



Wofford College

**STUDENT-FACULTY COLLABORATIVE  
AND MENTORED SUMMER  
UNDERGRADUATE RESEARCH**

Summer 2024





## MESSAGE FROM THE DIRECTOR

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Summer is an ideal time for students and professors to engage in research and creative works. This past summer was no exception. We kicked it off with the one-day Institute for Collaborative and Mentored Undergraduate Research. The event welcomed collaborative research teams and provided attendees great opportunities to discuss community-building and share best practices for mentorship and undergraduate research.

This year's research teams featured in the pages that follow include professors from more than 15 disciplines and students from more than 22 majors.

High gratitude to all the students, faculty, staff, alumni, community partners, donors and friends of the college who have contributed and who have made this creative scholarship possible.

Go Terriers!

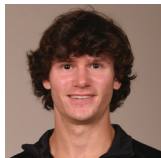


**Dr. Ramón Galiñanes Jr.**

Director of undergraduate research  
and post-graduate fellowships

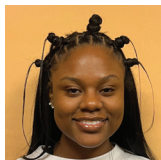
## STUDENT BIOGRAPHIES

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**John Bolinger '26** is a chemistry and government double major from Spartanburg, South Carolina. He worked with two other Wofford students at Furman University this summer. His research focused on the development of new methods of making amines (nitrogen containing molecules). The major issue with conventional amine chemistry is the multistep synthesis it requires, which ultimately leads to a lower yield of the desired product. A more favorable method for the synthesis of amines is hydroamination. Hydroamination is the addition of a nitrogen-hydrogen bond to a carbon-carbon multiple bond. This methodology is a single-step synthesis that would decrease chemical waste and increase overall yields. To do this, John synthesized a novel aminotroponimate-based ligand that incorporated hydrogen bond acceptors that would promote intermolecular hydroamination. Amines are important in pharmaceuticals and agrochemicals because of their immense biological functions. While this project is ongoing, the ultimate goal is to provide chemists a novel way to synthesize new pharmaceuticals and agrochemicals.

**Faculty collaborator and mentor:** Dr. Robert Harris '09, assistant professor of chemistry.



**Dymia Brannon '26** of Jonesville, South Carolina, explored how Southern Black girls express their identities through a rich tapestry of cultural, historical and personal narratives, defining themselves with resilience, creativity and a deep sense of community. Dymia's project investigates how individuals combat negative stereotypes and tropes by reclaiming their narratives, showcasing their diverse talents and supporting one another in affirming environments. Additionally, Southern Black women share their stories and experiences in a podcast, illustrating how they have overcome many of the societal constraints imposed on them from birth.

**Faculty collaborator and mentor:** Dr. Bria Harper, assistant professor of English.



**Daniel Brasington '25** is an economics and philosophy major from Woodruff, South Carolina. This was his second year working with Dr. Dwain Pruitt and four other student researchers to establish an oral history of the Black experience at Wofford while marking the college's 60th anniversary of desegregation. The project focuses on the experience of Black students, faculty and staff during the first 30 years after Wofford's integration. The team interviewed some of the college's first Black graduates and learned of their experiences on campus and their accomplishments since graduation. The team has been using those conversations to write features and produce an exhibit that conveys the experience of people who have been so instrumental in the growth and betterment of the college.

**Faculty collaborator and mentor:** Dr. Dwain Pruitt '95, chief equity officer and vice president of community initiatives.



**Susann Breazeale '26** is an English major and philosophy minor from Pickens, South Carolina. She worked with four other students to develop an understanding of humanistic AI. She worked with generative AI tools such as ChatGPT and Claude to gain a better understanding of the ways artificial intelligence can be effectively used in education and everyday life.

**Faculty collaborator and mentor:** Dr. Kimberly Hall, associate professor of English.



**Maranda Brown '25** continued her transformative summer research journey of decoding Black Girlhood with #BlackGirlsSouth. Through literature, her research team has connected generations and is offering insights into cultural shifts and resilience. Their work also is uncovering voices that are often unheard. Key information is accessible to all through a dynamic podcast series.

**Faculty collaborator and mentor:** Dr. Bria Harper, assistant professor of English.



**Chanson Bullard '26** is a biology and psychology double major from Sumter, South Carolina, with a neuroscience concentration and intended philosophy minor on the pre-med track. She worked alongside Dr. Matthew Cathey to investigate the course of King George III's cognitive decline. Through close reading and transcription of Royal Physician's daily journal entries, the aim was to compile and quantify aspects of his treatments and symptoms to potentially reach a more definitive diagnosis.

**Faculty collaborator and mentor:** Dr. Matthew Cathey, professor of mathematics.



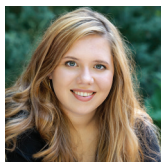
**Maddie Carter '26** is a biology and government double major from Summerville, South Carolina. She spent the summer expanding on a previous project that aimed to understand the role of the TANGO6 gene in early zebrafish development. The function of TANGO6 is largely unknown; therefore, she studied zebrafish embryos with a functioning TANGO6 gene and compared their development to the development of embryos with a non-functional TANGO6 gene. The results of this research could eventually lead to determining the purpose of TANGO6 in early development and what systems are affected when the gene is nonfunctional.

**Faculty collaborator and mentor:** Dr. Kelli Carroll, assistant professor of biology.



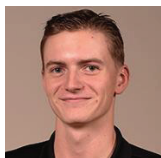
**Jackson Casey '25** is an English major and business minor from Norman, Oklahoma. He wrote poetry for the dual purpose of gaining graduate school admissions and having his work appear in publications. He read the work of a series of contemporary poets who teach in graduate programs and discussed those works. Based on his voluminous readings and in-depth discussions, he produced exercises to determine the aesthetic value and qualities of both the outside reading and the original work, and to begin to experience what it means to create a small and dedicated group of workshop readers and peers.

**Faculty collaborator and mentor:** Dr. Patrick Whitfill, associate professor of English.



**Aubrey Chapman '25** is a German and English major from Ninety Six, South Carolina. This summer was her first year working with four other students on the continuation of a project focused on the oral history of the Black experience at Wofford College. The project commemorates Wofford's 60th anniversary of desegregation. This summer, the team focused on the first 30 years after Al Gray's admittance to the college in 1964. Their goal is to highlight the experiences and personal stories of Black students, faculty and staff as Wofford College desegregated and began the process of integration. The group used interviews conducted during the previous summer and interim to write features and create an exhibit about the story of integration, not from an institutional perspective, but from the experiences of those who lived it.

**Faculty collaborator and mentor:** Dr. Dwain Pruitt '95, chief equity officer and vice president of community initiatives



**Garrett Dall '26** is a chemistry major on the pre-med track from Easton, Kansas. He was part of the P188 Poloxamer Project at Furman University on a National Science Foundation-Research Experience for Undergraduates grant. He worked with students from Wofford, Furman and the Medical University of South Carolina. This project's goal was to synthesize a drug that could be used to aid in recovery from treatments such as radiation and chemotherapy. Garrett worked in the group to help modify end groups of the poloxamer. These end groups are molecules that have antioxidant and radioprotective properties that can assist in eliminating free radicals inside your body and help block out any excess radiation entering your body. Caffeic acid was the main molecule on which he focused over the summer.

**Faculty collaborator and mentor:** Dr. Robert Harris '09, assistant professor of chemistry.



**Grace deMaine '25**, a native of Greer, South Carolina, is a double major in religious studies and government with a concentration in American politics and a business minor. She participated in research exploring the intersections of end-of-life care, religious and spiritual diversity, and cultural competence in healthcare settings. Her research focused on the caregivers guiding their loved ones or patients through palliative and hospice care, with a specific emphasis on how to best communicate to, and advocate for, those nearing the end of their life.

**Faculty collaborator and mentor:** Dr. Katherine (Trina) Janiec Jones, professor and department chair of religious studies.



**Nevaeh Dominick '27** of Spartanburg, South Carolina, plans to major in biology. She researched stalking, harassment and sexual assault of female characters in Seth MacFarlane's *The Orville*, along with sexist language under the guise of humor. After the initial research, she helped put together a bibliography about AI-human relationships.

**Faculty collaborator and mentor:** Dr. Natalie Grinnell, Reeves Family Professor in Humanities and professor of English.



**Cassie Drew '26** is an English and philosophy double major from Columbia, South Carolina. She worked with Dr. Karl Adam on philosophical research outlining the pro tanto wrong of disability selective abortion. This includes arguing that there is a more fundamental objection to disability selective abortion than the purely expressivist point that has prevailed in the discussion, instead framing it as a discrimination issue. This would also maintain a broadly pro-choice outlook. The goal of this project is to form a deeper, more thoughtful dialog about disability selective abortion.

**Faculty collaborator and mentor:** Dr. Karl Adam, James and Susan Keller Teaching Fellow.





**Isabelle "Izzy" Dugle '25**, is a psychology major from Greenville, South Carolina. She worked with a team on two projects related to mood, emotion and cognition. She finished analyzing data on the impact of emotionally arousing images on physiological variables and memory. The team began writing the paper and will finish the study soon. She has been working on this project since Interim of 2023. She hopes the research findings will contribute to the broader scientific community and expand on previous findings related to emotion and cognition. She also worked with the research team to test participants and analyze data regarding the effects of mood on cognition, which will continue into the next semester. She has greatly enjoyed expanding her knowledge of cognition and the opportunity to work in a lab setting in preparation for graduate programs. She hopes to pursue a Ph.D. in clinical psychology and believes that undergraduate summer research has greatly helped prepare her for that process.

**Faculty collaborator and mentor:** Dr. Katherine Steinmetz, associate professor of psychology.



**Sterling Embury '26** is a biology major from Knoxville, Tennessee. She worked with two other students to examine coral bleaching on a cellular level through the use of sea anemones. She focused on comparing the number of symbionts present in anemones before and after a temperature-related bleaching event. She also reintroduced symbionts to already-bleached anemones and then exposed them to a bleaching event. These experiments will help identify whether there are differences in the bleaching processes. Understanding how sea anemones undergo bleaching could help save coral reefs from the same problem.

**Faculty collaborator and mentor:** Dr. Geoffrey Mitchell, associate professor of biology.



**Nadia Ferguson '25** is a chemistry major from Spartanburg, South Carolina. She's also working on a minor in sociology and anthropology. Nadia worked on the research project #BlackGirlSouth, which looked into the intersectionality of being Black, a girl and living in the South. This was done through peer review, scholarly readings and comparative literature. Throughout the summer, the team built, and is continuing to build, a space to allow those who identify with #BlackGirlSouth to have a place of understanding. The team successfully created its first podcast and is continuing to develop more content and material.

**Faculty collaborator and mentor:** Dr. Bria Harper, assistant professor of English.



**Jackson Forrest '26** is an international affairs and Spanish major from Atlanta, Georgia. He researched the role of ethnic identity and race in the Spanish Civil War through the lens of Basque nationalism, both in the Basque Country and in refugee and diasporic communities. He read and encoded newspapers from 1936-1937, particularly Euzkadi en Catalunya. He also researched American volunteers in the Spanish Civil War who originated from the Southeast, with specific emphasis on those from Georgia, North Carolina and South Carolina. Jackson is the president of the South Carolina International Relations Association and has presented at previous research conferences, including the Notre Dame Student Peace Conference and the Southeastern Immigration Studies Association Conference.

**Faculty collaborator and mentor:** Dr. Ramón Galiñanes Jr., director of undergraduate research and post-graduate fellowships.



**Grayson Gregg '27** explored the impacts of Doxorubicin on heart development and cardiomyopathy in zebrafish. Doxorubicin Hydrochloride is a commonly used chemotherapy drug that has been linked to heart disease in some patients. Many studies have tested the impacts of heart disease on zebrafish, as they share more than 80% of their DNA with humans and are convenient to work with, as embryos are clear and organs such as the heart are visible. However, there is no consensus on what dose, how long and at what point during development Doxorubicin should be administered to most consistently cause cardiomyopathy and arrhythmia without being lethal. Grayson focused on those three factors to find the method that works best, and then used Q-PCR to analyze the epigenetic impacts of Doxorubicin exposure on various genes, attempting to link the cardiomyopathy seen in affected individuals to differential gene expression.

**Faculty collaborator and mentor:** Dr. Kelli Carroll, assistant professor of biology.



**Mills Ham '27** is a biology major and chemistry and math double minor from Charlotte, North Carolina. She studied folate-binding proteins, which are expressed at high levels in cancerous cells. The basis of many cancer therapy drugs involves inhibiting these proteins. To better understand why and how we can target folate-binding proteins in order to reduce cancer, she purified and analyzed the protein's structure. She also studied the activity of dihydrofolate reductase, an enzyme that is essential for folate metabolism, in the presence of the anti-cancer drug methotrexate. Additionally, she studied the effect of metformin, a newly considered anti-cancer agent, on folate production.

**Faculty collaborator and mentor:** Dr. Ramin Radfar, professor of chemistry.



**Millie Hatchette '26** is a biology and Spanish double major from Spartanburg, South Carolina. She researched the reproductive success of the Eastern Bluebird and the current status of grassland bird species in the Spartanburg area. Throughout the summer, the research team monitored nest boxes at Milliken Arboretum for information on bluebird nesting activity. Data was collected on the number of eggs laid, egg hatching success and fledging success of the hatched young. Eastern Bluebird nestlings were also banded during the season, and their mass and wing measurements were recorded. This study is an ongoing project from years prior that is intended to continue for several years. She is also conducting a study that addresses the concerning decrease in grassland bird species throughout South Carolina. She has conducted song surveys in rural areas in Spartanburg County, hoping to collect data that will show the current state of grassland bird populations in Spartanburg.

**Faculty collaborator and mentor:** Dr. Lori Cruze, associate professor of biology.



**Miles Havard '25** is a sociology and anthropology major from Atlanta, Georgia. He is a Gateway and Bonner Scholar as well as captain of the Wofford Club Soccer Team. He participated in social science research as a continuation of the Resident Perspectives on Employment project completed in 2024. His group worked to identify new perspectives in the communities of Victoria Gardens and Camp Croft Courts. Miles used his established connections made in these communities, as well as prior research experience, to better understand the lives of people who reside in these areas of Spartanburg.

**Faculty collaborator and mentor:** Dr. Alysa Handelsman, assistant professor of anthropology.



**Maggie Head '26** is a chemistry and philosophy major from Lexington, South Carolina. She worked with four other students to develop an understanding Artificial Intelligence and incorporating AI into higher education. She worked with generative AI tools such as ChatGPT

and Claude to gain a better understanding of how AI can be incorporated and used effectively in education and everyday life.

**Faculty collaborator and mentor:** Dr. Kimberly Hall, associate professor of English.



**Promise Henry '25** is a double major in accounting and finance from Cowpens, South Carolina. She worked with Dr. Amanda Olsen on studying the influence of women on boards of firms with a strong environmental, social and governance focus. The research shed light on how the interaction between women and ESG awareness contributes to firm outcomes.

**Faculty collaborator and mentor:** Dr. Amanda Olsen, assistant professor of finance.



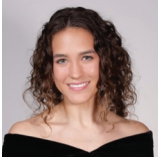
**Alyssa Hines '26** is a biology major from Beaufort, South Carolina. She worked with Dr. Kelli Carroll and two other students to study zebrafish development. Specifically, the team collaborated with researchers at the University of Texas at Dallas to determine how two common pharmaceutical compounds induce defects in zebrafish development and heart function and can induce cardiac arrhythmias.

**Faculty collaborator and mentor:** Dr. Kelli Carroll, assistant professor of biology.



**Reid Jackson '26** is an English major from Greenville, South Carolina. She worked to produce a portfolio of poetry suitable for publication and graduate school applications. During her time, she read and discussed contemporary journals and individual poets in order to understand technique and publishing standards. She also produced exercises based on readings and established a process for writing and revising pieces reflective of her research.

**Faculty collaborator and mentor:** Dr. Patrick Whitfill, associate professor of English.



**Kimber Keene '25** is a studio art and environmental studies double major from Daniel Island, South Carolina. She conducted research related to her work on a February 2025 exhibition as the Whetsell Fellow. She and Professor Jessica Scott-Felder visited museums and art districts in Charlotte, Asheville and Columbia, among other locations. She also read about other artists and their perspectives on art as a way to create a broader range of ideas for each step of making work. She focused on artists interested in the environment, whether that be through their practice of using sustainable materials or through their message. Kimber also read about what art is, including how to define art, including representational art, pushing her understanding of what its purpose is and can be.

**Faculty collaborator and mentor:** Jessica Scott-Felder, associate professor of studio art.



**Foster Kemp '26** is an environmental science and anthropology major from Spartanburg, South Carolina. He led a research team looking at employment and programming within the Victoria Gardens and Camp Croft Courts communities. This is a continuation of the Resident Perspectives on Employment project. The team interviewed residents and hosted listening sessions to identify perspectives on barriers to employment and resources in the communities of Victoria Gardens and Camp Croft Courts.

**Faculty collaborator and mentor:** Dr. Alysa Handelsman, assistant professor of anthropology.



**Lilly Sophie Krick-Aigner '26** is a German and English major with an education minor from Spartanburg, South Carolina. She worked alongside Dr. Rhiannon Leebrick to examine single parenting in academia across multiple institutions. This summer, she worked to compile existing scholarships and research diverse perspectives on this topic. She created an annotated bibliography with various sources and scholarly articles. With this information, they

will search for and identify scholars to write and submit personal essays on their subject. The next step in their project is to assemble a literature review to create an edited volume of the collection of essays focusing on peer-reviewed research on single parenting.

**Faculty collaborator and mentor:** Dr. Rhiannon Leebrick, associate professor of sociology and anthropology.



**Nathan Krueger '26** is a biology major from Birmingham, Alabama. He worked with Dr. Geoffrey Mitchell and two other students to explore the cellular mechanisms of coral bleaching. The project examined the roles of bacteria in heat-evolved coral symbiotes to combat rising temperatures resulting in mass coral bleaching.

**Faculty collaborator and mentor:** Dr. Geoffrey Mitchell, associate professor of biology.



**Karina Nava '25** is a Spanish and sociology/anthropology major from Greenville, South Carolina. She worked on a research project focused on the use of Afro-Brazilian and Afro-Puerto Rican dances by marginalized communities as a form of activism and/or social protest. She conducted onsite research in Salvador, Brazil, and San Juan, Puerto Rico, to gain firsthand experience about how Afro-Latin musical groups use dance as a shared act of resistance to raise awareness and help bring about social change. As a result of the research, she produced an annotated bibliography of the sources used, a website dedicated to illustrating the connection between Afro-Latin dances and social activism, a conference paper, and Afro-Brazilian and Afro-Puerto Rican cultural modules that Dr. Camille Bethea can use in her Latin American Studies seminar courses.

**Faculty collaborator and mentor:** Dr. Camille Bethea '91, professor of Spanish.



**Jordan Page '26** is an accounting major from Darlington, South Carolina. She conducted research about the philosophic implications of psychogenic pain — physical pain “syndromes” such as lower back pain, knee pain and sciatic pain that lack clear structural/physical causes and are strongly correlated with emotional conditions like anxiety and depression. This work was inspired by and based on Dr. John E. Sarno’s book, *Healing Back Pain*, in which he wrote about his research on tension myoneural syndrome (TMS). After working to understand Sarno’s theory on TMS, she reviewed medical and psychological studies on outcomes for elective pain-related surgeries and on the roles of emotional and psychophysiological factors. The guiding hypothesis for this project was that elective surgeries for pain syndromes will have poor outcomes compared with the outcomes of standard surgeries with clear-cut underlying medical causes (like hernia or bone fracture) because the former surgeries are not addressing the underlying cause of the pain, which is emotional and psychological rather than structural or anatomical. To conclude the project, she considered the implications of her findings for a revised understanding of the relationship between mind and body in the production of pain.

**Faculty collaborator and mentor:** Dr. Stephen Michelman, professor of philosophy.



**Ellis Parsons '26** is a history and international affairs double major from Landrum, South Carolina. With Dr. Daniel Helman, he researched the origins of life on Earth and the potential for life on icy worlds due to the concentration and functionality of RNA in ice. His work involved stressing the ice to mimic gravitational effects and experimenting with salt combinations to generate electricity. He did this by designing salt recipes and freezing regimes to conduct the experiments. Through this research, he hopes to apply the knowledge gained in piezoelectricity and abiogenesis to international affairs and the implications of environmental changes on international politics and governance interworking.

**Faculty collaborator and mentor:** Dr. Daniel Helman, visiting assistant professor of environmental studies.





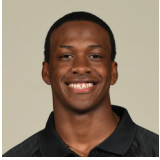
**Olivia Pechin '25** is an art history and sociology and anthropology double major from Greenville, South Carolina. She explored interreligious experiences in South Carolina and focused on Jewish history in the state. She investigated the beginnings of Judaism in Charleston in the 18th and 19th centuries, and then the evolution of Judaism in the upstate from the 20th century to the present day. She focused on the reform movement and gender relations within Judaism. Her research consisted of interviews, reviewing archives and visits to synagogues in the state. She hopes that her research will preserve the Jewish history of South Carolina for others to appreciate and learn from.

**Faculty collaborator and mentor:** Dr. Philip Dorroll, associate professor of religion.



**Hayden Pendergrass '26** is a Spanish and psychology double major with a double minor in sociology/ anthropology and government. He is from Columbia, South Carolina. Hayden worked with four other students to highlight the Black experience of Wofford College through oral history — the extent of the research is from the integration of Wofford in 1964 through the early 1990s. The stories of students, faculty and staff are narrated and recorded to be exhibited. Based on the interview, features were written to capture the essence of the person. The project gives opportunities for past students, faculty and staff to reflect on their experience at Wofford and the changes that have come with time.

**Faculty collaborator and mentor:** Dr. Dwain Pruitt '95, chief equity officer and vice president of community initiatives.



**Kyle Pinnix '25** is a sociology and anthropology major from Reidsville, North Carolina. He is participating in ongoing research on public housing and employment in Spartanburg, South Carolina. This qualitative research began at the Prince Hall apartments and has later grown to other complexes such as Victoria Gardens and Camp Croft. This research will be used to give Spartanburg Housing information on resources that residents of these communities may want or need that could help them get jobs or help them keep their jobs.

**Faculty collaborator and mentor:** Dr. Alysa Handelsman, assistant professor of anthropology.



**Kate Podrebarac '26** is a computer science and applied mathematics major with a French and Francophone studies minor. Kate is from Friendswood, Texas. She worked with four other students to develop an understanding of humanistic AI. She worked with generative AI tools such as ChatGPT and Claude to gain a better understanding of the ways artificial intelligence can be effectively used in education and everyday life.

**Faculty collaborator and mentor:** Dr. Kimberly Hall, associate professor of English.



**Lilia Reihis '25** is a psychology and Spanish double major with a minor in education from Kilmarnock, Virginia. She was part of a team that worked on two studies related to emotion, mood and cognition. After analyzing data related to the impact of emotional stimuli on physiological variables, the team will write the paper and complete the study. She has been working on this project since the fall of 2022, and the team hopes its findings will expand on previous literature suggesting that paced breathing impacts cognition and physiological responses. The team also continued to test participants and analyze the impact of mood on cognition, work that will continue to develop this upcoming semester. She has enjoyed analyzing heart rate and respiration data while expanding her knowledge of cognition.

**Faculty collaborator and mentor:** Dr. Katherine Steinmetz, associate professor of psychology.



**Millie Rice '26** is a government and philosophy double major with a concentration in American politics from Mount Pleasant, South Carolina. She researched the development of the president's authority to restore domestic order during times of insurrection, rebellion and lawlessness. Focusing on the Gilded Age, she explored presidents Grover Cleveland and Benjamin Harrison's uses of federal military intervention to quell domestic disturbances. Her research included reviewing biographies, archival research in Washington D.C. and coding documents.

**Faculty collaborator and mentor:** Dr. Sam Fontaine, assistant professor of government and international affairs.



**Jose F. Ruiz Torres '26** is a Spanish and international affairs double major, with a concentration in Middle Eastern and North African (MENA) Studies. He is from Lilburn, Georgia. His team researched the role of ethnic identity and nationalism in the Basque Country and Basque diasporic communities, specifically during the Spanish Civil War. He read and encoded articles printed in 1936 and 1937 from Euzkadi en Catalunya, a Catalan-Basque newspaper. He also researched the dual topic of Americans from the Deep South who volunteered to be in the Spanish Civil War, focusing on those from Georgia, North Carolina and South Carolina.

**Faculty collaborator and mentor:** Dr. Ramón Galiñanes Jr., director of undergraduate research and post-graduate fellowships.



**Devin Ruppe '26** is a triple major in mathematics, physics and chemistry, with concentrations in biochemistry, applied math and computational science and is a part of the data science program. He is from Gaffney, South Carolina. He researched the effects of known mutations from a selected strain of algae on maintenance of their symbiosis with coral. He used novel software to predict and model the structures of approximately 600 proteins, then used lab techniques to purify some of these constructs and test their effects on thermal stability. This could lead to valuable insights into what cellular mechanisms are important to conserve symbiosis under thermal stress.

**Faculty collaborator and mentor:** Dr. Lee Cato, visiting assistant professor of biology.



**Will Rush '26** is an economics major from Pinehurst, North Carolina. He continued research to develop and refine a system to gather, organize and interpret stats for the Wofford women's basketball team with the goal of maximizing the team's performance. After using code to categorize the data from the play-by-plays, he used the information to create graphics for analyzing important stats such as offensive and defensive team lineup efficiency. Will worked in real time with the women's team last season and plans to continue to work with them this upcoming season.

**Faculty collaborator and mentor:** Dr. Timothy Bersak, associate professor and chair of economics.



**Juan Salas '27** is double majoring in computer science and applied mathematics. He is from Charlotte, North Carolina. He collaborated with a team of three under Dr. John MacCarthy to research and collect data on the energy generation, transmission, storage and environment of the Upstate South Carolina Electrical Energy System (UEES). He has processed more than 10,000 data points, and his primary focus has been on users, the system's environment and energy storage. Part of the team's work included developing an interactive SysML model to illustrate the SC UEES, which aims to

educate college and high school students, as well as the general public, about the region's electrical energy system. Additionally, the team worked on creating a tool for use by energy policy decision-makers to facilitate life cycle cost analysis, cost-effectiveness analysis, reliability assessments and emissions analysis. The team also explored potential future extensions for the UEES model, including renewable energy integration, higher resolution models and the framework for a digital twin. Those efforts emphasized the system's adaptability and scalability, ensuring it meets the evolving needs of the region.

**Faculty collaborator and mentor:** Dr. John MacCarthy, adjunct lecturer of physics.



**Graham Segars '25** is an environmental studies major from Lexington, South Carolina. His research focused on the potential for life emergence on icy worlds within our solar system. The project involved simulating icy environments using water ice with various salts to explore the potential for life. By stressing the ice to mimic gravitational effects and experimenting with salt combinations to generate electricity, the research aimed to understand proto-metabolism and the generation of complex organic molecules, akin to the Miller-Urey experiment. Through this unique and engaging experiment, Graham gained valuable practical skills in abiogenesis and condensed matter physics, including piezoelectricity. This research is an exciting and creative endeavor that nurtures academic growth and camaraderie, reflecting the innovative spirit of planetary and environmental science at Wofford College.

**Faculty collaborator and mentor:** Dr. Daniel Helman, visiting assistant professor of environmental studies.



**Bronson Shahbahrami '27** is a biology major from Lexington, South Carolina. He worked with a team to monitor nest boxes in the Milliken arboretum. This project aims to develop an understanding of the reproduction of Eastern Bluebirds concerning seasonal variation. Eligible nestlings were banded for identification, and their mass and wing length were recorded. A procedure to sex the nestling using samples gathered during banding was developed throughout the summer as well.

**Faculty collaborator and mentor:** Dr. Lori Cruze, associate professor of biology.



**Gannon Shepard '25** is an accounting major from Spartanburg, South Carolina. He worked with Dr. Ezgi Ferrand, completing market research for the Charleston-based medical device company BabyStrong. The goal of this project was to help BabyStrong formulate a go-to-market strategy for its new medical device. This medical device is used to combat feeding or SSB (suck-swallow-breathing) issues post-birth, primarily targeting preterm infants.

**Faculty collaborator and mentor:** Dr. Ezgi Akpinar Ferrand, assistant professor of marketing.



**Katie Stewart '26** is double majoring in psychology and environmental studies. She is from Hartsville, South Carolina. For the past academic year, she has focused on quantitative data analysis and ecology. To continue this track, she partnered with Dr. Jennifer Bradham to study plant growth in the Pantanal of Brazil. They traveled to the Brazilian jungle to learn how herbivores affect new plant growth. During their time in the field, they tagged more than 200 plants and built 28 new plots. After returning from the field, they used the data collected to run a series of models in RStudio to look for possible relationships between animal movement, canopy cover and plant growth.

**Faculty collaborator and mentor:** Dr. Jennifer Bradham, assistant professor of environmental studies.



**McCarver Stokes '26** is an art history major from Richmond, Virginia. He worked independently on researching a Baroque flower painting owned by Wofford College's expanding collection of artworks. His research was guided through the lenses of economics, religion and aesthetics, and he explored how an unsuspecting and unnamed flower painting can grant so much insight into 17th century Flemish culture and commerce. The project concluded with a research paper and bibliography that he hopes to present or publish in the future.

**Faculty collaborator and mentor:** Dr. Karen Goodchild, Chapman Family Professor of Teaching Excellence and interim coordinator for the Department of Art and History.



**John Luke Taylor '27** is a sophomore from Pinehurst, North Carolina, who plans to major in psychology and minor in international affairs. He was part of a team of dedicated student researchers working to fill crucial gaps in Wofford's recorded history, contributing to ongoing campus conversations on equity, diversity and inclusion. Under the guidance of Dr. Dwain Pruitt, Taylor and his peers collected and documented the stories of Black alumni from the late 1960s through the late 1980s. The initiative is part of the Reframing Institutional Saga project, funded by the Network for Vocation in Undergraduate Education (NetVUE) through the Lilly Endowment. The project aimed to update the history and mission of Wofford College to reflect contemporary contexts and narratives. John Luke and the other student researchers spent 10 weeks learning the art of recording oral history, fact-checking and effective storytelling. Through their diligent work, Taylor and the team not only recorded history — they made it, ensuring a more inclusive and representative narrative for future generations of Wofford students.

**Faculty collaborator and mentor:** Dr. Dwain Pruitt '95, chief equity officer and vice president of community initiatives.



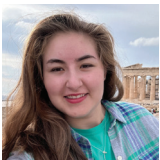
**Whit Theo '25** is a triple major in mathematics (applied), computer science and physics. He is from Moore, South Carolina. He worked with two teammates to develop a systems engineering model of the Upstate Electrical Energy System. The model was built using a computer software known as SysML. Whit was the designated model leader in charge of bringing the entire model together and keeping track of any changes made to it. The team hopes the model will be used in legislation surrounding energy development, schools and power companies.

**Faculty collaborator and mentor:** Dr. John MacCarthy, adjunct lecturer of physics.



**Josie Thillet '26** is a double major in English and theatre from Charlotte, North Carolina. She engaged in self-research as a member of the campus Writing Center staff, focusing on how attendance at a Writing Center session is related to a visitor's sense of confidence in their own writing. Her project used data gathered from a feedback form attached to the existing session form and the content of interviews with individuals who had not participated in a Writing Center session, as well as information from existing literature on the subject. The goal of this project is to reflect on and improve the current practices of the Writing Center through knowledge of its perception on campus and the writing of experts in the field.

**Faculty collaborator and mentor:** Dr. Allison Douglas, assistant professor of English.



**Bobbi Timmerman '26** is majoring in applied mathematics with a concentration in physics. She is from Aiken, South Carolina. Bobbi worked with two other student researchers and Dr. John MacCarthy to provide a report and SysML model of the Upstate South Carolina power grid. She was tasked with organizing, analyzing, compiling and modeling the distribution and transmission elements of the team's model. She helped identify and model more than 50 transmission lines and more than 200 substations in the Upstate, using two major map



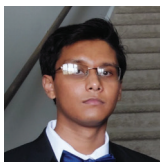
databases, ARCGIS and CMRA. She gained significant knowledge on the inner workings of the way power travels geographically. The type of information the research group gathered had never been compiled before. She hopes their research will make an impact on the comparison of renewable resources and fossil fuels. The group will present its findings to EPSCoR, Wofford classes and a few rotary clubs.

**Faculty collaborator and mentor:** Dr. John MacCarthy, adjunct lecturer of physics.



**Sam Turnipseed '25** is an English and philosophy major and film and digital media minor from Columbia, South Carolina. He worked with four other students to help Wofford and other liberal arts institutions develop an understanding of generative AI tools like ChatGPT and pave an avenue for the ways that AI can be effectively incorporated into higher education without deterring the development of the skills that liberal arts institutions aim to cultivate. They did this by conducting human interviews and experiments, and by conducting experiments using AI to test its abilities as well as the level of humanity that exists within AI. The results of this research will help Wofford and other institutions beneficially and effectively approach the use of AI on their campuses.

**Faculty collaborator and mentor:** Dr. Kimberly Hall, associate professor of English.



**Aayush Verma '26** is a biology and Spanish dual major from Greenville, South Carolina. He worked with students from Wofford, Furman and the Medical University of South Carolina in the P188 Poloxamer Project at Furman University on an NSF REU research grant. The project focused on the synthesis of a drug that could protect cell membranes in cases of radiation and burn wounds. His research focused on end-group modification of the drug to increase the antioxidant ability of the drug.

**Faculty collaborator and mentor:** Dr. Robert Harris '09, assistant professor of chemistry.



**Katie Watson '25** is a biology major and studio art minor from Greer, South Carolina. She contributed to an ongoing research project funded by the National Science Foundation that implements anemones as a model to explore the mechanisms of coral bleaching. Rising seawater temperatures and changing environmental conditions have led to bleaching of reefs on a global scale, and stress from bleaching events can cause corals to expel the algal symbionts they depend on. She worked to determine whether rapidly dividing symbiont cells were more likely to be expelled from their anemone hosts by identifying the dividing cells with fluorescent staining. The results of this research could eventually lead to strategies for better protecting coral reefs after bleaching episodes as they undergo recovery.

**Faculty collaborator and mentor:** Dr. Geoffrey Mitchell, associate professor of biology.



**Rivers West '25** is an environmental studies major with a film and digital media minor from Oak Ridge, North Carolina. He worked with four other students to collect information on how students are using artificial intelligence in their education and their ethical perceptions of such. They designed an experiment to gauge how effective common uses truly are for cognitive growth and educational development. He worked with generative AI tools such as ChatGPT and Claude to gain a better understanding of the ways artificial intelligence can be effectively used in education and everyday life.

**Faculty collaborator and mentor:** Dr. Kimberly Hall, associate professor of English.



**Emma Williams '26** is a biology major from Charlotte, North Carolina. She participated in biochemistry research. Her team researched folate-binding proteins that have become the molecular target for the development of many cancer therapeutics and inhibitors. Folate-binding proteins (FBP) or folate receptors are expressed at low levels in most tissues. FBP are expressed at high levels in numerous cancers to meet the folate demand of rapidly

dividing cells. In this research, she worked to purify folate-binding proteins from cow's milk and recombinant cells. After purifying this protein, the team studied specific inhibitors of FBP that could possibly be promising drugs when combined with anticancer agents, in cancer therapy.

**Faculty collaborator and mentor:** Dr. Ramin Radfar, professor of chemistry.



**Taylor Woodruff '27** is a biology and sociology/anthropology double major on the pre-med track from Spartanburg, South Carolina. She worked on the research project #BlackGirlSouth. Through a podcast, her research team unravels the intersectionality of various social identities within Black girls, while shedding light on how these identities shape and influence our experiences. Throughout the summer, the team embraced a journey to understand and celebrate the resilience, strength and diversity within the Black girl community.

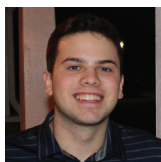
**Faculty collaborator and mentor:** Dr. Bria Harper, assistant professor of English.

## NSF REU STUDENTS AND OTHER STUDENT-SCHOLARS RESEARCHING AWAY FROM CAMPUS

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**Lillian Frey '25** is a mathematics major with a minor in religion. Lillian is from Columbia, South Carolina. This summer, she participated in a National Weather Center (NWC) Research Experience for Undergraduates (REU) program at the University of Oklahoma. She worked in the National Oceanic and Atmospheric Administration's National Severe Storms Laboratory, evaluating thunderstorm rotation in 1- and 3-kilometer versions of the experimental Warn-on-Forecast System (WoFS). The purpose of WoFS is to provide probabilistic guidance to National Weather Service forecasters. Her team used an object-based verification method and contingency table statistics to assess the skill of WoFS-1km to accurately predict rotation within thunderstorms. The purpose of the project is to determine how WoFS-1km detects rotation in comparison to WoFS-3km, and to use the findings to determine whether the increase in performance of WoFS-1km is worth the computational cost.



**Matthew Lopez '25** is a biology major with minors in sociology/anthropology and chemistry from Greer, South Carolina. He worked at the University of Iowa as part of a National Science Foundation REU-funded program. He examined the post-transcriptional regulator protein CsrA in *Acinetobacter baumannii*, a hospital-associated pathogen that is commonly resistant to multiple antibiotics. This protein has been shown to be essential for desiccation resistance and growth in human urine. His work focused on the identification of small RNA molecules that may regulate CsrA. He plans to apply for graduate school to pursue a Ph.D. in microbiology.

**Faculty collaborator and mentor:** Dr. Michael Gebhardt, assistant professor of microbiology and immunology, University of Iowa.



**Hope Moreno '25** is a biology major and education minor from Spartanburg, South Carolina. She worked at the Medical University of South Carolina in a lab that focuses on discovering and developing drugs from natural products, specifically plants and invertebrate microbiomes. Her project focused on the extraction of platanoside, a compound made up of a mixture of four geometric isomers that has the potential to be developed into an antibiotic that treats sepsis caused by antimicrobial resistant bacteria like MRSA.

**Mentor:** Dr. Mark T Hamann.



**Emily Schwendemann '25** is a physics, mathematics and computer science major with a minor in music from Fountain Inn, South Carolina. During research at Clemson University through the NASA SC Space Grant Consortium, she worked to optimize the recovery of elements such as nitrogen, phosphorus and carbon from waste. The team studied the quantitative production of ammonia from synthetic urine and the production of hydrogen peroxide through ion transfer within an electrochemical cell.

**Faculty collaborator and mentor:** Dr. Sudeep Popat, assistant professor of environmental engineering, Clemson University.



**Anthony Tarulli '25** is a double major in biology and environmental studies on the pre-med track from Bluffton, South Carolina. His research was a 10-week program at Virginia Tech working under Dr. Emily Mevers in the Mevers Lab at Virginia Tech. Primarily, his research focused on the microbiome of Moon Snail egg collars collected in Puerto Rico and along the eastern coast of the United States. Research integrated multiple disciplines such as microbiology, biochemistry, analytical chemistry and computer science. His specific research focus was on the competition of the core microbiome within these Moon Snail collars, specifically strains of Flavobacteria, Pseudoalteromonas and Ruegeria. The main goals of his project were to assess intra-competition between these strains using intruder assays, fractionating these environmental compounds and extracting to reveal any undiscovered secondary metabolites that could possibly be used in medicine.

**Faculty collaborator and mentor:** Dr. Emily Mevers, assistant professor of chemistry, Virginia Tech.



**Lindsey Vane '25** is a biology major and chemistry minor from Columbia, South Carolina. She worked at Mississippi State University as a part of an NSF-REU program. She worked with engineered biochar for the removal of phosphorus from stormwater runoff. Her research focused on characterizing the biochar, analyzing its field applications and enhancing the existing method of the engineering process.

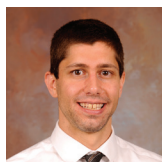
**Faculty collaborators and mentors:** Dr. Todd Mlsna, professor of chemistry, Mississippi State University, and Dr. Timothy Schauwecker, professor of landscape agriculture, Mississippi State University.



**Kleo Young '25** is a double major in biology and chemistry with a concentration in biochemistry. Kleo is from Anderson, South Carolina. He spent his summer in an NSF REU program at the University of North Carolina Chapel Hill synthesizing polymers. His research aimed to create new polymers with enhanced electrolytic capabilities to be used as electrolytes in lithium batteries. He learned new techniques such as running automated columns, gel permeation chromatography, nuclear magnetic resonance and infrared spectroscopy.

## FACULTY BIOGRAPHIES

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**Dr. Tim Bersak**, associate professor and chair of the Economics Department, is originally from Denver, Colorado. He completed bachelor's degrees in economics and health sciences at Boston University before earning his master's in economics from Clemson in 2012 and his Ph.D. in economics from Clemson in 2015. Much of his research focuses on healthcare, health insurance and the production of infant and early childhood health. An avid sports fan, he also enjoys applying the tools of applied microeconomics analysis to other settings.



**Dr. Camille Bethea '91**, professor of Spanish and coordinator of the Latin American Studies program, holds bachelor's degrees in Spanish and psychology from Wofford College, a master's degree in Latin American Studies from Vanderbilt University, and a master's degree and Ph.D. in Spanish and Latin American literature from UNC-Chapel Hill. Her areas of research include the Twentieth Century Latin American narrative with an area focus on Mexico and exploring methodologies and creative pedagogies in the teaching of language, culture and literature. As the instructor of the Latin American program seminar courses, her teaching includes topics on the peoples and cultures of Latin America, the legacy of slavery and colonialism, power dynamics, Afro-Latino identities, and the African Diaspora as it pertains to Latin America and the American South.



**Dr. Jennifer Bradham**, assistant professor of environmental studies, earned a bachelor's degree from the College of Charleston, a master's from the University of California, Santa Barbara, and a Ph.D. from Vanderbilt University. She is a quantitative ecologist who evaluates how large mammals interact with their environment and how the interactions may be altered in response to anthropogenic land use modification and climate change. While most of her research occurs in the Neotropics, she also has developed a local research program based in data science and focused on equity. In collaboration with incredible Wofford colleagues and community partnerships, this work has included interdisciplinary assessments of greenspace equity and quantifying the impacts of condemned and abandoned properties, among other ongoing projects.



**Dr. Kelli Carroll**, assistant professor of biology, graduated from Davidson College with a major in biology and a concentration in neuroscience. She completed her Ph.D. in developmental and regenerative biology at Harvard University, where her work focused on the role of estrogen signaling in the induction, specification and proliferation of hematopoietic (blood) stem cells. She then completed a postdoctoral fellowship in the Molecular Biology department at the University of Texas Southwestern Medical Center, where she developed a method for postnatal cardiac gene editing using CRISPR/Cas9 and investigated the role of several uncharacterized genes in cardiac and skeletal muscle development and function. After spending four years on the faculty at Austin College, she joined Wofford in 2023. She has an ongoing collaboration with a bioengineering lab at the University of Texas at Dallas investigating the use of zebrafish as a model system to study cardiac arrhythmias. In addition, her lab uses patient data to characterize the role of genetic mutations in pediatric congenital disorders.





**Dr. Matthew Cathey**, professor of mathematics, earned a bachelor's degree in mathematics and music from the University of the South (Sewanee), a Ph.D. in discrete geometry from the University of Tennessee and a master's in statistics from Texas A&M University. His research interests lie where mathematics and statistics intersect with other disciplines, especially history. In addition to coauthoring two textbooks for undergraduates, Dr. Cathey has also contributed to publications in biology, veterinary science, psychology, physics and professional wrestling.



**Dr. Michael Cato**, visiting assistant professor of biology, graduated with a bachelor's degree in biology from Wofford College and received his Ph.D. in biochemistry, cell biology and developmental biology from Emory University. His graduate work focused on using computational and biochemical approaches to characterize small molecules targeting a class of proteins called nuclear receptors. Dr. Cato currently teaches courses in biochemistry, nutrition and genetics. His research is centered on studying how changes in biological systems are driven at the molecular level by structural changes in critical proteins, connecting the evolution of organisms to changes in protein function. Currently, he is exploring the molecular basis for resistance to coral bleaching, aiming to leverage recent innovations in computational approaches to enhance studies of protein stability.



**Dr. Lori Cruze**, associate professor of biology, earned a bachelor's degree from the University of Tennessee and a Ph.D. from the University of Florida. Prior to joining the faculty at Wofford College in 2015, she was a research professor in the department of obstetrics and gynecology at the Medical University of South Carolina. Cruze is a reproductive biologist by training and is broadly interested in reproductive physiology, endocrinology and ecotoxicology. Her latest research focuses on the reproductive biology of local songbird species.



**Dr. Allison Douglass**, assistant professor of English and director of Wofford's Writing Center, earned her bachelor's degree from Vassar College, her master's from Midwestern State University and her Ph.D. in English from the Graduate Center of the City University of New York. At Wofford, she teaches courses on rhetoric, gender and sexuality, humor, games and post-WWII American culture. Her research focuses on the role of play in creativity and expression, including research interests in cultural analysis of playful forms like stand-up comedy and drag performance, as well as pedagogical research on ways to harness the creative potential of the ludic in the classroom. She has published on gamification in rhetoric and composition courses, and her first major book project is on the relationships between LGBT+ performance histories and the history of the American comedy industry. With the staff at the Writing Center, she is working to build a student-led, collaborative process of regular self-study that will inform the direction of the Center's pedagogy and programming.



**Dr. Phil Dorroll**, associate professor of religion, holds a Ph.D. in religion from Emory University. His work focuses on Sunni Islamic theology in classical Arabic and modern Turkish, and the history of interactions between Eastern Christianity and Islam. He also is currently researching the earliest Arabic manuscripts produced by enslaved Muslims in the Carolinas.



**Dr. Ezgi Ferrand**, assistant professor of marketing, has a master's degree in marketing from Clemson University and a Ph.D. in geography from the University of Cincinnati. She has a specialty in market research and unlocking business funding. Her research interest areas include business intelligence and startup go-to-market strategies. She was the co-founder and director of Clemson University's SBDC Student Consultant Center. She was also a small business owner in South Carolina, owning a bakery with locations in Clemson and Greenville from 2015 to 2019.



**Dr. Sam Fontaine**, assistant professor of government and international affairs, is originally from Asheville, North Carolina. He completed bachelor's degrees in political science and history at the University of North Carolina, Asheville, before earning a master's and Ph.D. in political science from the University of California, Santa Barbara. Dr. Fontaine studies American political development and institutions, focusing on the U.S. presidency, Congress, political parties, and civil and military bureaucracies. His latest research examines how presidential management of domestic disorders contributed to the development of the law-and-order presidency. Before pursuing his Ph.D., Dr. Fontaine served as an AmeriCorps VISTA member in western North Carolina, where he helped create community school programs to support low-income students and families. As a first-generation college graduate, Dr. Fontaine enjoys helping students develop a passion for learning and engaged citizenship.



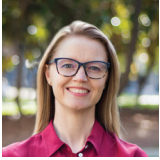
**Dr. Ramón Galiñanes Jr.** is the director of undergraduate research and post-graduate fellowships at Wofford College. He holds a bachelor's degree in history from Montclair State University, a master's of philosophy in politics, democracy and education from the University of Cambridge (England) and a master's degree and Ph.D. in political science from the University of Florida. His research examines questions about civil conflict, democratization, migration, civic engagement, ethnic politics and social movements. He has received grants and fellowships from the American Political Science Association, the National Security Education Program, the U.S. State Department of Education Foreign Language and Area Studies Program and the Gates Cambridge Trust. Galiñanes has taught social science and humanities courses and has organized and directed several study-away courses in Washington, D.C., and New York City. Galiñanes is a first-generation college student who is passionate about encouraging and empowering students to develop as scholars and civic leaders.



**Dr. Karen Goodchild**, Chapman Family Professor of Teaching Excellence and interim coordinator, avidly pursues research and wants to share that passion with students. Currently, she is finishing an article tying the important 16th century art theorist Giorgio Vasari to developments in garden theory in the 16th century. This article will be published in the premier English language garden journal, *Studies in the History of Gardens & Designed Landscapes*, after which she will finish an article investigating the way comic literature of the 16th century reflected the real material environment and semi-fictional artistic history of Florence. As a research mentor, she oversees all art history capstone projects and has been a mentor for her department's recent honors projects as well as for several South Carolina Independent Colleges and Universities (SCICU) research projects, and many independent studies.



**Dr. Natalie Grinnell** is a Reeves Family Professor in Humanities and professor of English. She has taught at Wofford College since 1997. Her major areas of research and publication are medieval studies, gender studies, and fantasy and science fiction. Currently president of the Southeastern Medieval Association, Dr. Grinnell is a section editor for the Palgrave Encyclopedia of Women Writing in the Global Middle Ages, as well as a board member for the New Queer Medievalisms series for Medieval Institute Publications. Recent publications include “‘[H]e, which can no pite know’: Murdered Children in the *Confessio Amantis*” for the journal *Investigo*, and “The Challenge to Dominance Theory in Patricia Briggs’ and Carrie Vaughn’s Paranormal Romance Novels” for *Femspec*. Her work with student Willow Conley as part of Wofford’s Summer Research program in 2022 resulted in a co-written article, “The Queer Temporality of Gail Carriger’s *Parasol Protectorate*,” which appeared in the *Journal of the Fantastic in the Arts* in December 2023.



**Dr. Kimberly Hall**, associate professor of English and digital media studies, earned her bachelor's degree in English from George Mason University, a master's in English from Georgetown University and a Ph.D. in English from the University of California, Riverside. In 2024, she received the Philip Covington Award for Excellence in the Teaching of the Humanities and Social Sciences. Her research focuses on discourses of selfhood in social media, and she has published articles on the Facebook apology after the Cambridge Analytica scandal, cue card confession videos on YouTube and the politics of authenticity for lifestyle bloggers. Her more recent work has explored the impact of generative AI on teaching and learning, and she was excited to expand her work in this area with her research students this summer.



**Dr. Alysa Handelsman** has been engaged in ethnographic research projects in Ecuador for the past two decades, focusing specifically on children and youth cultures and publishing on girlhood, motherhood, poverty and decolonial research design. Since she moved to Spartanburg in 2018, she has engaged in Spartanburg-centered programming and research projects. Her Community Sustainability Seminar runs more than 20 programs across the city and parts of the county in partnership with a series of local schools and organizations. Her first collaborative faculty-student research grant was awarded during the summer of 2022, and that opportunity led to two years of actively working with community partners in the Una, Saxon and Arcadia neighborhoods to study the intersection of condemned properties and neighborhood wellness. Last summer, she was part of a research team that looked at development in the Drayton community from the perspective of its residents. She is currently working with Spartanburg Housing and a team of Wofford students to better understand resident perspectives on employment across public housing communities in Spartanburg. Handelsman is also part of a mixed-methods research team engaged in a multiyear project across District 7 schools that explores how youth imagine the future of their neighborhoods. Handelsman was named the 2019 Paul Harris Fellow by the North Spartanburg Rotary Club. She received the Sullivan Foundation's 2023 Faculty Regional Service Award. Handelsman was featured at the 2023 Mary L. Thomas Leadership Luncheon for her civic engagement in Spartanburg, and she was nominated for the Young Democrats of Spartanburg County's 2024 Liz Patterson Civil Service Award. She was also recognized at the Spartanburg County Foundation's Women's History Month exhibit as a "Women's History Maker." Handelsman continues to learn and grow from the transformative power of collaborative research projects with students and community partners and is grateful for another summer funding opportunity. She and her students have been learning so much alongside residents of the Camp Croft and Victoria Housing communities this summer on the city's Southside and Northside.



**Dr. Bria Harper**, assistant professor of English, is originally from Birmingham, Alabama. As an only child, she was surrounded by communities of Black women who nurtured her and sparked her passion for community engagement among Black girls and women. She is a graduate of The University of Alabama with a Bachelor of Arts in English and African American Studies and a master's degree in women's studies. She received her Ph.D. in English from Michigan State University. Her research areas include African American literature, Black feminist thought, Black girlhood studies, popular culture and memory studies.



**Dr. Robert Harris '09**, assistant professor of chemistry, graduated from Wofford College with degrees in chemistry and mathematics. He completed his Ph.D. in organometallic chemistry at Duke University and an HHMI funded postdoctoral fellowship at Emory University, where he studied the mechanisms of transition metal catalyzed carbon-nitrogen bond forming reactions. Before returning to Wofford in 2019, Harris joined the faculty at The College of Wooster as a visiting assistant professor in chemistry. Currently, he has an ongoing collaboration with groups at Furman University and the Medical University of South Carolina. His research interests include curriculum reform in undergraduate chemical education, the development of transition metal complexes to catalyze new reactions in organic chemistry, and the synthesis and modification of polyalkylene oxides with applications as cell healing agents.



**Dr. Daniel S. Helman** is a visiting assistant professor of environmental studies at Wofford College. His scientific research focuses on alternative energy, geology and sustainable development, as well as issues of pedagogy and creativity in teaching science. He holds degrees in aesthetics (bachelor's, UCLA), geology (master's, California State University, Long Beach) and sustainability education (Ph.D., Prescott College). His training includes undergraduate study at an ivy (Cornell University, 1986-1988) and study abroad at an Oxbridge (Cambridge, Robinson College, 1988-1989), as well as a teaching credential for adult schools in California. Dr. Helman lived and taught in Vietnam from 2017-2018 and on the Pacific island of Yap (Federated States of Micronesia) from 2020-2023. When he is not doing science work, he runs a 501(c)(3) non-profit organization, which he set up to help independent scientists. Daniel continues to make art and recently published a play about Hypatia of Alexandria, which first appeared at the 2016 Flagstaff Festival of Science.



**Dr. Katherine (Trina) Janiec Jones** is a professor and department chair of religious studies at Wofford College, where she has taught since 2006. A graduate of Davidson College, she earned her master's degree and Ph.D. in philosophy of religions at the University of Chicago. While her training is in Indian Buddhist philosophy of religion, she has published on topics ranging from the post-9/11 religious studies classroom to multiple religious belonging and hybrid religious identities. Jones teaches courses about Buddhist and Hindu religious traditions, interreligious studies, and the intersections of myth, ritual and culture. Her current research focuses on the intersections of end-of-life care, religion and spirituality, and pluralism. She is currently working on a book about caring for her parents, both of whom experienced dementia in the final years of their lives, and how her training in religious studies refracted her ability to cope with their memory loss and sense of who they were.





**Dr. Rhiannon Leebrick**, associate professor of sociology, earned her bachelor's degree in international studies from Hollins University, her master's degree in public and international affairs from Virginia Tech, and her Ph.D. in sociology from the University of Tennessee. The theme that ties together her work is how privilege and injustice, especially as they relate to the built environment, operate at various scales. She has published in *Southeastern Geographer*, *Current Perspectives in Social Theory*, *Journal of Appalachian Studies* and the *Journal of Outdoor and Environmental Education*. Her current research examines environmental gentrification as a means to understand social change in south central Appalachia and draws upon political economy perspectives within environmental sociology to contextualize this process within global capitalism. Implicit in seemingly local conflicts over community planning, as new places are selectively layered onto existing places, are global economic patterns that reinforce environmental privilege and class and racial discrimination through the maintenance of development ideologies. Other projects include collaborative research that examines the economic impact of outdoor recreation in West Virginia's New River Gorge and related issues of access and inclusivity in outdoor recreation programming. Dr. Leebrick is the 2022-2027 recording secretary for the Southern Sociological Society (SSS) and serves on the SSS Executive Committee.



**Dr. John MacCarthy**, adjunct lecturer of physics, earned a bachelor's degree in physics from Carleton College, a Ph.D. in physics from the University of Notre Dame and a master's in systems engineering from George Mason University. Prior to joining Wofford, he taught physics at Muhlenberg College, worked as a lead systems engineer and manager at TRW and Northrop Grumman, served as an advisor to a high-level Pentagon official and served as the director of the Systems Engineering Education Program at the University of Maryland. He has a lifelong interest in the physics and public policy associated with global warming and climate change. His current research is focused on understanding South Carolina's electrical power system and finding reliable, cost-effective approaches to meeting the state's current and future energy needs without contributing to global warming.



**Dr. Stephen Michelman**, professor of philosophy at Wofford and organizer for South Carolina High School Ethics Bowl, holds a Ph.D. in philosophy from Stony Brook University. His work focuses on existentialism and phenomenology and their intersection with psychoanalytic theory, philosophy of emotion and philosophy of art. His current research involves a psychosomatic theory of chronic pain and its implications for understanding unconscious processes of emotion. He is the author of *Historical Dictionary of Existentialism* and articles on Continental philosophy and psychoanalysis.



**Dr. Geoffrey Mitchell** is an associate professor of biology and associate chair of biology. For his undergraduate education, Dr. Mitchell left his home in Maine and came south to earn a bachelor's degree in biology from Furman University. He went on to pursue a Ph.D. in cancer biology at the University of Arizona, where he studied methods of protecting normal tissues during radiation therapy. At the same university, he worked as a postdoctoral researcher studying cellular decision making. At the end of his postdoctoral appointment, Dr. Mitchell joined the faculty of Colby College as a visiting assistant professor of biology before landing at Wofford.

At Wofford, his research program — driven by his love of the ocean and SCUBA diving — focuses on the pressing environmental problem of coral bleaching that is occurring at an alarming rate across the globe. He and his students have published this work in leading academic journals and presented at regional, national and international conferences.



**Dr. Amanda Olsen**, assistant professor of finance, earned her Ph.D. in finance from the University of Tennessee. Her research interests include environmental, social, governance (ESG) awareness in finance, women’s influence on the firm, and insider trading. She is beginning her third year as a faculty member of Wofford College. She has a passion for preparing students for future careers in finance, which includes teaching about how to conduct research in finance. She looks forward to many more opportunities to passing on her knowledge in the years to come.



**Dr. Dwain C. Pruitt '95** is the college’s chief equity officer and vice president for community initiatives. After completing a bachelor’s degree in French and history at Wofford, he earned his master’s and doctoral degrees in early modern European history at Emory University. In addition to his formal training in 18th century French history, he has done extensive research and writing in African-American and American popular culture history. He has published articles in *French Historical Studies*, *Journal of Colonial History and Colonialism*, *Journal of Graphic Novels and Comics*, and *Sankofa: A Journal of African Children’s and Young Adult Literature*. Chapter-length manuscripts appear in 2017’s *Muslim Superheroes: Comics, Islam and Representation* and in 2023’s *Incivility in Higher Education: The Costs of Bad Behavior*. He has presented at several regional, national and international history and popular culture conferences, including three presentations at the Comics Arts Conference held annually at San Diego Comic Con, and presentations at annual meetings of the American Historical Association, French Historical Studies, French Colonial Historical Society and the Western Society for French History.



**Dr. Ramin Radfar**, professor of chemistry and biochemistry, earned his Ph.D. from the University of South Carolina and subsequently worked for a year at Schering-Plough Research Institute. In August 2001, he joined the faculty at Wofford College, and since then he has supervised summer research projects of more than 40 students. Radfar has excellent experience with expression, purification, protein characterization, crystallization and structural studies of proteins and enzymes.



**Professor Jessica Scott-Felder** is a visual and performance artist from Atlanta, Georgia. She is an assistant professor of studio art and teaches 2-D studio practices in the department of art and art history at Wofford College. She completed her undergraduate studies in studio art at Spelman College, earned a master's degree in drawing, painting and printmaking from Georgia State University and studied experimental printmaking at the Santa Reparata School of Art in Florence, Italy. Her work is featured in private and corporate collections in Spartanburg, Cambridge, the Four Seasons Hotel in Atlanta and New York.



**Dr. Katherine Steinmetz**, associate professor of psychology, received her undergraduate degree in psychology and neuroscience from Allegheny College, where she participated in the neuroscience in the humanities program and wrote a thesis that investigated the electrophysiological changes caused by learning words in emotional contexts. She went on to graduate school at Boston College. Working with Dr. Elizabeth Kensinger, she used neuroimaging (fMRI), eye-tracking, electrophysiological and behavioral techniques to investigate the neural mechanisms that influence memory for emotional events. She also did a post-doctoral fellowship focusing on the influences of stress and sleep on memory at Boston College and Notre Dame. Her laboratory focuses on understanding the neuroscience behind how emotional processing influences attention and memory. By combining

techniques — including behavioral testing, event-related potential (ERP) recordings and salivary hormonal assays techniques — her research examines both the cognitive (thought-level) and neural (brain-level) processes that guide attention toward, and memory for, emotional information. She also is interested in how these processes may be influenced by factors such as stress and anxiety.



**Dr. Patrick Whitfill** is an associate professor of English, with a specialty in creative writing – poetry. His poetry appears in journals such as Boston Review, Kenyon Review, The Threepenny Review and Pembroke Magazine. His collection of poems, *Curiosity*, came out in the New Michigan Press in 2020. His work and research focus on domestic mysticisms, Buddhism and the works of Wes Craven. Currently, he is finishing a collection of poems entitled *Bam, Apocalypse*. Dr. Whitfill holds a Ph.D. in poetry from Texas Tech University. He earned a bachelor’s degree in English literature (British and Commonwealth) from Wayland Baptist University.

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429 N. Church St.  
Spartanburg, S.C. 29306