An international team of researchers, including UNC Greensboro Biochemistry Professor Ethan W. Taylor, has identified a significant association between COVID-19 prognosis and regional selenium status in China.

Selenium is an essential dietary trace element that over the last 40 years has been found to be a significant factor affecting the incidence, severity, or mortality of various viral diseases, in animals and humans. This has been studied most extensively in the case of HIV and AIDS, where selenium status has proven to be an important determinant of disease progression and mortality. As China has geographical regions known to have either extremely high or low soil selenium levels, one of the first human diseases associated with selenium deficiency was identified there, in a region of Heilongjiang province named Keshan.

Keshan disease, involving a potentially fatal weakening of the heart, eventually proved to have a viral cofactor (Coxsackievirus), but its incidence and severity were greatly reduced through dietary selenium supplementation. Other diseases associated with viral infections that had been endemic in these low selenium regions of China have been at least partially
controlled or treated by selenium supplementation. These include liver cancer associated with hepatitis viruses and “epidemic hemorrhagic fever” associated with hantavirus infections.

“Considering this history of viral infections that can be exacerbated by selenium deficiency, we hypothesized that selenium status might be a factor in the outcome of COVID-19,” Taylor said. “The study was made possible by the fact that for many cities in China there is accurate published data on the average level of selenium in human hair, which is highly correlated to dietary intake.”

Using cumulative COVID-19 outcome data from Feb. 18, the study found that in the city of Enshi, which has the highest selenium intake in China, the cure rate (percentage of COVID-19 patients declared “cured” by that date) was almost triple that of the average for all the other cities in Hubei province. In contrast, in Heilongjiang province, where Keshan is located and selenium intakes are among the lowest in the world, the death rate from COVID-19 was almost 5 times as high as the average of all the other provinces and municipalities outside of Hubei.

For 17 cities outside Hubei, the researchers were able to show a significant positive relationship between the reported COVID-19 cure rate and selenium status, although they emphasize that this is not proof of a causal relationship, as many possible confounding factors (such as age and comorbid conditions) were not accounted for in their study. However, the results do indicate further research in this area is necessary and may guide ongoing public health decisions.

“A role for selenium may also help explain phenomena such as the recently reported blood clotting in COVID-19, because selenium is known to have an anti-clotting effect. There have also been reports of heart problems like myocarditis, which is reminiscent of Keshan disease, which was a viral myocarditis,” said Taylor.

“These findings are particularly significant for myself and Prof. Jinsong Zhang” (who are joint first authors on the new study), he added, “because we had presented research findings at an international symposium on SARS in Beijing in 2003, strongly suggesting that selenium would be a factor in SARS pathogenesis. Many of those observations we made 17 years ago still apply to the SARS-Coronavirus-2, the cause of COVID-19, which is a close relative of the original SARS virus.”

The international collaboration was led by Dr. Margaret P. Rayman at the University of Surrey in the United Kingdom.

The research has been published in The American Journal of Clinical Nutrition. Click this
Spartan staff go above and beyond during crisis

While students and faculty have been working hard to finish their courses and prepare for final exams, papers, and presentations, there’s another group that has been working diligently – often behind the scenes – to make sure the University continues to run despite the COVID-19 pandemic.

That group is UNC Greensboro’s nearly 2,000 staff members.

From Financial Aid to the Dean of Students Office to Information Technology Services, UNCG staff have been going above and beyond. Many are working from home and juggling responsibilities as professionals, spouses, and parents. Some, given the nature of their jobs, continue to report to campus. The University is grateful for all the work that continues to be carried out, despite difficult circumstances.

As a way to recognize the hard work of UNCG staff, we’ve highlighted just a handful of the many employees who continue to support the University’s mission in the midst of a global pandemic. We encourage other departments across campus to highlight their staff members on social media with the hashtag #SpartansTogether.

We asked these Spartan staff two questions: How has your work changed due to COVID-19? And how are you staying positive?

Here’s what they had to say.
Megan Karbley
Assistant Dean of Students, Dean of Students Office

“My work has shifted more toward working with students directly impacted by the move to online classes. I speak on the phone or via email daily to students who have experienced a tough transition and do my best to let them know about the resources available to them on and off campus.

“I am trying to take each challenge one step at a time. The last six weeks have taught me that there are few guarantees, and focusing on the small things gets me through my days. For example, I try to focus on the students I am able to assist and check in with them regularly. Hearing how much that means to them helps me stay positive.”
Zachary Smith  
Director, Office of Emergency Management  

“Like many others, the virtual way of life has taken over. My role requires ongoing meetings and conversations with stakeholders, which are typically best facilitated through in-person interactions. Now that we are all practicing social distancing, all interactions are now through Zoom, Facetime, or other virtual means.  

“As a coordinator of emergency activities, I am most humbled when the folks I work with do their absolute best to solve hard problems during challenging times. And that is what I am seeing right now. Watching our dedicated faculty and staff continue to push forward keeps me both positive and inspired.”
Angela White-Dobbins  
Administrative Associate, Counseling Center

“Not being able to see or interact in person with the students has been an adjustment for me. With all of my interaction with students being over the phone, now I must be able to listen for indications of distress in the student’s voice, instead of seeing or reading it on their face. I always stress to each student that the Counseling Center is here to help them in any way and to assist them in the adjustment to this new COVID-19 world.

“I am always positive, and I do not focus on the negative or things I cannot change. I have been here at the Counseling Center for over 13 years, and I love my job and the students that we serve. This is just a setback, an opportunity to do things differently. So, I strive to always do well in what I do and keep a positive attitude while I am doing it.”
Trey Ricks
Admissions Counselor and Social Media Coordinator, Office of Undergraduate Admissions

“My social media duties have expanded to manage our student texting platform, as well as editing videos for our virtual visit options on our website, and hosting weekly live streams on our Facebook page for new and prospective students. The work itself hasn’t changed because of the outbreak, but the means of completing it has changed greatly. All meetings happen over Zoom, students text us when they have questions instead of calling or coming into the office, and my email inbox has never been more crowded.

“For me, staying positive involves going running a few nights a week, cooking a lot more, and baking too much bread.”
Anita Warfford
Instructional Technology Consultant, College of Arts and Sciences

“Broadly speaking, my job has not changed significantly. I still provide the same services and I am able to do my work from home easily, though I do miss working with instructors in person. However, I am now providing more support to more people at once. Also, with the emergency move to remote instruction, I have been providing much more support for synchronous instruction (via Zoom) than normal.

“I do enjoy my office mates (husband upstairs and two cats with me downstairs). I have also taken up every hobby that I have ever had. I like reading, gardening, and interior design, and I have started painting and cross-stitching again.”
Dwayne Hines  
Assistant Director for Building and Environmental Services, Housing and Residence Life

“As you can expect, my work has changed dramatically. In my role you have to consider the safety of staff and students. There are tasks and functions of our job that still need to be completed, while making sure we keep staff safe and respect those who may not be able to come to campus for many different health concerns.

“I’m proud to see people pulling together and helping others. People are being creative again on how we do things. I believe if we continue to look after one another, take precautions, and stay positive, we will come back a stronger nation.”
Debra Toler
Senior Counselor for Scholarship Operations, Financial Aid Office

“The majority of our office is working from home currently. While many of our processes were already web-based, we still processed a fair amount of paper forms and documents so we have had to find ways to work around that. It has also been a bit isolating working from home. We are all pretty social so it’s been tough not having those face-to-face interactions each day.

“I remind myself that this is only temporary! That it is the best option to keep the UNCG community healthy. I also love my son and husband, so seeing them more has actually been one of the highlights.”
Kevin McClain
Manager of Cloud Collaboration & Productivity Services, Information Technology Services

“The CCPS team has always been focused on helping students, faculty, and staff take advantage of cloud-centric tools. Now that we are staying home, these tools are more than in demand – they are essential. Every day I am learning of new challenges Spartans are facing. How will course material be accessed? How will this dissertation defense be conducted? How will this search committee function? We are actively working to address those needs: solving problems with our existing tools, researching new methods, and offering new tools.

“I try to take morning walks in my neighborhood. I am calling fellow congregants to offer a word of encouragement. Lastly, after consulting with colleagues and wrestling with the need to stay home but also engage in some self care, I have taken some time these past weeks to slip away and go fly-fishing, the most social-distancing sport ever!”
Megan Severn  
Executive Residence Captain, Spartan Catering

“I went from catering events all around campus to preparing and serving meals to students in the Spartan Market. I am enjoying this time ‘catering’ to our students who have remained on campus. I know how stressful this time is for them, and being able to bring a smile to their faces by interacting with them for a few moments each day has been one of the most rewarding moments of my career.

“I am staying positive during this time by making the most of my time at work, including dressing up as the Easter Bunny and passing out baskets to the students. I also really enjoy reading and being in nature, so I am trying to take advantage of this time and read outside, listen to the birds, and go for a walk.”

UNCG to honor Class of 2020 with virtual celebration
The Class of 2020 will be remembered as perhaps the most resilient graduating class in UNC Greensboro history.

Due to the COVID-19 pandemic, graduating students were forced to leave campus in mid-March and finish their last semester online. They have had to adapt quickly to virtual capstone projects, presentations, and dissertation defenses, while facing economic challenges, health concerns, and uncertainty about the future.

The in-person commencement ceremony has been postponed, and the University is working to identify a future date to hold this traditional ceremony. Nevertheless, the Class of 2020 deserves to be recognized and celebrated for its many achievements and the way it has responded to this global crisis.

Based on survey responses from students, the University has planned a special virtual celebration to honor the nearly 3,000 students who will earn their degrees in May.

The online festivities will take place May 4-11. Here’s what you need to know:

The University’s news site - news.uncg.edu - will transform into the online hub of the virtual celebration.

The website will include profiles of graduating students, video messages from Chancellor
Gilliam and Provost Dunn, and other special content honoring our graduates.

**UNCG’s social media channels will have new GIFs, stickers, and frames, and all the Class of 2020 content you’re looking for.**

Share your favorite UNCG memories and celebrate your accomplishments on social media using the hashtags #UNCGGrad, #UNCGWay, and #SpartansTogether. UNCG will share Spartans’ posts throughout the week.

Instagram will have themed story templates – access them in the the #UNCGGrad highlights on the @UNCG page. Themed **GIFs and animated stickers** are available to add to posts. Facebook frames are also available [here](#) and [here](#). And you can virtually “turn your tassel” with a new Instagram and Facebook story filter. The Instagram filter is available [here](#), and the Facebook filter is available [here](#).

**Share your video memories**

Graduates are encouraged to share videos speaking about their favorite UNCG memories and accomplishments on Instagram and Twitter. Tag @UNCG/#UNCGGrad.

Or email your videos (filmed in horizontal orientation) to social@uncg.edu for a chance to be included in a video compilation. Learn more on our Instagram channel.

[Find out more about our celebration of the Class of 2020!](#)

[Click to email your video](#)

**Each college and school will celebrate their students in unique ways.**

Check in with your college or school to make sure you’re connected to their celebrations. Links to school celebrations are listed below, with more to come.

- [College of Arts and Sciences](#)
- [School of Health and Human Sciences](#)
- [College of Visual and Performing Arts](#)

**The annual Red Carpet Reception for new graduates will go virtual.**

Graduating students, Spartans of Promise, and other young alumni leaders will have the opportunity to give a toast to the Class of 2020 using UNCG Alumni’s social media channels.
Alumni, faculty, and staff are also encouraged to participate by giving their well-wishes and pieces of advice as “Words of Wisdom” videos or quotes on social media.

The Alumni team will host its traditional #UNCGNewAlum photo and video contest throughout the week. The office will accept graduation photos that have already been taken on campus or photos using a virtual UNCG Zoom background or Instagram sticker. The Alumni office will also spread Spartan spirit by accepting videos from students singing the chorus of the UNCG alma mater (which can be entered into the #UNCGNewAlum contest). Make sure to use the #UNCGNewAlum hashtag and tag @UNCGAlumni on social media. Please be sure your social media profile is public to enter your submission. Learn more and check out the Zoom backgrounds at alumni.uncg.edu/uncgnewalum.

Finally, every graduating student will receive an email from the UNCG Alumni team to claim their free Class of 2020 T-shirt, featuring an original design celebrating all 2020 grads from all University schools.

**The UNCG Mobile app will launch a special “Celebrate 2020” persona.**

This new persona will feature a variety of content – videos, profiles of graduating students, and social media posts – from our virtual celebration of the Class of 2020.

In addition, UNCG Mobile has launched a UNCG sticker pack for Apple devices that lets you add UNCG landmarks, icons, and more to your iOS text messages and FaceTime calls. To access the sticker pack, make sure you’ve updated your UNCG Mobile app to the latest version, and look for the #letsgoG sticker image with your other sticker packs on your text screen.

**The University has also planned some non-virtual ways to honor grads.**

The names of all graduating students will be printed in the Greensboro News & Record, Charlotte Observer, and News & Observer on May 10. On May 8 and 9, Greensboro’s downtown buildings will light up in blue and gold to celebrate both UNCG and N.C. A&T graduates. Last but not least, UNCG will fly an airplane with a special graduation banner over Greensboro and Raleigh on May 8. The best time to go outside and see the plane will be shared as the date approaches.

UNCG expects to award 2,211 bachelor’s degrees, 616 master’s degrees, 129 doctoral degrees, and 12 specialist in education degrees. Approximately 116 of these degrees will be awarded to international students.
Class of 2020: Irvin Maldonado

Picture this. An art major is working away on his photography project when suddenly a pandemic strikes. As his University moves fully online for social distancing, he has to return home and find a way to continue his coursework and art practice remotely.

UNC Greensboro senior Irvin Maldonado had to do just that.

“I usually need the lighting studio on campus. But I’ve shifted my approach to just going outside and video recording or photographing in my backyard,” he says.

Maldonado, part of the Class of 2020, is one of many students who have had to respond quickly to a changed world, and charge ahead with their coursework and art-making. It hasn’t been easy, and there are challenges.

“My mental headspace is still not completely adjusted. And you have to find a way to stay motivated. It’s just a strange transition. I definitely miss my peers.

“Before leaving campus I was working on a live video and projection installation piece where the audience could see themselves displayed infinitely in between a camera and its live-feed on a screen. It was planned to be realized for the end of the semester, but social distancing and my abrupt relocation put me far away from the physical resources that
UNCG’s art building offers.”

The photography major is a first-generation student whose parents immigrated from Mexico. He’s finishing up the semester in his hometown of Hickory, North Carolina.

Maldonado’s artistic practice is influenced by the historical art movements of Surrealism, Futurism, and Fluxus. You can see evidence of that influence in his work, as he plays with the relationship between time, light, and space. Some of his work involves experimenting with a digital scanner to manipulate images that result in abstract graphics.

Maldonado was the official photographer for the Greensboro Contemporary Jewish Museum during a collaboration between the Jewish Studies Program and the College of Visual and Performing Arts, and was an integral part of a public art installation project called “The Lawn Sign Project” that took place within the Prospect Park neighborhood in Brooklyn, New York.

Last summer, with the aid of funding from UNCG’s School of Art, he was able to attend an artist workshop at the Anderson Ranch Arts Center in Colorado. The opportunity gave him a chance to explore different image-making techniques.

Maldonado came to UNCG because he was drawn to the strength and offerings of the art program, and because he was attracted to Greensboro. He’s learned a lot while at UNCG, and has been inspired by realizing how all of his courses inform and influence one another, inside and outside of art.

“I’ve been able to make friends with chemistry, biology, computer science, and kinesiology majors as well as art majors,” he says. “And within our different fields, we were able to make connections with each other in terms of how we see the world and how we’re learning basically the same things but in different ways.”

The COVID-19 pandemic has had a big impact on Maldonado, and unprecedented world events have made him reconsider his path after graduation. Originally thinking he’d go into commercial photography, he is now considering alternatives.

“I think our economic system has flaws. And so I’m trying to think about how to restructure or reevaluate how that system is set up and make it sustainable, make it ethical. I want to see how – with what I know and what I’ve learned – I can shift my focus to doing something that’s sustainable.”
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Find out more about our celebration of the Class of 2020!

Click to email your video

Story by Matthew Bryant, University Communications
Photography by Irvin Maldonado

Class of 2020: Kyle Booker

2020 graduate of the UNC Greensboro Museum Studies master’s program Kyle Booker

For graduating master’s student Kyle Booker, the study of public history and historical resources is both looking back and looking forward.
“Figuring out who we used to be was a really big deal to me,” says. History has been transformative for him, in growing personally, in connecting him with people and their legacies, and in showing him how he can be a part of community growth.

Booker grew up in western North Carolina, in Asheville, where he visited the Biltmore Estate at least once a year. His father led tours on occasion and as a family they not only marveled at the majesty of the grounds and buildings but also contemplated the difficult moments in the history of the estate.

After earning his BA in history from N.C. State in 2017, he came to UNC Greensboro with the end goal of working at a museum and in public history. His plan is to find a position that involves creating educational programs, leading tours, and creating North Carolina history events that are relevant to local communities.

Now, having just completed UNC Greensboro’s program in Museum Studies, one of two master’s concentrations in the Department of History, he has had extensive opportunities to engage in hands-on historical research and public history dissemination.

“It’s not only talking about the theories, but really go-and-do, which was invaluable. Our program has given me a lot of tools – a great diversity of skills that I really want to put into practice.”

During his first year in the program, he assisted with an exhibition and event focused on Greensboro’s former polio hospital. In his second and final year, in collaboration with his cohort of fellow students in the Public History program, he led tours and created a video for the program’s presentation of “Patient No More.” The traveling exhibition, stationed in Greensboro at the International Civil Rights Center and Museum, commemorated the longest occupation of a federal building in the United States, for a protest that advocated for disability rights and legislation that prohibited discrimination based on physical ability.

Last summer, Booker served as an intern at the Charlotte Hawkins Brown Museum in Burlington, where he worked with artifacts, designed public outreach messages, and helped curate a lecture series. During his final year at UNCG, he has worked with the Greensboro History Museum for his capstone project, “The Right to Vote: Indigenous Struggle for Suffrage.” His project has been part of an exhibition on democracy. He has created online learning modules that survey the history of Native American voting rights in North Carolina and is producing a podcast episode that will become part of the museum’s “History Notes” podcasts collection.

“I really care about a lot of the things that are not right and not getting better – racial injustice and racial issues,” says Booker. “I really want to get in the middle of that and to try
to open up conversations more and by telling histories of people who have been previously silenced or shut out. History provides them a platform to break out in new ways and for communities that have had conflict to come together and heal, or to forge new directions. It’s not just the cliché of if we don’t learn from the past, we will be doomed to repeat our mistakes, but really, it’s figuring out who we are and from that we can find out where we’re going."

Following the COVID-19 stay-at-home orders in March, Booker continued working on the podcast, and remotely recorded a crucial interview, with a Lumbee tribe member.

“It’s important to me to focus on community members and the people who will walk in and see or hear things that may represent them. We’re trying to reflect a piece of an identity, and you want that to be as true as possible,” he says. “That’s something the Greensboro History Museum impressed upon me a lot.”

At UNCG, Director of Public History Ann Parsons has also inspired him, teaching about day-to-day operations of museum work and the process of connecting with people to gather knowledge and impressions.

As he anticipates moving to a position at a museum or historic site in North Carolina, Booker holds onto the guidance he received at UNCG in that realm, because he knows that the stories of individuals not only build museum exhibitions, but our collaborative cultural identities and the way we design our societies going forward.

“Through my work, I want to encourage other people to get involved in history and make a difference in communities,” he says. “Studying the reasons and rationales for what does it mean to be American, and the diversity of experiences and stories - those conversations are critical in building a society that’s nurturing, inclusive, and caring.”

He sees that the age of COVID-19 is a difficult time for his profession, as it is for many, with the biggest challenge being trying to represent history to the public without a physical environment, but he has thoughts for how public history can be enhanced through this challenging time.

“One thing I would hope people would find in this time is that virtual accessibility is really important. Virtual tours and walk-throughs and doing historically accurate interpretations of video or audio recordings, or even reading out historical documents, can bring a lot of value when you can’t be there in person,” he says. “I hope this time will help build the infrastructure around these virtual resources and that this situation will bring that into focus.”
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Find out more about our celebration of the Class of 2020!

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Story by Susan Kirby-Smith, University Communications
Photography by Martin W. Kane, University Communications

Campus climate student survey: support systems

Note: The following is based on a pre-COVID-19 survey, and although the University has since established fully-online teaching, learning, and administrative support, the survey’s findings are still very relevant and important to understanding our students’ perception of UNCG campus culture and support.

What do students think about the support systems available on campus?

In order to address that question, the iBelong Project was launched in Spring 2019 to better understand student experiences at UNCG. The project utilized the Culturally Engaging Campus Environments (CECE) survey developed by the National Institute for Transformation and Equity.

This is the second of a three-part series that highlights the results of the survey, and how that information can be useful for faculty and staff in their interaction with students. You can read part one of the series here.

UNCG serves numbers of students from traditionally at-risk populations, including one-third who are first-generation, which increases the importance for support services to help them be successful. The CECE survey provided data about student perception of the level of support provided on campus.

When students were asked if they had someone on campus (whether peer, faculty, or staff) they trusted for support, 70% of respondents agreed they found that support at UNCG.
When asked about commitment about their success, 76% agreed/strongly agreed that educators at UNCG were committed to their success. Further, 79% of students agreed/strongly agreed that educators cared about them at UNCG.

One notable difference was when students were asked about regular check-ins by faculty/staff at UNCG. 39% of students reported they received regular check-ins by someone at UNCG. While many students might not need this level of support, what we know about our student demographics and the data on student success shows that proactive support is important for student success, particularly in the first 5 weeks of the semester.

The question for both faculty and staff, then, is how to provide proactive support at the scale needed for a 20,000+ student campus. Various groups across campus are having conversations about how to best meet the needs of students. This issue is especially critical, considering the University’s shift to online learning.

How was this Culturally Engaging Campus Environments survey conducted? 7,000 undergraduate students were randomly sampled from the UNCG roster to provide a representative sample of our student population. Selected students were then invited by email to complete the survey, and students needed to complete at least the first major section – 53 questions (21%) - of the survey in order to be included in the final sample. The final sample used to compile the results included 1,127 undergraduates, including online and transfer students, and their demographic data mirrored the general demographics of the UNCG student body.

The survey is based on a conceptual framework that identifies external and internal factors that impact student success, some of which include family, finances, employment, demographics, initial academic dispositions, and academic preparation. It seeks to showcase student voices and create conversations about inclusive excellence, learning, and sense of belonging. The specific goal of the iBelong Project is to understand how students experience our campus now, and how to help the University better meet the learning, professional, and personal needs of all of our current and future students.

A full report can be found at UNCG’s iBelong website sa.uncg.edu/ibelong. A feedback form on the website allows you to share your reaction and input.

**Dr. Noel Mazade**

**Dr. Noel Mazade (Office of Research and Engagement)** received new funding from North Carolina State University for the project “Nonprofit Leadership Fellows Academy.”
The NC State Institute for Nonprofits in partnership with NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services, and UNCG will deliver and evaluate the Leadership Fellows Academy for executive directors, owners, senior staff and/or board chairs of consumer operated nonprofit organizations across the state (“Fellows”) and provide mentorship for program alums. The intent of the Leadership Fellows Academy is to inculcate leadership capacities in individuals, throughout the organizations they lead, and within the communities in which they live and serve.

The UNCG Office of Research and Engagement will provide co-design of the academy. They will deliver several modules both online and face-to-face for the academy and will provide co-design services and facilitation for the planning the Academy.

**Dr. Regis Kopper**

Dr. Regis Kopper (Computer Science) received new funding from the DOC National Institute of Standards and Technology for the project “Design, Prototyping and Evaluation of Next Generation Public Safety User Interfaces.”

This project addresses Goal 2 of the NIST Public Safety Innovation Accelerator Program - User Interface (PSIAP-UI): Research on the Effectiveness and Transferability of AR/VR Simulations.

The project laid out in this proposal will contribute the design, prototyping, and evaluation
of a collection of public safety user interfaces (UIs) leveraging next generation technology which is being enabled by FirstNet and NIST PSCR. These UIs will be made possible by high availability high-speed networks, advanced display systems and precise location services. While many of these technological advancements are not yet available and research and development are currently under way, UIs that make use of these technologies to benefit public safety protocols should be designed, prototyped and evaluated so that they can be implemented as the technology matures.

Researchers propose to use immersive virtual reality (VR) as a simulation platform to evaluate next generation public safety UIs. Through VR, they can achieve high levels of realism with computer simulation. Researchers will leverage Duke University’s highly immersive VR simulation system, the Duke immersive Virtual Environment (DiVE) as a gold standard for VR simulation. Evaluating novel UIs for public safety in the DiVE will allow them to understand user performance in a high-fidelity, highly immersive, projection-based system. The DiVE, however, is a unique infrastructure and expensive to build in other settings. VR headsets such as the Oculus Rift and HTC Vive are highly immersive while being reasonably-priced and widely available, which is consistent with the reality of many public safety organizations.

Researchers will evaluate all UIs designed and prototyped over the course of this project in the DiVE and in available VR headsets. Through comparative analysis between the display types, they will generate guidelines highlighting when it may be worth the cost of a projection-based system and when an HMD will suffice. In order to fully understand the needs and expectations of first responders in all disciplines, researchers will collaborate with Durham Fire Department, Wake County EMS and Hillsborough Police Department.

Researchers will also leverage a partnership with TJCOG, a multi-county council of governments in North Carolina for access to other Public Safety Organizations (PSOs) in the region. This proposal aims to design, prototype and evaluate user interfaces for the next generation public safety ecosystem and its first responders. Researchers will address the goals of this proposal by working with PSOs in four distinct phases: (1) requirement analysis, (2) prototyping and evaluation of interaction techniques for public safety UIs, (3) prototyping and evaluation of comprehensive public safety UIs, and (4) prototyping and initial evaluation of a cross-discipline public safety UI.

Each phase will advance the knowledge necessary to move on to the next one, and the final outcome of the project will have a transformative impact on the adoption of next generation technology for all public safety disciplines by offering a collection of user interfaces demonstrated to be effective and efficient in the context of each PSO specific requirements.

The methods to achieve the goals of this proposal involve working closely with PSOs
through the course of the project, utilizing iterative design process with the end user in the
loop and performing controlled user studies with the target user population in the public
safety community. The results of this research will be disseminated in various ways.
Researchers will publish academic research papers to impact the research community. They
will make all the code from developed applications, UIs and virtual environments available
as open source to facilitate adoption by the community. Finally, a curated website—the
Public Safety User Interface Resource Library—will contain all findings from the project,
with care to make it accessible to the general population and specifically to public safety
stakeholders, including tutorials and other documentation important for the adoption of the
products resulting from this project by other entities.

Dr. Joanne Murphy

Dr. Joanne Murphy (Classical Studies) received new funding from the Institute for
Aegean Prehistory for the project “Kea Archaeology Research Survey: Testing the Value of
Survey Data.”

The study of the ancient remains on the surface of the ground, as opposed to excavation,
has dominated the methodological debate in Greek archaeology. The project will make a
significant contribution to this debate by testing the longevity of survey results using the
Greek island of Kea as a case study. Kea (or Keos) was surveyed in 1983-1984 by an
international team of archaeologists.

During the twenty-five years since the survey was conducted, much of the activity on the
island has changed; more houses are being built along the coast and less farming is being
carried out in the fields. These changes in activity alter access to and visibility of
archaeological sites. The vicissitudes of activity in the landscape raise the question of the
accuracy and longevity of conclusions drawn from survey.

This project aims to question the long-term validity of survey data by resurveying Kea using
the same methodologies as the original surveyors and an alternative set of methodologies to
see if we can still reach the same conclusions twenty-five years later. This will be the first project of its type in Greece and has the potential to assess and refine our appreciation of the value of survey as a reliable archaeological research method.

The general underlying assumption of surface archaeology is that the landscape recreated from survey data is an accurate picture of the ancient landscape that informs us about land use, population density, politics, and trade in antiquity. The veracity of the assumption has yet to be tested.

Researchers will continue studying the artifacts collected in 2012-2014 and take samples of ceramics, lithics, and sherds from Kephala and Paouras for scientific sampling to reconstruct the early technologies and networks on Kea and in western Aegean.

**Newsmakers: Gilliam, Nichols, Moss Street, Martin, White-Dobbins, and the Class of 20200**

Whether researchers with timely insights or students with outstanding stories, members of the UNCG community appear in print, web and broadcast media every day. Here is a sampling of UNCG-related stories in the news and media over the week:

- MyFox8 spoke to Chancellor Gilliam about UNCG’s plans for the future. [The interview.](#)
- Father-daughter nursing duo Les and Sara Nichols were featured on a MyFox8 broadcast. [Watch here.](#)
- The News & Record highlighted the Moss Street Partnership School’s distribution of iPads to students. [The article.](#)
- SGA president Hunter Martin was interviewed by Watch the Yard. [The feature.](#)
- Angela White-Dobbins, administrative associate in the UNCG Counseling Center, spoke to WFMY News2 about the stress of students going online. [The piece.](#)
- The News & Record highlighted UNCG’s plans to honor the Class of 2020. [The article.](#)