and has oblong sleeves; and the doctoral gown is trimmed with velvet, has three distinctive chevrons on each arm, and bell-shaped sleeves.

The two colors on the inside of the hood are traditionally the colors of the college granting the degree. The School of Mines colors are blue and gold; however, the hood for the School of Mines is gold and silver, symbolic of the university's connection to these precious metals. Caps are black mortarboards with the tassel worn over the left front quadrant.

As one may observe from the procession, the faculty wear hoods and gowns of varying styles and colors. The color of the tassel on the hat and the outside velvet trim of the hood indicate the field of study.

THE CEREMONIAL MACE

During today's ceremony, the chair of the faculty will carry the South Dakota School of Mines & Technology's ceremonial mace. The university mace is an academic tradition that dates back to medieval times. The mace has acquired the ceremonial function of "guarding" the president in the tradition of a medieval sergent-at-arms.

The School of Mines mace was designed to represent the university's many disciplines. The handle was crafted from a fossil and represents paleontology, while the pink quartz sphere, encased in the symbol of an atom, symbolizes both geology and physics. The silver and gold signify the institution's rich mining tradition. The laurel leaf garland crown, fashioned from Black Hills Gold, represents a mark of honor, distinction, and success.

The mace was designed by Ms. Deborah Mitchell, former director of the Apex Gallery and associate professor in the Department of Humanities. The seal was engraved by Dr. Ryan Koontz, former integrated manufacturing specialist for the Center of Excellence for Advanced Multidisciplinary Projects.

ALUMNI PINS

On behalf of South Dakota Mines Center for Alumni Relations and Advancement, each graduate is gifted with an alumni pin, presented by Honorary Alumni President Gary Christman. The pin serves as a reminder that once a Hardrocker, always a Hardrocker and the hope is graduates will wear it proudly as they go forth in their careers.

PHOTOGRAPHY SERVICES

The Grad Team will be providing photography services to the graduates. Photos will be available online at TheGradTeam.com/events approximately one week after the ceremony.

CUSTOM GRADUATION VIDEO

Celebrate with your free graduation gift. Download your StageClip personalized graduation video, featuring just your special moment on stage. Find your clip after graduation at sdsmt.stageclip.com.

COMMENCEMENT COMMITTEE

Dr. Haley Armstrong, Co-chair
Dr. Saurabh Dhiman
Dr. Joseph Dlugos
Ms. Diana Eastman
Ms. Gina Fiorello
Ms. Alyssa Gizinski
Dr. Jade Herman, Co-chair

Ms. Rachel Howard
Mr. Marlin Kinzer
Ms. Eliza McCallum
LTC Max Rovzar
Mr. Bryan Schumacher
Ms. Rachel Skea
Mr. Calvin Tohm

SOUTH DAKOTA BOARD OF REGENTS

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Mr. Jeff Partridge, Vice President
Mr. Douglas Morrison, Secretary
Mr. Nathan Lukkes, Executive Director
Mr. Brock Brown

Dr. Judy Dittman
Mr. Randy Frederick
Mr. James Lochner
Mr. Randy Rasmussen
Ms. Pam Roberts

