

## **Presidential Semester Incentive Awards**

*Each of these awards represent grants of up to \$12,000 each and a full semester course release to support faculty in a focused and meaningful scholarly and significant product upon completion (i.e.: external grant application, research protocol, authored book, intellectual property development, etc.).*

**Dr. Brian Corrigan, professor, Department of English**

### ***The compendium of Renaissance drama & James biography project***

Abstract: The Compendium of Renaissance Drama (CORD) is a 5+-million-word database of the English Renaissance drama that I began developing in 1989 and have steadily worked upon to the present day. The CORD was launched as part of UNG's digital presence in April 2016 in connection with the 400th anniversary observation of Shakespeare's death. The CORD is 98% complete and the current award will see the final six, very rare, plays introduced into the database as well as adding significant information regarding a newly uncovered Renaissance London playhouse.

**Dr. Kristin Kelly, associate professor, Department of English**

### ***Whatever gets you through the night: Literature and combat trauma***

Abstract: Consistent with the work of Jonathan Shay, M.D. and Ph.D., my objective in writing the 8,000-word article "Whatever Gets You Through the Night: Literature and Combat Trauma" for Poetry and Pedagogy: an Interdisciplinary Approach (2 Volumes) with editors Sandra Kleppe (Professor, Hedmark University College, Norway) and Angela Sorby (Professor, Marquette University) is to communalize the trauma of the wars in Iraq and Afghanistan. My work in bibliotherapy seeks ultimately to enhance the treatment plans of tens of thousands of veterans served by the Veterans Administration and private providers alike. The human comfort of witnessing war through literature can keep warriors alive and dreaming in a way that pharmaceuticals alone often cannot.

**Dr. Katayoun Mobasher, associate professor, Institute for Environmental and Spatial Analysis**

### ***Innovative geoscience laboratory activities and field-based learning environments for students with orthopedic and sensory disabilities***

Abstract: There are about 770,000 students with disabilities (SWD) enrolled in 2- and 4-year institutions (Raue and Lewis, 2011). At American universities today, more students with disabilities are taking more challenging courses (Howe, 2004) and many of these students may be enrolled in introductory geoscience classes. Geology is a branch of science that requires field-based learning techniques and laboratory engagement in order to provide students with practical knowledge and skills. Currently, labs at the University of North Georgia are not fully accessible for students who have disabilities. Providing innovative and accessible field-based activities and laboratory materials to our students with disabilities will allow them to enjoy and understand the subject and increase their interest in the discipline which could lead them into other geoscience courses offered. This project has the potential for improved recruitment and retention of SWD in these fields. In order to make our geoscience courses more accessible to these students, I propose two different approaches. One involves students with orthopedic disabilities and other involving students with visual disabilities. The Presidential Semester Scholar Award would assist me in providing funding for course release during the fall 2017 semester. I will use this time to produce accessible learning materials for both of these two group of students. The finished project will be disseminated among my UNG colleagues as well as other institutions with interests in improving learning environment for both orthopedic and visually impaired students in the geosciences.

**Dr. Yong Wei, professor, Department of Computer Science and Information Systems**  
**Paraspinal muscle segmentation and volumetric estimation in CT and MR images**

Abstract: Paraspinal muscles support the spine and are the source of movement force. Their cross section area (CSA) size, shape, density and volume are affected by many factors, such as surgery, age, health condition, exercise, and low back pain. Manual measurements of paraspinal muscle CSA and volume in CT and MR images is inaccurate and time consuming. In this proposed project, a mutual information-driven atlas-based image registration algorithm will be developed to segment the muscle regions in CT and MR images automatically. The results can be used to evaluate tissue injury and postoperative back muscle atrophy of Minimally Invasive Spine Surgery (MISS) patients. They can also help to optimize patient rehabilitation management and monitor its effectiveness. Further applications of the algorithm obtained in the study can facilitate diagnosis of spine-related problems of patients of advanced age and/or with low back pain.

**Presidential Summer Incentive Awards**

*Each of these awards represent grants of up to \$10,000 to support faculty in focused and meaningful research, scholarly and creative activities.*

**Dr. Gina Childers, assistant professor, Department of Teacher Education**  
***Building STEM knowledge and skills through the computer electronic engineering (ce2) project and multidisciplinary collaborative efforts***

Abstract: Computer Science is recognized as a “new basic” skill that all students will need to enhance their economic opportunity and social mobility. This comes on the heels of the Every Student Succeeds Act (ESSA) of 2015 that requires all students in America to receive an education preparing them for success in college and their careers. Computer science (CS) offers our students the opportunity to become producers and creators of technology instead of consumers of technology. The proposed project will involve a multidisciplinary team of six-university faculty with expertise in science, computer science, and education. This team will partner with middle school teachers in Forsyth County to examine the impact of the development and implementation of CS lessons supported by professional development on students’ and teachers’ perceptions and interest of CS, STEM and related-careers.

**Dr. Ahmad Ghafarian, professor, Department of Computer Science & Information Systems**  
***Forensics analysis of Skype communication***

Abstract: Skype offers a range of features for paid and unpaid users including voice, video calling, instant messaging, and file transfers. From the computer forensics investigative standpoint, Skype can be used to commit a crime, or for other nefarious purposes. Skype may also be used as a platform for harassment or bullying incidents. Forensics analysis of Skype data can yield valuable digital evidence for computer forensics investigators. Skype can be launched from both a client machine and from a web browser. Client-based Skype forensics has been well studied by various researchers. However, to the best of our knowledge, there are not any published results about web-based Skype forensics. The goal of this research is to use various tools and technologies to experimentally evaluate forensic artifacts retrieved due to the use of web-based Skype. For comparison purposes, we also experiment with client-based Skype forensics.

**Dr. Michael Gove, assistant professor, Department of Economics & Finance**

***Perceptions of immigration: How far from the truth?***

Abstract: The proposed project involves the design and implementation of a survey questionnaire regarding perceptions of immigration in the United States, specifically focusing on understanding of basic immigration statistics, immigration law, and the economic and social effects of immigration. After gaining Institutional Review Board approval, this survey will be implemented in Principles of Economics classrooms at the University of North Georgia, measuring students' perceptions about the given issues. In turn, I will use a comparison of the results with the reality of immigration in the U.S. not only as the basis for development of a full-fledged research paper, but also as a powerful teaching tool in encouraging the surveyed students to undertake an examination of immigration and economics in the U.S.

**Alexandra Kraft, assistant professor, Department of Visual Arts**

***Jingdezhen, China: Creative research in ceramic art, craft, and design***

Abstract: I will conduct creative research in ceramic art, craft, and design in relation to current trends and historical perspectives in China. I have been chosen as an artist in residence at the Jingdezhen International Studio for a two-month period. This is a prestigious institution, in the porcelain capitol of the world. I am one of only three to five artists to be awarded this honor for the period. A portion of my work will stay in the collection of their international museum and part will be exhibited at the Yingge Ceramic Museum in Taipei. I will share a lecture and exhibit works shipped home, at the University of North Georgia. Works made in China will be displayed nationally in future exhibitions. I will take short trips to nearby cultural and historic sites. I will meet a colleague at Jiangxi University of Finance and Economics to continue planning a study abroad program between our institutions. I will cultivate and share the research gleaned during the trip upon return.

**Dr. Peijie Mao, assistant professor, Department of Modern & Classical Languages**

***Modernity, identity, and cultural imaginary: Popular fiction magazines in Shanghai***

Abstract: "Modernity, Identity, and Cultural Imaginary: Popular Fiction Magazines in Shanghai (1914-1925)" is the working title of my book project. Focusing on the literary practice and cultural production of less-studied popular writers, the book explores the ways by which popular values, imagination of modernity, and cultural identity were constructed and negotiated through popular fiction magazines in early Republican Shanghai. The book proposal has been accepted for publication by Lexington Books, and the book contract has been signed by both parties and executed. I am currently writing the manuscript, which is expected to be completed and send out for peer blind review no later than January 15, 2018. The outcome of the project is to complete portions of the manuscript. Because the book project involves extensive archival research in Shanghai Library, in summer 2017, I am planning to spend at least two months in Shanghai to continue collecting research materials for my book project.

**Dr. Esther Morgan-Ellis, assistant professor, Department of Music**

***Tune transmission in old-time music communities of the Southeast***

Abstract: I am requesting support to complete fieldwork at three different old-time music festivals/workshops in North Carolina during the summer of 2017. The purpose of these trips is to study the transmission of old-time music in the present age, when a variety of technological aids make it possible for any musician to access, create, and manipulate video and audio recordings to an unprecedented extent. This study seeks to document the modes of transmission by which old-time tunes circulate through the community today; to assess the impact of technology on repertoire dissemination and tune "authenticity"; and to take the temperature of contemporary opinion on the value and validity of various transmission methods. At the same time, I will be using my visits to gather

information that will aid me in establishing a summer “old-time music week” on UNG's Dahlonega Campus. There is significant community demand for such a program, and I plan to develop an inaugural offering for summer 2018.

**Dr. Sudhanshu Panda, professor, and Dr. Jeff Turk, director, Institute of Environmental Spatial Analysis  
*Lake Lanier watershed management decision support system development with geospatial technology***

Abstract: The Lake Sidney Lanier watershed area to the lake's impounding area ratio is at a precariously low of 14:1. Due to the expansion of Metro Atlanta to its suburban areas, the human and animal population in the Lake Lanier watershed has been increasing with passing years and the land management activities have gone through a big change affecting water quality of the stream in the watershed and subsequently of the lake. Its protection is a big concern for Georgians especially northeast Georgians, including researchers at University of North Georgia. Therefore, we propose to develop a geospatial technology supported watershed management decision support system (DSS) to enhance the awareness of the watershed stakeholders regarding the environmental mismanagement in the watershed and subsequent water quality deterioration scenario. They will be able to obtain past, present, and future water quality and quantity (WQ&Q) information from the DSS website which would include WebGIS site to provide GIS based WQ&Q data access and analyses, online software to obtain scenario analyses results with changed landuse, project maps, point and click access of watershed data, and strategic plans for evaluate and develop watershed management strategy. This project will be a one-stop location for Lake Lanier watershed management decision support. The project has excellent dissemination plan through teaching and workshop practicum development along with feedback seeking online to improve the DSS.

**Dr. Clay Rowell, associate professor, Department of Clinical Mental Health Counseling  
*The Center for Counselor Clinical Training Research***

Abstract: The creation of the Center for Counselor Training Research will help bridge a gap between research, training, and practice. In today's period of accountability, evidence-based practices are the decision-making drivers. This center will expose students to the complex procedures of counseling research during their programs of study. Students will have the opportunity to conduct experiments of their own clinical work, so they will be more equipped to thrive in today mental health system than most Master's-level counselors in the field.

From a faculty standpoint, the ability to analyze how our pedagogy translates into our students' work is immeasurable. Faculty will be able to critically evaluate the counseling skills of students and the processes and outcomes of their work with the clinic clients.

Finally, the creation of the Center will meet three of the goals outlined in the UNG Strategic Plan.

**Dr. Robert H. Scott, assistant professor, Department of History, Anthropology and Psychology  
*The significance of indeterminacy for intellectual inquiry: An inter-disciplinary, collaborative book project***

Abstract: My proposal consists of using the Summer 2017 award to complete a book project in which I am working as an editor and chapter contributor for a collection of essays on the theme of "The Significance of Indeterminacy for Philosophical Inquiry." My co-editor (from the Chinese University of Hong Kong) and I have brought together an excellent group of scholars who have already submitted abstracts for their chapters on the theme, and by devoting the summer to this project we will be able to complete it in a timely manner. Upon completion and publication of the book, I further propose, as part of the project, to invite one of the distinguished contributors to give a lecture on the theme at a book presentation event on campus in Gainesville or Dahlonega.

**Dr. Redahegn Sileshi, assistant professor, Department of Physics**

***Predicting changes in flow with changes in various stormwater biofilter media mixture: lab and field studies***

Abstract: The effects of an undergraduate research experience on student achievement and motivation in science and engineering education are vital to student success. Undergraduate research experience is extremely valuable for students and is an important part of a UNG education. The proposed research is a continuation of the author's dissertation work. The most important cause of runoff increases in urban areas is the increased amount of the impervious areas of pavement and roof areas. Stormwater biofiltration systems are widely used in urban areas to reduce runoff volume, peak flows and stormwater pollutant loads reaching receiving waters. In this project, the author would like to conduct field and laboratory column studies to determine flow rates in sand-peat columns as a function of compaction, texture, and uniformity, plus their sediment trapping capabilities. Mixtures of local sands from the State of Georgia representing a wide range of compaction, median size, uniformity, and organic content will also be examined using a complete factorial experimental design. The proposed project will give students a taste of what a research in science and engineering would be like and jump start their careers as researchers.

**Dr. Stanislaw Solnik, assistant professor, Department of Physical Therapy**

***Performance stability in tasks performed by two persons***

Abstract: The proposed project aims to investigate motor redundancy in tasks shared by two persons. People frequently coordinate their motor behavior in daily life, and stability of this joint motor performance is crucial for successful implementation of many tasks (e.g., passing a glass of water, caregiver interactions with patients, etc.). When a person executes a task alone, the central nervous system (CNS) coordinates redundant sets of elements to stabilize task performance. However, when two persons share a task, their nervous systems can only interact via sensory feedback. Thus, it is unclear whether similar coordination strategy may be facilitated in these situations. In the proposed research, I will focus on understanding the strategies people use to maintain the stability of shared motor task using an interdisciplinary approach. This project will involve neurophysiological, biomechanical, and cognitive aspects of movement neuroscience.

**Dr. Yanfei Zhu, assistant professor, Department of Visual Arts**

***Cultural Politics of the Rhythmic Brushstroke: The Afterlife of a Chinese Painting Canon in the United States***

Abstract: I will use the Presidential Summer Incentive Award to complete the last chapter of my book manuscript and prepare for its publication. The project focuses on the American understanding of the tradition of Chinese ink painting as the rhythmic essence of "Eastern" art and particularly the canon of seventeenth century individualism. Analyzing its impact on academic and curatorial approaches to Chinese painting as well as its connection to the emphasis of Abstract Expressionism on brushwork in the United States after WWII, I will employ cross-disciplinary methodologies from art history, history, literature, and statistics to analyze textual and visual materials. The study will be published and presented widely and will facilitate my pursuit of pedagogical and scholarly advancement.

## **Presidential Innovation Awards**

*Each of these awards represent grants of up to \$5,000 to support faculty and staff development and provide opportunities for interdisciplinary and/or cross-functional collaborations among colleagues or individual pursuits focused on innovations and partnerships that promote implementation of best practice models. The proposals may include requests for student assistants, operating supplies, equipment, and/or travel.*

**Dr. Tamirat Abegaz, assistant professor, Department of Computer Science and Information Systems**  
***3D colors & shapes as emotional design elements to improve information search experience among older adults***

Abstract: In this proposed research project, I will conduct a human-computer interaction (HCI) usability study that explores the 3D shape, color, and shape/color emotional design elements into currently existing search engine interfaces. For this study, I am planning to recruit fifty older adults (age 65 and over) from the North Georgia area. The experimental data will be collected using the EyeTribe eye tracker and 3D shapes and colors will be used to induce specific emotional behavior on the subjects. This is a continuation of my dissertation research. In my prior study, I explored 2D shapes, colors, and color/shape combinations as a mechanism to manipulate users' affective states by incorporating primitive emotional design elements into search engine interfaces. The result from my prior study indicated that rounder shapes generally led to superficial search behavior. However, color and color/shape combination didn't significantly affect search performance. In this research project, I would like to further explore the integration of 3D colors and shapes into search engine interface to potentially improve search experience for older adults.

**Dr. Brent Allison, associate professor, Department of Teacher Education**  
***UNG workshop on education, culture, and institutions***

Abstract: The UNG Workshop on Education, Culture, and Institutions is a proposed platform for scholars from a variety of disciplines connected to the educational and social research traditions to engage with other scholars about their essays in progress. The workshop would welcome authors from diverse fields in education and the social sciences.

Instead of a traditional presentation format that involves the prearranged exhibition of a finished work, the workshop would emphasize discussion of an author's working paper distributed on the workshop website in advance. Workshop members would provide "feedforward" – commentary designed to help the author improve their paper rather than to simply point out deficiencies and mistakes.

In addition to UNG-based participant authors, this proposal requests funding for travel-related expenses to bring international-caliber scholars to UNG to also participate as authors. Funding would also cover workshop advertising expenses.

**Dr. Lindsay Bailey, director of student involvement, and Mallory Rodriguez, director of student life and leadership programs, Office of Student Involvement**  
***Student Affairs alternative spring break***

Abstract: An alternative spring break program is proposed in order to provide a dynamic out-of-classroom service learning experience for UNG students. The program will be built around a singular social issue about which student participants will become extremely knowledgeable. Alternative break programs have long been regarded as a high-impact practice, but such a program has yet to be implemented at UNG. We seek to provide a civic engagement focused experience for students that will have a profound and positive impact on their personal development as students and citizens.

**Dr. Chris Bell, associate professor, Department of English**  
***Mapping August Wilson's Hill District***

Abstract: August Wilson wrote ten plays, nine of which are set in the historically African American Hill District, a neighborhood that borders downtown Pittsburgh, Pennsylvania. There is a separate play set for each decade of the twentieth century. Collectively, the plays are known as The Pittsburgh Cycle or The Century Cycle. The playwright is one of the most esteemed writers in American history. As an August Wilson scholar, I have uncovered a critical hole in Wilson's work. As of now, there is no open source digital map of the area in Pittsburgh in which the playwright situated his plays. This is surprising, considering the amount of attention given to the intimacy with which Wilson writes about the Hill. My proposal is to create such a digital map of the areas Wilson mentions in his plays. The overall plan is to take photographs of the areas Wilson names in the plays and upload them onto a Google Map, labeling them with appropriate biographical, historical, and literary commentary. Furthermore, I have discussed this project with a current English major at the University of North Georgia, who is excited about this idea and is eager to collaborate with me. By collaborating with me, this student will gain an advantage toward his desire to attend graduate school. By centering this as an undergraduate research project, I envision future collaborations with students as the project grows and changes.

**Dr. Tanya Bennett, professor and dean of the Honors Program, and Jennifer Graff, associate professor,**  
**Department of Visual Arts**  
***Study Away at Daufuskie Island***

Abstract: The proposal for "Study Away at Daufuskie Island" seeks support for a collaborative program in which an English instructor and art instructor will team-teach Honors students (for the pilot) in the 2017 second summer session for 6 credit hours, ENGL 2160H and ART 1000H. The program's interdisciplinary "study away" pedagogy will, we believe, achieve both the outcomes consistently reached by study abroad and those of interdisciplinary and integrative learning. We will accommodate student need by teaching the first part of the program primarily online, with two to three face-to-face meetings, and the last five days in travel. With a focus on literature and art, this study away at Daufuskie Island will take students outside their home campuses and beyond their home communities for an integrative academic/real-life study of the Gullah culture and of the relationships among culture, art/literature, and identity, which will in turn provide an enhanced perspective on the general course content.

**Sheila Caldwell, advisor to the president on diversity**  
***Diversity film series***

The Diversity Film Series is designed to encourage and empower faculty, staff, and students to see the world from multiple perspectives. The film, *American Textures*, follows six young Americans of Black, White and Latino origin on a road trip through diverse communities in the southern United States to confront race through dialogue. The film will be featured on three campuses (Dahlongega, Gainesville, and Oconee). All five UNG campuses will participate. The film series on each campus will include a viewing of the film, strategic meeting with faculty and staff (to enhance critical thinking, cognitive flexibility, intercultural communication skills, leadership skills, cultural self-awareness, curiosity, open mindedness, empathy, active listening, problem solving and civic engagement), a classroom visit, and a follow-up consultancy session.

**Dr. Bikash Das, assistant professor, and Jerry Graveman and Selcuk Koyuncu, associate professors,  
Department of Mathematics**

***Mathematics enhancing student success and retention rate by implementation of active learning***

Abstract: Students' success and retention continues to be one of the biggest challenges for Remedial Mathematics classes. We are proposing an innovative approach to lower the retention problem and raise the student success for the students taking learning support math classes at UNG. This project incorporates the use of a free software learning environment along with active learning using teaching assistants in an emporium style setup.

**Bonnie Holmes, assistant professor, and Mariana Stone, instructor, Department of Spanish**

***Helping to learn: Connecting UNG Spanish majors & minors to the community***

Abstract: This project would bring Spanish majors and minors at UNG together with students in the Lumpkin County Elementary after-school program, to expand the current academic support given to non-English speakers currently enrolled at LCES. In doing so we will be providing an opportunity to our UNG students to put their academic knowledge to practice while helping meet the needs of an underserved population in the community. Research shows that literacy skills transfer from a first to a second language. Helping non-English speakers develop their literacy skills in their first language (in this case Spanish) will have a direct impact the future success of these learners in the English-speaking world, while giving our Spanish majors and minors an opportunity to practice their language skills in an authentic and meaningful context. Instructor

**Dr. Susan Hurley, assistant professor, Department of Clinical Mental Health Counseling**

***Collaboration between the University of North Georgia Clinical Mental Health Counseling Program and the South Enotah Child Advocacy Center***

Abstract: The South Enotah Child Advocacy Center provides a wonderful opportunity to coordinate efforts and promote collaboration between law enforcement, medical, judicial, and social service agencies during sexual abuse investigations thus reducing the traumatic effects to children. Through the use of a forensic interviewer the young victims of these crimes will only need to be interviewed once lowering the level of re-traumatization through the use of multiple interviews by multiple agencies. While the CMHC Community Clinic does not observe or participate in the forensic interviewing process, they contribute to the one-stop services by providing instant referral to the victim and the non-offending caregiver for mental health counseling services. The use of counseling provides the best opportunity to the victim and family to stabilize and reduce trauma, which helps the victim to heal. This may help to reduce the long-term damage referred to previously, i.e., teen pregnancy, substance abuse, etc. Because this is the first collaboration of its kind within the state of Georgia, this unique relationship may stand as a model for other universities and child advocacy centers. In addition to forensic and



therapeutic services, the CMHC Community Clinic in conjunction with SECAC will also provide professional training, an active research program, and prevention awareness initiatives.

**Kasey Jordan, instructor, Department of Nursing**  
***Subscription learning for nurse faculty orientation***

Orientation for new nursing faculty is a challenging phase of professional development with serious implications for student and departmental outcomes. Subscription learning is an emerging educational concept rooted in education psychology that shows promise as a tool to supplement the current orientation procedures in the UNG Department of Nursing. The proposed project includes the creation and evaluation of a pilot subscription learning orientation program for new nurse faculty. Additionally, data obtained in this pilot project could inform potential future explorations of subscription learning in a variety of learning environments. This project would result in the submission of two articles to peer-reviewed journals, submission of a conference presentation abstract, and pilot data to support a larger grant application to further explore subscription learning in health care.

**Dr. Minsu Kim, associate professor, Department of Mathematics**  
***A strategic combination of blended learning, Bloom's Taxonomy, and learning OER platforms in math classrooms***

Abstract: Adopting innovative pedagogy without an organized educational framework often obstructs student learning and success in math class. Although adopting open educational resources (OER) reduces student cost of learning materials, it is difficult to find qualified OER because OER are scattered across the internet everywhere. The first aim of this project is to boost student engagement, student-centered learning, and the learning process of Bloom's Taxonomy in advanced blended learning. The second aim is to provide affordable activities and high-quality OER at the right time and at the right level utilizing learning OER platforms for no-cost-to-students learning materials. This project will contribute to student success and student-centered learning inside and outside class and will encourage math instructors to adopt innovative pedagogy based on a systematic framework and learning OER platforms for reducing student cost of learning materials.

**Dr. Evan Lampert, associate professor, Department of Biology, and Steve Pearson, assistant professor, Department of English**  
***Science communication and literature education (SCALE): A learning community to improve scientific reading and writing skills***

Abstract: We propose to teach a learning community consisting of BIOL 1107K and ENGL 1101. We have conceptualized this community in response to an increasing need to focus on reading and writing scientific literature early in the curriculum. This community will feature a semester-long research project in BIOL 1107K, and each student will learn in ENGL 1101 to use original literature to write a full manuscript describing the project at the completion. Student teams will also present their findings to their classmates. It is our goal that members of this learning community will show a marked improvement in their ability to read and write scientific literature. We also hope that by presenting and publishing the results of this project, this project will inspire further collaboration between UNG STEM and Humanities colleagues. Assistant Professor

**Bobbi Larson, development officer, Office of University Advancement**  
***Ignited fundraising, sparked by innovative communications***

Abstract: With fundraising priorities for UNG more clearly defined and multi-millions to be raised in private support, it is important that each college / department increase their reach and ability to raise funds in the most effective way possible. This proposal supports professional development of faculty /

staff in the areas of agile and digital marketing to increase financial contributions. Following training, a focused communications and development plan will be developed and implemented for fiscal year 2017/18 in at least one college /department. Messaging content and frequency can easily be tested and results will be measured by digital metrics, response rates and dollars raised. Based on the success of the plan and activities within, all or portions of the program may be replicated in other colleges / units.

**Dr. Rosaria Meek, assistant professor, Department of Spanish, and Michael Kemling, instructor,  
Department of Visual Arts**

***Expanding new global horizons: An innovative approach to the teaching of Italian language and art***

Abstract: Our collaborative project, and subsequent proposal, grew naturally out of ongoing dialogues regarding teaching practices, shared research interests, and personal experiences in Italy. As both of us teach in the humanities, we appreciate and understand the importance of an interdisciplinary approach to our respective disciplines, which has served as the basis of our conversations. Our collective education, knowledge and experiences of Italian culture will serve as a foundation to our project. Although the type of project we are proposing is a first for the both of us, we purposively applied and were accepted into the 2016/2017 UNG High-Impact Practices Teaching Academy. In our process of researching and organizing how we could approach an interdisciplinary project, we realized that our ambitions for an innovative method to our classes perfectly dovetailed with the outcomes of the academy. Over the course of the academy, we will be developing the appropriate skillsets within current pedagogies that will encourage the success of our project.

Through experiential learning, our approach aims to develop a student's broader understanding of the global impact and contributions of Italy through its culture, language, art, literature, and history. We are proposing a First-Year Experience that is designed as a Learning Community, which will be a collaboration through two already-established courses (ITAL 1001 and ART1100). By bridging the two courses, it will foster an environment of learning under the LEAP initiative, in particular with our use of High-Impact Practices (H.I.P). Our aim is for students to investigate common topics through the lenses of Italian culture and art, socio-cultural issues, visual expression of identity, economic, and historic perspectives. Our project learning outcomes will be assessed through collaborative assignments and projects. The design of the Learning Community will enhance the student's critical and creative thinking, provide material for undergraduate research conferences and/or presentations, and also hopefully inspire a strong desire to attend a study abroad program in Italy.

In addition to the restructuring of both the ITAL 1001 and ART 1100 to accommodate our collaborative approach, the most exciting innovation is the application of our H.I.P. project developed in the UNG Teaching Academy.

**Dr. Clarke Miller, assistant professor, Department of Chemistry and Biochemistry**

***Investigation of the mechanism of salicylic acid synthesis by the MST family of enzymes.***

Abstract: The actual mechanism of the MST enzymes that convert chorismic acid to salicylic acid have never been directly explored. Previous experiments with similar proteins have resulted in a proposed mechanism in which these enzymes incorporate solvent water into the reaction. I have preliminary data that suggests that the currently accepted mechanism for this family of enzymes may be incorrect. When the original experiments were repeated with Irp9, the salicylate synthase from *Yersinia pestis*, the initial data strongly suggests that this family of enzymes may not incorporate solvent water as previously reported, but most likely retains water in the active site from prior reactions. I propose to repeat these experiments with several members of the MST family of enzymes to conclusively determine the enzyme mechanism.

**Dr. Sudhanshu Panda, professor, Institute of Environmental Spatial Analysis**

***Automated geospatial model development for stream bank erosion vulnerability analysis***

Abstract: Remote prediction of spatial vulnerability due to stream bank erosion, one of the four types of water erosion, is yet to be ascertained accurately. Universal Soil Loss Equation (USLE) or RUSLE models are able to quantify the erosion rate on spatial basis very precisely but not able to locate the vulnerable locations of the stream for stream bank erosion. Geomorphological characteristics of the stream valley and the watershed such as overbank floodplain level, drainage area, stream channel capacity, channel slope, and soils are some of the factors that influence the frequency, duration, and intensity of flooding and subsequent soil erosion on the channel banks. Riparian areas along the stream banks also support soil stabilization along the stream reducing stream bank erosion. Studies of inexpensive and efficient use of geospatial technology to predict spatial vulnerable locations of stream bank erosion are rare. The goal of our study is to develop an automated geospatial model in ArcGIS ModelBuilder using spatial data such as landuse, Digital Elevation Models, soil, and design flood discharges of various frequencies to determine vulnerable spatial locations on the streams of interest. The study is proposed to be completed in the 12-digit HUC watersheds covering the Upper Chattahoochee River and the exit point is south of city of Helena, GA (Figure 1). The two HUC12 watersheds used as study area are 031300010101 and 031300010102, the top two watersheds of HUC 8 Upper Chattahoochee watershed. Comprehensive ground truth will be conducted to ascertain the accuracy of the results. This study results will be added to two smaller studies of such objective to make the robust and innovative model process for stream bank erosion vulnerability analysis on spatial basis. The results of this innovative study is intended to be presented in an international conference, put in the researchgate site, and published in an open source high-impact factor journal.

**Dr. Andrea Perez Mukdsi, assistant professor, Department of Spanish**

***Fantastic Women***

Abstract: “Fantastic Women” is a three-part project that will have a positive impact on students, faculty and the larger university community. The project is invested in recovering the voices of women writers in the development of science fiction, fantasy and speculative writing. The first stage of the project consists of faculty research and involves participation in a national conference as well as archival research. The second stage includes the development of a new undergraduate course to be implemented in the Fall 2017 semester. The third stage is a campus-wide event known as a “marathon reading.” This event, which will promote and celebrate the work of women writers, will be interdisciplinary, cross-linguistic and collaborative.

**Dr. Patrice Prince, assistant professor, Department of Teacher Education**

***New undergraduate diversity studies certificate program***

Abstract: This Innovation Project proposes the creation of a new undergraduate Diversity Studies Certificate (12-hour) program that focuses on an interdisciplinary exploration of diversity related issues. Students who complete the Diversity Studies Certificate will learn to:

- Understand and appreciate the diversity of our human and natural world;
- Evaluate their own and other cultures in ways that go beyond stereotypes;
- Successfully interact, both professionally and personally, with others in an increasingly diverse domestic environment and an increasingly interconnected world;
- Critically reflect on their own social identities and on their positions with respect to others;
- Recognize and analyze the socially-constructed roots of oppression and privilege and how these have shaped them, the academic disciplines they study, and their society in general; and
- Become leaders in promoting diversity and inclusion.

A coherent program in undergraduate Diversity Studies will deepen and enhance existing programs by providing a mechanism and a base for cross-disciplinary work in undergraduate Diversity Studies. With the participation of scholars from diverse programs, who likely will provide instruction with a variety of approaches, and disciplinary locations, we will afford an opportunity for UNG students to gain exposure to the ways in which different disciplines operate in addressing issues of diversity.

*Note:* The University of North Georgia currently offers a graduate-level certificate program in diversity that is a distinctly different from the one proposed here. The current program is designed to “provide education and training in diversity for professionals from various industries including K-12, higher education, health care settings, as well as business and industry.

**Vincent Prior, coordinator of transfer and transition programs; Diana Barrett, coordinator of orientation and transition programs; and Nathan Cheesman, coordinator of orientation and student leadership, Office of Orientation and Transition Programs**

***Transfer student retreat***

Abstract: The transfer student retreat is an extended orientation program designed to support incoming transfer students to UNG. This retreat experience provides intentional programming to demonstrate an appreciation for a student’s previous college experiences, while also teaching them about how they can be better engaged as UNG Nighthawks. The program will focus on the academic and social engagement of these new students through the use of service learning, connections to faculty and administrators in informal settings, and networking opportunities with other new transfers and current transfer student leaders. As a typically overlooked student population in higher education, transfer students need more support structures that are targeted to them on our campuses. Those structures should show an appreciation for the unique experience and perspectives these students bring to the UNG community.

**Mallory Rodriguez, director of student life and leadership programs; Emily Sparrow, director of student services; Nathan Cheesman, coordinator of orientation and student leadership; Geovani Ayala, coordinator of student leadership; Michelle Eaton, associate director for enrollment management; Vincent Prior, coordinator of transfer and transition programs; Diana Barrett, coordinator of orientation and transition programs; and Darcy Hayes, director of first-year experience – Division of Student Affairs and Enrollment Management**

***Leadership certificate program***

Abstract: This project will employ a cross-campus collaboration to design and implement a Co-Curricular Leadership Certificate Program that specifically highlights UNG’s leadership mission and promotes the connection, engagement, and retention of first-year students, who research indicates are more likely to persist if they become meaningfully engaged within the first four to six weeks of the semester. While UNG has leadership experiences broadly supported and implemented through all aspects of the institution, there is currently no program that provides guidance to first-year students in understanding the variety of leadership programs that exist and how to engage in an intentional leadership pathway. The proposed Leadership Certificate Program will leverage current leadership opportunities, fill gaps with new programming, and track leadership participation across all aspects of the institution through both quantitative and qualitative data.

**Dr. Davison Sangweme, assistant professor, Department of Biology; Erin McIntosh, assistant professor, Department of Visual Arts; Dr. Evan Lampert, associate professor, Department of Biology**

***Moore Microbiology: an art gallery exhibition that raises awareness about microorganisms***

Abstract: We propose to install a unique outreach-focused exhibit at the Roy C. Moore Gallery August-September 2017. This exhibit will illustrate the sheer abundance and diversity of microbes in the

environment and on us. Visiting participants will contribute microbial samples from their hands and faces, and the samples will be cultured and affixed to the gallery wall. Other components of the exhibit include original artistic depictions of microbes and electron micrographs of microbial cells. The overarching aim of this project is to create awareness that not all microbes are harmful; in fact, most are useful. This project will also involve several UNG undergraduates, both staffing the exhibit and also collecting data from the microbial cultures. At the end of the exhibit, we hope to have altered the community's perceptions of microbes through education and to inspire more interdepartmental collaborations to achieve common goals.

**Dr. Jim Shimkus, assistant professor, and Anita Turlington, associate professor, Department of English**  
***Academic cross training: A WAC/WID initiative and clearinghouse at UNG***

While Writing Across the Curriculum/Writing in the Disciplines (WAC/WID) as an international pedagogical movement is not new, this project will promote and formalize a sustained WAC/WID initiative here at UNG. The proposed program includes three elements:

- A Faculty WAC/WID Council: Beginning with faculty from the disciplines of Education, Chemistry and Communications, who have participated in the Writing Fellows program, we will build a council of faculty mentors who will promote the program and mentor interested faculty in replicating successful writing activities.
- A WAC/WID Resource Clearinghouse: We will build the UNG WAC/WID Clearinghouse in elearning by identifying and cataloguing useful resources. We will also develop resources for faculty based on best practices at UNG.
- Training: In Spring semester 2017, we will offer three training workshops for interested faculty: Clear Writing Expectations, Interactive Writing Processes, and Meaning-Making Writing Tasks.

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