

NDSU COLLEGE OF
ARTS AND SCIENCES

PAID / CREDIT



24-25

ROPES

Research Opportunities for Engaging Students



Participate in world-class research

Faculty members in the College of Arts and Sciences invite you to join them in their labs and in the field. Our cutting-edge researchers are ready to show you the ropes of scientific research and give you a front-row seat for the latest discoveries in their fields.

Participating in research gives you the opportunity to immerse yourself in science and apply what you learn in the classroom. You will hone your problem-solving and critical-thinking skills that will serve you well in whatever career you choose.

Your hands-on experience at a top 100 research university will make you more competitive for scholarships and fellowships and give you excellent preparation for graduate-level education.

Why do research?

- Earn academic credits or get paid.
- Develop skills for your career.
- Apply what you learn in the classroom.
- Be more competitive for scholarships and fellowships.
- Work with top-notch researchers.
- Prepare for graduate-level education.

Get started

1. Review the following list to find a research project that interests you.
2. Contact the faculty member about working with them.
You can find contact information in the campus directory at ndsuhigheredu.edu/directory.

The Promising Undergraduate Research Scholarship

The Promising Undergraduate Research Scholarship (PURS) is a scholarship opportunity for students who are pursuing faculty guided research opportunities in the Science and Mathematics disciplines. Eligible students will have demonstrated financial need as defined by the Office of Financial Aid. Awards may be renewable and are for at least 50% of tuition.

To apply, please email College of Arts and Sciences Dean Kimberly Wallin at Kimberly.wallin@ndsuhigheredu.edu.

Apparel, Retail Merchandising and Design Program

Professor	Students	Major or coursework	Research area	Credit or pay
Lee Jaeha	3	Any	Entrepreneurship, Sustainability, Consumer behavior	Credit/pay

Biological Sciences

Professor	Students	Major or coursework	Research area	Credit or pay
Laura Aldrich-Wolfe	2	Any	Plant-fungal interactions	Credit to start
Kimberly Booth	1-2	No major coursework requirement	Teaching and learning of non-majors biology courses	Credit
Julia Bowsher	1-2	Biol 151	Bee stress physiology	Credit/pay
Ned Dochtermann	4	No required course background of major	Behavioral and evolutionary ecology	Credit
Erin Gillam	1-2	Any	Behavior and conservation of bats	Credit/pay
Kendra Greenlee	1-2	Majoring in biology	Insect physiology	Credit to start
Tim Greives	1-2	Majoring in biology or psychology	Seasonal regulation of physiology behavior	Credit
Britt Heidinger	1-2	Biology major	Avian physiological ecology	Credit
Jiha Kim	1-2	Biol 150 and 151	Cancer biology	Credit to start
Page Klug	2-3	Majoring in biology, natural resources management or agriculture	Human-wildlife interactions and wildlife conservation in human-modified systems	Credit/pay
Giancarlo Lopez-Martinez	2-3	Majoring in biology and completed Biol 150 and 151	Stress physiology focusing on oxidative stress	Credit to start
Jennifer Momsen	2	Any major, freshman and up	Learning in biology, alternative grading, systems thinking	Credit to start
Lisa Montplaisir	1-2	Completed Biol 150 and 151	Teaching and learning of undergraduate biology	Credit to start
Katie Reindl	1	Biol 150	Cancer cell biology and pharmacology	Credit
Sarah Signor	2-3	Any major	Evolutionary genetics	Credit to start
Matthew Smith	2-6	Students can be freshmen to seniors	Reptile care, herpetology and physiological ecology	Credit to start
Craig Stockwell	1-3	Biology or natural resources management	Fisheries conservation and behavior	Credit to start

Chemistry and Biochemistry

Professor	Students	Major or coursework	Research area	Credit or pay
Uwe Burghaus	2	Chemistry/physics all levels	Surface science, nanoscience and materials	Credit to start
Stuart Haring	2-3	Science major, freshman-junior	Molecular and cellular biology, mutation and disease prevention	Credit to start
Dmitri Kilin	Up to 3	Chemistry/physics/math/engineering	Dynamics of photo-reactions and charge transfer in materials for LED, PV and telecommunications by computational chemistry and machine-learning FF methods	Credit/pay
Svetlana Kilina	1-2	Chemistry/Physics or any STEM major/ freshman-senior	Computational chemistry of nanostructures	Credit/pay
Alexey Leontyev	1	General chemistry	Chemistry education research	Credit/pay
Seth Rasmussen	1-2	Chem 160/161	Organic semiconducting materials and/or history of science	Credit to start
Kenton Rodgers	1-2	Chemistry/biochemistry	Metallobiochemistry, biophysics, inorganic chemistry, laser spectroscopy	Credit to start
Mukund Sibi	1-2	Organic chemistry 1 and 2	Green chemistry, sustainable materials and medicinal chemistry	Credit/pay
Pinjing Zhao	1-2	Organic chemistry 1 and 2	Organometallic chemistry and catalysis	Credit/pay

Coatings and Polymeric Materials

Professor	Students	Major or coursework	Research area	Credit or pay
Eugene Caldona	1-2	Chemistry/Physics/Engineering/Coatings and Polymeric Materials Minor	Coatings, polymers, electrochemistry, surface chemistry, 3D printing	Credit
Xiaoning Qi	1-2	Chemistry/Physics/Engineering/Coatings and Polymeric Materials Minor	Corrosion, materials design and formulation and functional coatings	Credit/pay
Mohi Quadir	2-3	Chemistry/biochemistry	Laboratory-based synthesis of polymers, nanomaterials	Credit/pay
Bakhtiyor Rasulev	1-2	Major in chemistry/biochemistry/statistics and computer science	Computational polymer chemistry, cheminformatics, machine learning in materials and materials informatics	Credit/pay
Andriy Voronov	1-2	Organic chemistry	Study of polymeric materials from natural resources	Credit/pay
Dean Webster	3-4	Major in chemistry/engineering/minor coatings and polymeric materials	Synthesis and characterization of polymers, coatings and elastomers	Credit/pay

Landscape Architecture, Disaster Resilience and Emergency Management

Professor	Students	Major or coursework	Research area	Credit or pay
Dominic Fischer	1-2	Landscape Architecture, G.I.S., Community Resilience	Design and management of the at the Theodore Roosevelt Presidential Library campus	Credit/pay
Juncheng Lu	1-2	Landscape Architecture, G.I.S., Community Resilience	Landscape performance, watershed management and stream restoration	Credit/pay
Peter Oduor	1-2	Landscape Architecture, G.I.S., Community Resilience, Engineering, Architecture	Geographic information systems and geospatial analysis lab assistant	Credit/pay

Mathematics

Professor	Students	Major or coursework	Research area	Credit or pay
Dogan Çömez	2-3	Math, science, physics major and Math 266, 270	Fractals and their dynamics/coding	Credit
Friedrich Littmann	1-2	Math 450 or 481	Fourier analysis and signal processing	Credit
Timothy Ryan	2-3	Math 270 or Python coding experience	Algebraic geometry, computer aided computation in the same	Credit
Jessica Striker	1-2	Math, physics or computer science major; Python coding experience or Math 430 or 436	Computational combinatorics	Credit/pay

“The research here at NDSU is my favorite part of the campus. All of the professors are experts in fields and topics that are so niche and underestimated. It’s such a wonderful experience to be around the people here.”

Garrett Honzay

senior in biochemistry and molecular biology

Physics

Professor	Students	Major or coursework	Research area	Credit or pay
Yongki Choi	1-4	Physics/chemistry/biology/engineering	Biophysics, bioelectronics and nanotechnology development	Credit/pay
Andrew Croll	1-4	Physics/chemistry/mechanical engineering/biology	Polymer science and engineering	Credit/pay
Alan Denton	1-2	Physics/chemistry/engineering	Theoretical and computational modeling of soft materials	Credit to start
Mila Kryjevskaja	1-2	Completed Phys 252	Physics education research	Credit/pay
Andrei Kryjevski	1	Phys 486	Simulation of electronic properties of nanostructures	Credit/pay
Sylvio May	1	Physics/mathematics/engineering	Soft materials	Credit
Alexander Wagner	2	Physics/mathematics/engineering	Modeling fluids with lattice gases	Credit

Psychology

Professor	Students	Major or coursework	Research area	Credit or pay
Benjamin Balas	2-3	Psychology, biology or computer science	Visual shape and texture perception in children and adults	Credit
Erin Conwell	3-4	Psychology	Language development and processing in children and adults	Credit/pay
Katherine Duggan	3-4	Any major or class level	Personality, sleep and health	Credit/pay
Jeremy Hamm	2-4	Sophomore+ with a GPA of 3.0+	Motivation, cognition and health	Credit to start
Clayton Hilmert	4-6	Sophomore+/GPA 3.0+	Stress and health	Credit
Leah Irish	5-6	Psychology/health sciences	Sleep, lifestyle and health outcomes	Credit
Michael Robinson	4-5	Psychology/sophomore+	Personality, emotion, self-regulation and social behavior	Credit
Laura Thomas	2-4	Psychology	Action and cognition	Credit to start



“I am so grateful NDSU has an undergraduate research program. Working with graduate and doctoral students has truly helped me learn and grow as a researcher. This opportunity has made me a more well-rounded researcher and student while allowing me to envision my future in wildlife, experience both field and lab work and connect me to amazing people!”

Emily Stonecipher
junior in biology

Clubs and Organizations

College of Arts and Sciences Ambassadors

Presidents: Jessica Brown and Ellee Pastwa

Vice Presidents: Katelyn Hanson and

Katrina Cysweski

Adviser: Nadeje Alexandre

AD Club (Advertising and Design)

American Medical Student Association

Pre-Dental Club

Pre-Medical Club

Pre-Optometry Club

Pre-Physician Assistant Club

Adviser: Jill Lodde Greives

American Society of Landscape Architects

NDSU Chapter

Anthropology Association

President: Anton Fyerherm

Adviser: Kristen Fellows

Aspiring Teachers of Math and Science

Advisers: James Nyachwaya and Teresa Shume

Bison Information Network (TV station)

Adviser: Jeffrey Anders

Chemistry and Biochemistry Club

Advisers: Seth Rasmussen and Stuart Haring

Criminal Justice Club

President: Emmanuelle Boschee

Adviser: Kevin Thompson

Emergency Management Student Association

NDSU Chapter, FEMA Region 8

Lincoln Speech and Debate

Adviser: Lis Fricker

Management Comm Club

Adviser: Stephenson Beck

Math Club

President: Nolan Severance

Photo Club

Adviser: Ross Collins

Pi Mu Epsilon (Math Club)

President: Isabel Wills

Psychology Club

President: Sierra Preabt

Adviser: Leah Irish

Public Relations Student Association of America

Adviser: Wan Wang

Society of Physics Students

President: George Pasche

Adviser: Alan Denton

Sociology Club

President: Trinity Chourtmanche

Adviser: Christina Weber

The Spectrum (newspaper)

Adviser: Stephenson Beck

Thunder Radio KNDS

Adviser: Stephenson Beck

Wildlife Society

Advisers: Erin Gillam and Matthew Smith