



Wofford College

**STUDENT-FACULTY COLLABORATIVE
SUMMER RESEARCH**

Summer 2020







STUDENT-FACULTY COLLABORATIVE SUMMER RESEARCH STUDENT BIOGRAPHIES



Carman Autry '22, an international affairs major with a minor in Arabic from Youngsville, N.C., studied the life of Omar ibn Said, an enslaved Black Muslim in the Carolinas. During the five-week research project, she reviewed several works that had been written about Said, including his autobiography, "Life." For her final product she created a brochure to accompany one of Said's manuscripts that is located at the Chapman Cultural Center in Spartanburg, S.C. Her goal for the project was to bring awareness to his life and the importance of understanding the history of Black Muslims in America.

Faculty collaborators and mentors: Dr. Philip Dorroll, associate professor of religion; Dr. Courtney Dorroll, assistant of professor of religion; Professor Colleen Ballance, professor and theatre chair



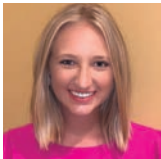
Blake Bagwell '22, a biology major from Greer, S.C., spent the summer as an archaeological technician in Glendale, S.C. Bagwell has spent two Interims and two summers on this project.

Faculty collaborator and mentor: Dr. Terry Ferguson, associate professor and senior researcher for the Goodall Environmental Studies Center, and Dr. Anna Harkey, adjunct instructor of sociology and anthropology.



Blair Brawley '22, a biology major and a mathematics minor from Newport, Tenn., researched the glucose-6-phosphate dehydrogenase enzyme and associated diseases. During her research, she and her faculty advisor aimed to analyze the structure and function of the enzyme to understand how mutations in the gene affect G6PD deficiency. During this experience, she learned a variety of lab techniques. She plans to attend medical school. Brawley is a biology and chemistry tutor on campus and a teaching assistant in the biology department.

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



Savannah Bryant '22, a mathematics major with minors in computer science and philosophy from Clover, S.C., researched the methodology behind programming code used to determine outbreaks of diseases in certain spatial locations. She hopes this research will produce a statistical model that will allow more preparation for disease outbreaks. She plans to continue her research in the fall of 2020. Bryant is a Bonner Scholar, an iCAN mentor, a first-generation college student, a Wofford Ambassador, a Greek life participant and a member of the college's female a cappella group.

Faculty collaborator and mentor: Dr. Deidra A. Coleman, assistant professor of mathematics



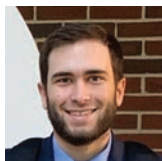
Conner Chestnut '21, a intercultural studies major and an Arabic minor from Aynor, S.C., used experience from his studies home and abroad to research and translate French military records to document the geographic progression of the Great Syrian Revolt in comparison to the ongoing conflict in Syria. The research was conducted with the goal of understanding why conflicts may originate from the same locations in two different periods in history and, potentially, how the understanding of this phenomenon may be used in the future.

Faculty collaborator and mentor: Dr. Victoria Gilbert, visiting assistant professor of government and international affairs



Paola Cruz '23, a sociology and anthropology and Spanish major, interned in the college's Spanish department and focused on advancing participatory inclusion of Latinx residents in Spartanburg, S.C., through data dissemination that is both culturally and linguistically inclusive. The project's goal is to open dialogue, equity and inclusion. Based off research done in 2018 to 2020, she was able to complete a series of projects highlighting information regarding health and education geared toward Latinx youth and adults.

Faculty collaborator and mentor: Dr. Laura Barbas Rhoden, professor of Spanish



Ethan DiBlasio '22, a chemistry major and computer science minor from Spartanburg, S.C., investigated the synthesis of new zinc aminotroponimate (ATI) ligands. These ligands are known to perform intramolecular hydroamination of alkenes but intermolecular hydroamination of alkenes with these ligands has not been documented. The overall goal of the project is to develop ATI ligands that will result in intermolecular hydroamination of alkenes when used as a catalyst. DiBlasio is president of the Fly Fishing Club, service vice president of Wofford's Alpha Phi Omega chapter and a member of the club tennis team.

Faculty collaborators and mentors: Dr. Robert. J. Harris, visiting assistant professor of chemistry, and Dr. Jameica Hill, professor and chemistry chair



Beth Diggle '21, a biology major and native of Charleston, S.C., researched the impact increased seawater temperature and microplastics have on the symbiotic relationship between *Aiptasia pallida* and dinoflagellate algae. She spent the summer running various experiments, analyzing data and brainstorming new approaches to experimentation. After graduation, she plans to take a gap year before attending medical school.

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



Breana Dogan '22, a biology major with a concentration in neuroscience from Spartanburg, S.C., participated in a project with a team of students and faculty to investigate the effectiveness of noninvasive sex hormone analysis in songbirds. She and her team spent the summer reading literature about many bird species, bird watching and collected samples for analysis. She hopes to continue research to understand how the concentration of circulating hormones can indicate the health of birds and their environment. Dogan is a first-generation college student, Bonner Scholar, Gateway Scholar, iCAN mentor, volunteer at St. Luke's Free Medical Clinic, member of Wofford Women of Color, co-president of Amnesty International and a member of Tri-Beta Honor Society.

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



Juan Garcia '23, a computer science major from Lyman, S.C., studied spatial scan statistics and determined the best variation of it for a project. The concept was also applied to data about birth defects in New York while looking for patterns. Garcia is a Bonner Scholar, Gateway Scholar, member of the Organization of Latin American Students and Wofford Men of Color.

Faculty collaborator and mentor: Dr. Deidra A. Coleman, assistant professor of mathematics



Mariana Gonzalez '21, a psychology major and a sociology and anthropology minor from Hickory, N.C., has spent each of her summers as a Wofford student participating in community-based research projects in Spartanburg, S.C. This summer, she conducted interviews to better understand how the Resilient Schools training at the Child Protection Training Center has aided teachers. The training's goal is to help teachers become aware of adverse childhood experiences and how to better help the children they work with and their needs. A second part of Gonzalez's summer research was the creation of a podcast. Her team initiated a podcast on the Latinx 29303 community that had been done the previous summer. The podcast's purpose is to disseminate the project's findings. The team plans to continue this podcast throughout the year. Gonzalez is also a Bonner Scholar.

Faculty collaborator and mentor: Dr. Christine Dinkins, Kenan Professor of Philosophy



Zifan (Ivan) Gu '21, a computer science major and a mathematics and physics minor from Shanghai, China, researched classification, a category of supervised machine learning. Classification takes a collection of data sets and makes a binomial prediction: whether the event is successful or not. A data set from an online multiplayer video game, "League of Legends," was used in his research. It was based on the gold income, experience and eliminations of other players. The goal was to predict the game outcome (whether the Blue team won or lost). He learned two main methods of supervised learning that will help build such a

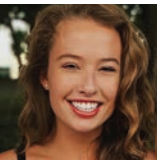
prediction model: logistic regression and classification trees. Both methods allowed him to predict binary events, with the difference that logistic regression uses fitting a curve to numeric data while classification trees build flowchart structures to make decisions.

Faculty collaborator and mentor: Dr. Beau Christ, assistant professor of computer science



Alea Harris '22, an English and sociology and anthropology double major from Cincinnati, Ohio, was part of the “Acknowledging our Past: Race, Landscape, and History” project. Harris used archival research to update the published history of the college. Her work considered what history had been preserved, minimized and left out. Harris studied the relationships Wofford’s first presidents and faculty members had with the institution of slavery and the Civil War. Her research led to history modules that can be used in Wofford’s First-Year Interaction (FYI) Seminar as well as new faculty presentations. There are plans to create a separate website for those interested in learning more about the college’s complex history. Harris is a member of the women’s basketball team, treasurer of Wofford Women of Color, Association of Multicultural Students, Black Student Alliance and Wofford’s Pre-Law Society.

Faculty collaborator and mentor: Dr. Rhiannon Leebrick, assistant professor of sociology



Rachael Karriker '21, a biology major and studio art minor from Gaffney, S.C., conducted research using non-invasive techniques to assess sex steroid hormone patterns in northern cardinals. Karriker hopes her research will establish a multi-year project to assess steroid hormone patterns of local resident species because birds are valuable indicators of habitat and ecosystem integrity. Karriker is a Wofford Scholar, president of the Pre-Dental Society and chairwoman of the Wofford College Honor Council. She plans to pursue a career in dentistry.

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



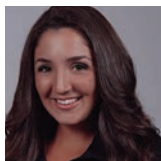
Russell Kibbe '21, a first-generation college student, chemistry major and religion minor, focused on organometallic chemistry and air-free chemistry to synthesize zinc and aminotroponimine ligand complexes to be used as catalysts for intermolecular hydroamination reactions on allenes and alkenes. This work is significant to the pharmaceutical, agrochemical and biological industries. It allows hydroamination to take place in a more atom economical way while producing less byproducts and chemical waste. Kibbe plans to attend graduate school for chemistry and earn a PhD.

Faculty collaborators and mentors: Dr. Robert. J. Harris, visiting assistant professor of chemistry and Dr. Jameica Hill, professor and chemistry chair



Zack Kirtz '21, an economics major and an Arabic minor, researched why non-state actors, particularly armed groups in the Middle East, use their limited resources on destroying cultural heritage sites. He conducted a literature review of relevant scholarly articles and collected data from over 900 incident reports from the American School of Oriental Research. During the data collection, he was able to locate instances of deliberate destruction by over 20 armed groups in Syria, Libya and Iraq between 2014 and 2018. Kirtz is continuing his personal research in the fall with an economics honor course and hopes to pursue a postgraduate degree in political science with a regional focus on the Middle East.

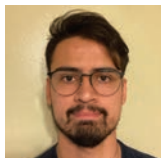
Faculty collaborator and mentor: Dr. Victoria Gilbert, visiting assistant professor of government and international affairs



Kay Kluska '21, an English major and film and digital media minor from Pittsburgh, Penn., composed a movie script focused on the emotional and psychological effects that domestic violence has on victims. The goal of her script was to shed light on both the pervasiveness of the issue and the frequency of how often the signs for such abuse is overlooked. Kluska plans to attend law school. She is a

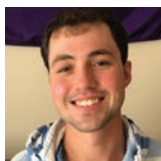
member of the Pre-Law Society, the women's tennis team, Zeta Tau Alpha and a contributing writer to the Old Gold and Black.

Faculty collaborator and mentor: Dr. Julie Sexeny, associate professor of English



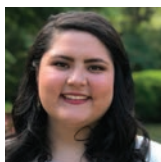
Baja Ksor '21, a chemistry and biology major from Spartanburg, S.C., looked into developing a Zn-based metal catalysis that is capable of facilitating intermolecular hydroamination of alkenes and allenes.

Faculty collaborators and mentors: Dr. Robert. J. Harris, visiting assistant professor of chemistry and Dr. Jameica Hill, professor and chemistry chair



Shelton Laney '21, a biology major from Spartanburg, S.C., spent the summer researching a project internally funded by the college about functional tradeoffs in two different species of crickets. Laney says the project allowed him to learn how to problem solve, be creative, persevere through difficult times, find scholarly articles, as well as organize and collect data from different sources. Laney participates in Greek life, intramural sports and the Wellness and Safety Committee.

Faculty collaborator and mentor: Dr. Jeremy Morris, assistant professor of biology



Grace Levitt '23, a chemistry and German major who is on the pre-med track, is from Spartanburg, S.C. She and a team of students and faculty researched the methodology behind a software program used to determine outbreaks of diseases in a community. They are still in the early stages of their research and hope to continue work during the fall of 2020. Levitt is a member of Wofford Women of Color, a peer tutor for German and is an officer for Wofford's chapter of Health Occupations Students of America. Levitt plans to continue research at Wofford and in medical school.

Faculty collaborator and mentor: Dr. Deidra A. Coleman, assistant professor of mathematics



Mayra Lomeli Garcia '21, a psychology and Spanish double major with a minor in business from Charleston, S.C., collaborated with a Spartanburg school district's administrators and worked with the Resilient Schools program created by the Child Protection Training Center. The group gathered qualitative data and quantitative survey data. They conducted interviews and surveys with administrators that took the Resilient Schools training on how to treat childhood trauma. The information collected led to a collaborative report that is being prepared for publication. Garcia has spent three summers as a student researcher. She's also been involved in three published articles on community-based research: "Inclusive Place-Making in Spartanburg, SC: Amplifying Latinx Voices through Community-Based Research," "Contextualizing Kindergarten Readiness Data: A Qualitative Research Study of Forest Park Neighborhood in Spartanburg, S.C." and "Out of School Time (OST) for Latinx Youth: A Qualitative Research Study in Spartanburg, S.C.," which can be found in the college's digital commons. She has worked as a fellow for the iCAN Spartanburg mentorship program.

Faculty collaborator and mentor: Dr. Christine Dinkins, Kenan Professor of Philosophy



Diego Losada Rubio '21, a physics and computer science major and a math and philosophy minor from Granada, Spain, researched the mathematical analysis of heart rhythm recordings from a population of healthy students. Losada joined on-going research that measured the complexity in brain and heart rhythm waves to find correlations between measurements and memory performance. He did heart rate variability analysis of the 24-hour heart rhythm measurements of different students. Losada participated in two previous summer research experiences and three semesters of research on campus.

Faculty collaborator and mentor: Dr. Carolyn Martsberger, assistant professor of physics



Erin Mancini '21, a history and art history major from Knoxville, Tenn., participated in two summer research projects. The first focused on the use of art to help children from the Boys & Girls Clubs of the Upstate to improve their ability to read and write. She developed nine adaptable education models that she will use for programming in the fall and spring. During the summer, some of those activities, crafts and art supplies provided learning opportunities for children. Mancini's second project involved preparation for an exhibition at the Rosalind Sallenger Richardson Center of the Arts in the spring of 2021. The exhibition uses prints from the Wofford College Fine Arts Collection, Bob Jones University and other sources to teach the public about diverse printmaking methodologies. She gained insight on arts career paths during both projects.

Faculty collaborators and mentors: Dr. Youmi Efurd, museum curator, and Dr. Karen Hope Goodchild, Chapman Professor of Humanities and art and art history chair



Dieran McGowan '22, an undeclared major from Greenville, S.C., conducted research to create a more inclusive history of the college. She accessed the Spartanburg County Public Libraries and the Sandor Teszler Library's archives to create history modules for Wofford's First-Year Interaction (FYI) Seminar and new faculty members. McGowan read notes from past Wofford presidents, scanned 19th century census records, transcribed interviews with the college's early African American alumni and worked with other study groups and faculty members to enhance how the history of Wofford is conveyed on campus.

Faculty collaborator and mentor: Dr. Rhiannon Leebrick, assistant professor of sociology



Zoe Mullins '22, a Spanish and government major from Rock Hill, S.C., focused on improving inclusion and participation of Latinx members in Spartanburg County. The project, “Advancing Participatory Inclusion of Latinx Residents in Spartanburg, SC: Culturally and Linguistically Inclusive Data Dissemination for Dialogue, Equity, and Inclusion,” had goals to further empower the Latinx culture in Spartanburg and widen Latinx access to important resources. The research’s focus was to connect with organizations such as the Mary Black Foundation, Partners for Active Living and Spartanburg Academic Movement to create bilingual informational products for the Latinx population. Over the 10-week period, Mullins produced different graphics to highlight the importance of healthy eating and active living (HEAL) to both adults and children. She also helped produce first-grade level activity units focused on healthy eating and embracing cultural diversity in food choice. In addition to her research, Mullins interned at a criminal defense law firm.

Faculty collaborator and mentor: Dr. Laura Barbas Rhoden, professor of Spanish



Price Nimmich '21, a finance and math double major and native of Charleston, S.C., conducted research to develop a self-funded hedging strategy that focuses on risk-averse investing via options trading. The project focused on the role that statistical significance plays when analyzing financial data; two areas that he would like to experience more in his future career.

Faculty collaborator and mentor: Dr. Philip Swicegood, R. Michael James Professor of Finance and accounting, business and finance chair



Hector Ortiz '22, a biology, philosophy and Spanish major with a concentration in medicine and liberal arts, collaborated with faculty members to study Latinx communities across South Carolina, including Spartanburg, to research reproductive and mental health. Ortiz assessed the impact of Adverse Childhood Experience training on educators in Spartanburg in a second project and analyzed sex hormones in local cardinals for a third research project.

Faculty collaborators and mentors: Dr. Lori Cruze, assistant professor of biology, and Dr. Christine Dinkins, Kenan Professor of Philosophy



Caroline Payne '23, a biology major from Lexington, S.C., was a member of the student research group focused on the Back of the College project. Back of the College was an African American neighborhood located behind Wofford. Payne transcribed and indexed interviews that were conducted by previous student researchers, organized housing records collected in city directories and collaborated virtually with Spartanburg County Public Libraries to learn more about organizations that were associated with Back of the College. Payne hopes the project will properly memorialize the residents of Back of the College.

Faculty collaborators and mentors: Dr. Jim Neighbors, professor of English, and Dr. Kimberly Hall, assistant professor of English



Lucy Person '23, a psychology major from Charlotte, N.C., created a tour of Back of the College, an African American neighborhood that was located behind the Wofford campus. She drafted a script for future tours. Person is a member of Kappa Delta sorority, Orientation staff, the Wellness and Safety committee and the Wofford Live committee.

Faculty collaborators and mentors: Dr. Jim Neighbors, professor of English, and Dr. Kimberly Hall, assistant professor of English



Emily Rea '21, a biology and Spanish major from Charleston, S.C., continued a project that began the fall of 2019 focused on the causes and physiological mechanisms of coral bleaching. This was done with sea anemone *Aiptasia pallida* as a model organism. The project's experiments were intended to show coral bleaching with increased environmental temperatures, as well as bleaching in correlation with microplastic ingestion as a result of ocean pollution. Summer 2020 research hoped to find cell size discrepancies between phosphate replete and deplete cultures of the symbiotic algae *Symbiodinium minutum* and the use of silent interfering RNA to try and locate a gene for the algae's ATPase protein. The team's findings were slightly underwhelming, with little data to support its claims from last fall. However, Rea appreciated problem solving as a team.

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



Matilda Redfern '23, a sociology and anthropology major with a minor in business and philosophy from Atlanta, Ga., designed a tour of the Back of the College neighborhood, which was located where a large portion of Wofford's campus is today. The tour can be incorporated into the college's existing campus tour. Redfern also helped create a visual to accompany the tour with pictures from the neighborhood's residents. She is a first-generation college student, a member of Orientation staff, Delta Delta Delta sorority, Wofford Sports Marketing and the Student Marketing Committee.

Faculty collaborators and mentors: Dr. Jim Neighbors, professor of English, and Dr. Kimberly Hall, assistant professor of English



Madeline Samson '21, a Spanish and government major from Pass Christian, Miss., worked on the multi-modal dissemination of data regarding inclusive placemaking, out-of-school time and healthy eating and active living within Spartanburg's Latinx community. She collaborated with a team of two other students to create visuals, podcasts and interactive formats for children, youth, and adults that focused on accessibility to higher education and health

attainment. Samson is passionate about educational equity and believes that all children deserve the chance to reach their full academic potential.

Faculty collaborator and mentor: Dr. Laura Barbas Rhoden, professor of Spanish



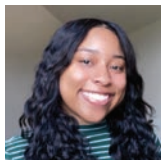
Hannah Scott '23, a biology major with a concentration in neuroscience in the pre-med program, is from Modesto, Calif. Scott spent the summer researching a project funded by South Carolina Independent Colleges and Universities learning about crickets' jump performance in relation to their anatomical traits, competing genders and species. Scott says the project allowed her to not only learn about data collection and organization but about resilience and the feats that come with doing collaborative research. She plays club volleyball, is a student media relations worker and resident assistant.

Faculty collaborator and mentor: Dr. Jeremy Morris, assistant professor of biology



Destiny Shippy '22, a sociology and anthropology major from Spartanburg, S.C., assisted in studying the untold history of Wofford College and created teaching modules for the First-Year Inquiry (FYI) Seminar for instructors to present. She developed archival research skills remotely. Shippy also assisted in designing teaching modules by helping with layouts, templates and photo additions focused on the college's history from 1980 until the present. She plans to become a civil rights attorney. Shippy is president of Wofford Women of Color, secretary of the Association of Multicultural Students, co-chair of the Wofford Anti-Racism Coalition and a student-athlete.

Faculty collaborator and mentor: Dr. Rhiannon Leebrick, assistant professor of sociology



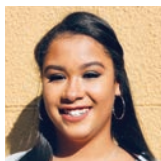
Anye Stewart '23, a psychology major and an Arabic minor from Columbia, S.C., worked on a team that focused on retelling the story of Omar ibn Said, an enslaved Muslim man brought to the Carolinas in the 19th century. Stewart has a strong interest in the people, culture and history of the Middle East North Africa region. In her research, she linked the story of Said to current prejudices and injustices towards minority groups.

Faculty collaborators and mentors: Dr. Philip Dorroll, associate professor religion; Dr. Courtney Dorroll, assistant of professor religion; and Professor Colleen Ballance, professor and theatre chair



Savannah Talledo '21, a chemistry and theatre major from Spartanburg, S.C., aimed to synthesize zinc catalysts that could perform intermolecular hydroamination reactions on both alkenes and allenes. Her specific project focused on synthesizing a mixed ligand derived from acetylacetonone that when bound to zinc will form a catalyst whose effectiveness will be studied through intermolecular hydroamination reactions of alkenes.

Faculty collaborators and mentors: Dr. Robert. J. Harris, visiting assistant professor of chemistry, and Dr. Jameica Hill, professor and chemistry chair



Eliza Williams '23, a math and French double major from Augusta, Ga., researched the spatial scan statistic used to determine the location of an outbreak. Her group analyzed the code and software behind this methodology. The group hopes to continue research in the fall. Williams is involved with Wofford Ambassadors, Wofford Theatre, Greek life and she's a French peer tutor. Williams hopes to attend medical school.

Faculty collaborator and mentor: Dr. Deidra A. Coleman, assistant professor of mathematics



FACULTY BIOGRAPHIES



Colleen Megarity Balance, a professor of design at Wofford College since 2007, has worked in professional theatre for 30 years, most notably at the Guthrie Theater in Minneapolis, Minn., and Spoleto Festival USA in Charleston, S.C. She has worked on several feature films and continues to work as a freelance set designer.



Dr. Laura Barbas Rhoden, a professor of Spanish at Wofford College, is the author of two books, "Writing Women in Central America" and "Ecological Imaginations in Latin American Fiction," and numerous articles on Latin American environmental humanities, as well as civic partnerships and global learning in higher education. She is co-president of the Association for the Study of Literature and the Environment, an international professional organization, and founder of Alianza Spartanburg, a social impact network dedicated to fostering the inclusion of Latinx residents in improving quality of life in Spartanburg. She currently serves as a non-trustee program committee member for the Mary Black Foundation; a member of the EMERGE Family Therapy & Teaching Clinic Board; the Behavioral Health Task Force; the Spartanburg Food System Coalition, and the Community Advisory Board for CONNECT. She has collaborated with Dr. Christine Dinkins, Wofford's Kenan Professor of Philosophy, community members and students to conduct several public research projects in the Spartanburg community. Students have presented these projects at national and international conferences, and the project reports are available open access in the Wofford Digital Commons.



Dr. Courtney Dorroll, an assistant professor of religion, is a co-coordinator for Wofford College's Middle East and North African Studies program. She edited the book "Teaching Islamic Studies in the Age of ISIS, Islamophobia, and the Internet," which has several chapters that offer teaching strategies and concrete examples of classroom assignments. The book was published by Indiana University Press. Her work focuses on the scholarship of teaching and learning Islam, area studies and self-care pedagogy.



Dr. Phil Dorroll, associate professor of religion at Wofford, holds a PhD 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 is also currently researching the earliest Arabic manuscripts produced by enslaved Muslims in the Carolinas.



Dr. Beau Christ, an assistant professor of computer science at Wofford College, is the coordinator of both the emphasis in computational science and the program in data science at Wofford. He also leads the Wofford Computational and Data Science (CADS) Research Group.



Dr. Deidra A. Coleman, an assistant professor of mathematics and a native of Savannah, Ga., earned her PhD in statistics at North Carolina State University. She is beginning her fourth year as a member of the faculty at Wofford College. She has mentored students engaged in undergraduate research since 2015. Her research interests are in improving the methods for early outbreak detection, adding to the approaches for encouraging statistical literacy and studying the mathematical beauty associated with subtraction games. She loves introducing students to the potential of that type of exploration.

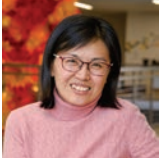


Dr. Lori Cruze, an associate professor of biology, earned a bachelor of science degree from the University of Tennessee and a PhD from the University of Florida. Prior to joining the faculty at Wofford College in 2015, she was a research professor in the department of obstetrics and gynecology at the 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. Christine Dinkins, Kenan Professor of Philosophy and recipient of Wofford's Covington Award for Excellence in the Teaching of the Humanities and Social Sciences, is co-author of two books, "Listening to the Whispers: Re-thinking Ethics in Healthcare" and "Our Dissertations, Ourselves: Shared Stories of Women's Dissertation Journeys." Dinkins has also

published widely on the use of Socratic method in teaching and qualitative research. She has collaborated with Dr. Laura Barbas Rhoden, professor of Spanish, community members and Wofford students with support from the undergraduate research program to conduct several public research projects in the Spartanburg community. Students have presented these projects at national and international conferences, and the project reports are available open access in the Wofford Digital Commons.



Dr. Youmi Efur, curator of the Richardson Family Art Museum, organizes and maintains Wofford College's Fine Arts Collection and exhibitions. Originally from South Korea, she holds a bachelor of fine arts in art education from Korea University, a master of arts in art history from the University of Georgia and a PhD in history of art from the University of Kansas. Efur's specialty is in Chinese art, and she uncovers the living nature of religious art as it responds to changing political, religious and social circumstances in Chinese history. Her training in Asian languages and societies aids her research and broadens her perspective of viewing and understanding culturally significant objects. In addition to curatorial duties, she teaches museum studies at Wofford. Previously, she taught classes at the University of Kansas, Furman University, USC Upstate and Limestone College. Her recent administrative duties focus on the development of educational programs for visitors to enrich their museum experiences, as well as conservation and preservation of the college's art collection.



Dr. Terry A. Ferguson, Professor Emeritus, was a member off the Wofford College faculty from 1984 to 2020. He was program coordinator for geology from 1984 to 2008, after which he was a faculty member in environmental studies. He also taught courses in archaeology and sociology and anthropology. Ferguson had his first archaeological field experience in 1972 while a student at Wofford. He graduated from the college in 1975. In the late 1970s, Ferguson taught two archaeological fieldwork Interims while in graduate school. Over the past four decades, he has offered numerous fieldwork Interims and summer research experiences for Wofford students. In recent years, he's collaborated with Dr. Anna Harkey, adjunct instructor of sociology and anthropology, to investigate the prehistoric and historic

archaeology of 200 acres surrounding the upper shoals of Lawson's Fork Creek above Glendale, S.C. Wofford students have worked hard and played a major role in this research, conducted during Interims and summers. This has been a great "hands-on" learning experience and a great deal has been learned about the past cultural and natural landscape of the area around the Wofford Goodall Environmental Studies Center and this part of the Piedmont.



Dr. Victoria Gilbert, visiting assistant professor of government and international affairs, teaches courses on international affairs, conflict and Middle Eastern politics. Her research focuses on institutions and identities in the context of civil wars as well as the behavior of non-state actors. She received a PhD from the University of Pennsylvania in 2019.



Dr. Karen Goodchild, Wofford College's Chapman Family Professor of Humanities and chair of art and art history, 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. She encourages students to find links between theory and practice, as evidenced in SCICU fellow Erin Mancini's research into the global history of printmaking. That project received support from Dr. Youmi Efurud, the college's curator. It will culminate in a public art exhibition for the Upstate community.



Dr. Kimberly Hall, an assistant professor of English, teaches courses in digital media studies and 19th century British literature. Her research focuses on social media discourse and culture. Her work has appeared in "Television and New Media, Women & Performance, Amodern, and Social Media + Society."



Dr. Robert Harris, a Wofford College graduate with degrees in chemistry and mathematics, completed his PhD in organometallic chemistry at Duke University and a Howard Hughes Medical Institute funded postdoctoral fellowship at Emory University. Harris returned to Wofford in the fall of 2019 as a visiting assistant professor in chemistry. His research interests include both curriculum reform in undergraduate chemical education and the development of transition metal complexes to catalyze new reactions in organic chemistry.



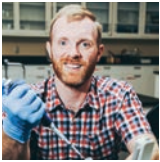
Dr. Jameica B. Hill, professor and chemistry chair, had doctoral research interests concerning main group organometallic chemistry in general with a emphasis on organoaluminum chemistry. Efforts were directed towards three main areas: (1) The synthesis, utility, and applications of organoaluminum III-V compounds as possible single-source precursors to ceramic materials; (2) The synthesis of organoaluminum starting materials and their interactions with nitrogen- and oxygen-based reagents; (3) The MOCVD potential of Group III compounds containing M-M bonds. Currently, her research interests also include promoting the interest of women and minorities, as well as all students, in the area of science as possible career choices by targeting middle and high school students, as well as Wofford undergraduates, and offering opportunities to them in research and/or attending residential science programs.



Dr. Rhiannon Leebrick, an assistant professor in the department of sociology and anthropology, has teaching and research interests focused on social inequalities and stratification, with a concentration on environmental gentrification and privilege. A secondary interest is public memory and place making. She has a PhD in sociology from the University of Tennessee, a master of arts in public and international affairs from Virginia Tech, and a bachelor of arts in international studies from Hollins University.



Dr. Carolyn Martsberger, an assistant professor of physics, earned a bachelor's degree from the College of the Holy Cross and then a master's and PhD in physics from Duke University. While at Duke, she completed a certificate in translational medicine from the University of North Carolina at Chapel Hill. Prior to joining Wofford, she was a postdoctoral fellow in clinical neuropsychocardiology at Duke University Medical Center and taught physics at the undergraduate level. She is excited about her many opportunities to explore her passion for the intersection of cardiology, medicine and physics in a variety of settings. Her research focuses on understanding the nonlinear phenomena that promote irregular rhythms in cardiac tissue. She is also interested in how nonlinear, physiological systems such as the brain and heart collaborate and interact.



Dr. Geoff Mitchell, assistant professor of biology, earned a bachelor of science from Furman University and a PhD in cancer biology at the University of Arizona, where he studied mechanisms for protecting normal tissues during radiation therapy for head and neck cancers. He also worked as a postdoctoral researcher at the University of Arizona and studied cellular decision making. At the end of his postdoctoral appointment, Mitchell joined the faculty of Colby College as a visiting assistant professor of biology before coming to 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 and international conferences.



Dr. Jeremy Morris, an assistant professor of biology at Wofford College, conducts research focused on animal performance, the role of aggressive behaviors on the evolution of animal anatomy, and the evolution of differences in anatomy and physiology between males and females. He has published research on the evolution of aggression in humans, male-female differences in the anatomy of carnivores, primates, humans and rodents. Other research topics that he has published on include deep sea ecology and fossil pangolins. Prior to becoming a professor, Morris carried out research on endangered Hawaiian forest birds and on the effects of the Deepwater Horizon oil spill on bird

life in the Mississippi River Delta. He also taught English to K-12 students in China, managed a zipline course in coastal Alaska and led a National Geographic Student Expedition to Indonesia that focused on ecotourism and marine conservation. He previously managed a project that brought conservation science and scientists to inmates in jails and prisons in Utah. Morris is an avid traveler and has spent several years traveling throughout southeast Asia, India, China, the Himalaya, Central America and Europe. He has scuba dived and surfed all over the world and has completed several overnight rock climbing ascents of big walls in Yosemite and Zion National Park.



Dr. Jim Neighbors, an English professor and one of the co-coordinators of the African / African American Studies Program at Wofford College, is a partner in the collaborative project to tell the history of the primarily Black neighborhood that existed behind Wofford, called Back of the College by its residents. Back of the College began in 1869 with the foundation of Silver Hill United Methodist Church and developed into one of the most prominent Black neighborhoods in Spartanburg. One of the two Black high schools during segregation, Cumming Street School, was built in the neighborhood in 1926 and served students until desegregation took hold in Spartanburg in 1969.



Dr. Ramin Radfar, chemistry professor at Wofford College, obtained his PhD from the University of South Carolina and subsequently worked for a year in the crystallography laboratory at Schering-Plough Research Institute. In August 2001, he joined faculty at Wofford College and since then he has supervised research projects of more than 40 students. Radfar has excellent experience with expression, purification, crystallization and structural studies of large proteins. He has solved crystal structure of several proteins including 4-diphosphocytidyl-2-C-methyl-D-erythritol (CDP-ME) synthetase from *Staph aureus* and RNA-dependent RNA polymerase of hepatitis C virus in complex with divalent cation.



Dr. Julie Sexeny, associate professor of English at Wofford College, serves as director of Wofford's Writing Center, and coordinator of the college's film and digital media program, which she established in 2016. She teaches courses in filmmaking, film studies, surveillance and sexuality. Her essay

"Identification and Mutual Recognition in Darren Aronofsky's Black Swan" was published in "Embodied Encounters: New Approaches to Film and Psychoanalysis." Her feature-length script, "20 minutes of action," a look at the impact of campus assault on a young woman and her family, was a finalist in the 2019 Creative World Awards Screenplay Competition, and she's currently adapting a memoir by the renowned New York author and National Book Award finalist Vivian Gornick. She received an interdisciplinary PhD in film, psychoanalytic studies and cultural history from Emory University and a master of fine arts in screenwriting from Columbia University.



Dr. Philip Swicegood, R. Michael James Family Professor of Finance at Wofford College, chairs the Department of Accounting, Business and Finance, and has served as a Fulbright Scholar for the U.S. State Department in Croatia. He holds a PhD in finance from Florida State University, a master of business administration in finance from the University of Texas-Austin, and a bachelor of science degree in finance and philosophy from Liberty University. He has worked in the banking industry as an analyst for the U.S. Treasury Department and has served as a business consultant and expert witness for companies all over the world. In addition to teaching, Swicegood has published in multiple finance journals, and he conducts finance seminars for HighMark Inc., a non-profit consulting firm that provides business training in developing countries. Swicegood and his wife Cindy have two children, Stephanie and Susanna. Their family is active in service and community life at Grace Presbyterian Church. When not engaged with the three ladies of his life, Philip enjoys fly fishing, reading, ultimate frisbee and making ridiculously hard tests for his students.

Disclaimer: The views and research shared in this booklet belong to the collaborative teams and do not necessarily represent the views and endorsement of Wofford College.

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**Interested in learning more about summer collaborative research
opportunities at Wofford College?**

**Please contact Dr. Ramón Galiñanes Jr.,
director of Undergraduate Research and Post-Graduate Fellowships,
at galinanesr@wofford.edu or Rebecca Parrish, grant specialist,
at parrishrr@wofford.edu.**

