**Research Teams in Psychology**

**PSYC 4970 and PSYC 4980**

*SPRING 2023*

*For more detailed information concerning PSYC 4980 (Creative Inquiry) you may visit the University website at* [*http://www.clemson.edu/academics/programs/creative-inquiry/projects/current-projects.html?college=COBBS*](http://www.clemson.edu/academics/programs/creative-inquiry/projects/current-projects.html?college=COBBS)

**Object Use in Children with Autism**

Students interested in graduate school in psychology or any health-related field who have a GPA of 3.0 or higher and can stay involved with the project for at least 2 semesters, are welcome to apply for this research team. For this project, students will explore how individuals with Autism interact with everyday objects.

For more information, contact **Dr. Jennifer Grandits** at [jbisson@clemson.edu](mailto:jbisson@clemson.edu)

**The Use of Compression Clothing in Children with Autism**

Students interested in graduate school in psychology or any health-related field who have a GPA of 3.0 or higher and can stay involved with the project for at least 2 semesters, are welcome to apply for this research team. For this project, students will explore how medical-grade compression vests affect physiological stress and observed behavior of children with Autism (in public settings). For this project, students will be working directly with individuals diagnosed with Autism Spectrum Disorder (and their families).

For more information, contact **Dr. Jennifer Grandits** at [jbisson@clemson.edu](mailto:jbisson@clemson.edu)

**Personality Development & Applications**

The aims of the research group are to study contributors to personality development and identify real-life implications of personality research findings. In particular, the group is interested in understanding how personality findings can be applied within legal settings. For instance, research suggests that personality impacts the performance of children as eyewitnesses during forensic interviews, as well as the perceptions of jurors when determining witness credibility.

For more information, contact **Dr. Ben Cotterill** at [bfcotte@clemson.edu](mailto:bfcotte@clemson.edu)

**Aging and Decision-Making**

Decision-making is a prevalent part of everyday life, and the choices we make can have significant consequences across all stages of the lifespan. The purpose of this CI Team is to examine adaptive and maladaptive decision-making strategies that occur with healthy aging.  This research seeks to assess how social, cognitive, emotional, and motivational factors influence decision-making.  Understanding these factors may allow us to develop decision aids that can improve decision-making outcomes with age.

For more information, contact **Dr. Kaileigh Byrne** at [kaileib@clemson.edu](mailto:kaileib@clemson.edu)

**Decision-Making and Risk-Taking**

The purpose of this Creative Inquiry team is to conduct research on the (1) effect of emotion and reward motivation on goal-directed decision-making as well as (2) how individual differences, such as personality and susceptibility to performance pressure, affect risk-taking behaviors.  Decision-making is an inescapable, prevalent phenomenon that can have significant consequences.  This research aims to understand factors and cognitive mechanisms that affect decision-making and risk-taking.

For more information, contact **Dr. Kaileigh Byrne** at [kaileib@clemson.edu](mailto:kaileib@clemson.edu)

**Measuring Functional Brain Asymmetry in Realistic Settings**

Functional Brain asymmetry (the fact that the hemispheres of the brain show consistent differences in the type of cognitive and motor functions they control) has been known for over a century and is generally considered as one of the fundamental aspects of brain organization. Nonetheless, the reason why the brain is functionally asymmetric remains unclear. One of the leading theories proposes that a crucial advantage that brain asymmetry may offer is to increase neural capacity, because specializing one hemisphere for a particular function leaves the other hemisphere free to perform other (additional) functions. However, to date the type of evidence showing a relationship between behavioral performance and degree of functional hemispheric asymmetry is quite limited. One of the main reasons for this is that most current imaging studies (i.e., fMRI studies) of functional hemispheric asymmetry are conducted in highly artificial settings which drastically limit the type of cognitive/behavioral tasks that the subjects can perform. As a solution to the above-mentioned limitations of current research, I am developing a research program in which 1) the subjects are engaged in cognitive and motor tasks performed in more realistic settings, and 2) measures of brain function are obtained using functional transcranial Doppler technology (fTDS), a portable and fully non-invasive imaging technology, based on the same principles and technology of ultrasound imaging.

For more information, contact **Dr. Claudio Cantalupo** at [ccantal@clemson.edu](mailto:ccantal@clemson.edu)

**Social Psychology**

Students on this team examine the interpersonal experiences of people in daily life, with a particular focus on aversive interpersonal behaviors. Specific focus topics include cyberbullying, mass shootings, and complaining.

For more information, contact **Dr. Robin Kowalski** at [rkowals@clemson.edu](mailto:rkowals@clemson.edu)

**Perception & Action: Studies in Virtual Reality, Haptic Surgical Simulator, Robotics and Affordances**

Students will assist in conducting experimental research in one of a number of ongoing projects involving visual perception in virtual reality, touch and muscle perception in a laparoscopic surgery simulator, tele-operated robotics and/or the perception of “affordances.” "Affordances" are the things that can be done with the surfaces of the environment, such as whether an area on the floor is "step-over-able" or whether the width of a doorway is "pass-through-able." In a series of experiments, we will investigate the accuracy of perceptual judgments pertaining to a variety of affordance behaviors, such stepping over, jumping over, passing through, whether or not an object is reachable, whether or not a short incline is stand-on-able, etc. Students are expected to enroll in the CI project for 2-4 semesters and they should enroll on Psyc 4980 Team Based research for 1-4 credits during each of these semesters. Either before or during their first semester of involvement on this team students should take Psyc 4220 with Dr. Pagano, unless arrangements are made to waive this requirement.

For more information, contact **Dr. Christopher Pagano** at [cpagano@clemson.edu](mailto:cpagano@clemson.edu); **Bala Raveendranath** at[braveen@g.clmeosn.edu](mailto:braveen@g.clmeosn.edu)**,** and **Elenah Rosopa** at [erosopa@clemson.edu](mailto:erosopa@clemson.edu)

**Courage and Positive Psychology**

This team investigates all aspects of courage, or taking a worthwhile risk. Our research is framed in the broader context of positive psychology, which is the study of positive states and traits. New team members will be expected to work on current projects in different stages of development (including research design, data collection, data coding, data analysis, and write-up) as well as attend a once-weekly lab meeting at the time posted in iROAR.

For more information, contact **Dr. Cynthia Pury** at [cpury@clemson.edu](mailto:cpury@clemson.edu)

**Brain Tips**

This CI team uses popular press and scientific literature to develop short, memorable tips about the human brain to share on social media. The team reads about and summarizes a wide range of topics that is of interest to college students including literature on study tips, emotion, decision-making, well-being, and health. We share information on Facebook, Twitter, and Instagram. Please note that students are expected to work with the team for a minimum of 2 semesters.

For more information, contact **Dr. June Pilcher** at [jpilche@clemson.edu](mailto:jpilche@clemson.edu)

**Stress, Health, and Well-Being**

This research program examines a range of topics and research paradigms focused broadly on stress and how stress impacts our health, behaviors, performance, and well-being. Our research incorporates many topics including sleep and sleep loss, physical activity and sedentary behavior, thermal stress, self-control, and mindfulness. We use a wide range of methods and data collection including physiological measures and surveys. The broad goal of this research effort is to develop intervention strategies to improve health, performance, and well-being in the workplace and educational settings. Please note that students should anticipate working on this team for a minimum of 3 to 4 semesters.

For more information, contact **Dr. June Pilcher** at [jpilche@clemson.edu](mailto:jpilche@clemson.edu)

**Equality and Empathy**

The purpose of this CI team is to explore some factors that affect perceived equality between groups and empathy towards others in society. Topics may include examining what influences the success of underrepresented groups in the workplace, specifically in STEM fields, and exploring how virtual reality (VR) may impact feelings of empathy for others, among other topics. Students will gain experience with experimental and quasi-experimental research. Tasks will include assistance with literature reviews, preparing study materials, data collection in lab experiments, and data tabulation. Students who plan on going to graduate school and have a psychology GPA over 3.0 are welcome to apply for this CI team.

For more information, contact **Dr. Patrick Rosopa** at [prosopa@clemson.edu](mailto:prosopa@clemson.edu)

**Healthy Aging and Applied Research Programs**

The Study of Healthy Aging & Applied Research Programs (SHAARP.org) laboratory examines cognitive, sensory, lifestyle, and physical predictors of everyday functioning among older adults. We then examine how different interventions (such as brain training and exergaming) impact health (such as dementia and cognition) and everyday functioning (such as driving mobility, crashes, falls, and complex Instrumental Activities of Daily Living). Students will likely be involved in multiple projects. Possible activities include, but are not limited to, conducting literature reviews, participating in community outreach events, recruiting and screening participants, developing/beta-testing software or protocols, administering physical, cognitive, and other types of study assessments, entering data, and analyzing and presenting data. Students with a GPA of 3.0 or higher and have an interest in graduate school or working with older adults are welcome to apply for this project. We prefer students who can stay involved with the SHAARP Lab for at least two consecutive semesters, with a minimum of 2 to 3 credits each semester (6 to 9 hours/week).

For more information, contact **Dr. Lesley Ross** at [laross@clemson.edu](mailto:laross@clemson.edu) or **Dr. Christy Phillips** at [cbphill@clemson.edu](mailto:cbphill@clemson.edu)

**Child Development**  
The goal of this CI team is to better understand parent-child interactions, taking special consideration to how the dynamics of the child’s personality and temperament impact the quality of these interactions. We currently have three ongoing projects 1) how parent-child attachment develops during the first year of infancy into toddlerhood and child as well as parental and child factors that impact attachment; 2) how parents and non-parents perceive and respond to infant crying and toddler temper tantrums; and 3) how parents and non-parents handle multitasking and/or focusing on specific tasks (like driving), when hearing negative emotions from their children, such as infant crying or toddler/child temper tantrums, particularly with how it impacts parents’ own emotion regulation, attention, and physiological reactions?   Students interested in graduate school in psychology or any health-related field who have a GPA of 3.0 or are welcome to apply for this research project.  We strongly prefer students who can stay involved in the CI team for at least two consecutive semesters, with a minimum of 2 to 3 credits each semester (6 to 9 hours/week).   
  
For more information, contact **Dr. Sarah Sanborn** at [ssanbor@clemson.edu](mailto:ssanbor@clemson.edu); or **Dr. Jennifer Grandits** at [jbisson@clemson.edu](mailto:jbisson@clemson.edu)

**Cyber-Crime and Psych**

Cyber-crime has become a prevalent threat to modern society. Billions (if not trillions) are lost each year to various forms of cyber-crime. One form of cyber-crime that needs further exploration is phishing emails. Phishing emails are attacks that attempt to steal your personal information (e.g., social security numbers, bank account information) by disguising themselves as a reputable source (e.g., your bank, or IT department. In this CI team we will explore the various factors that lead to phishing susceptibility and how we can potentially improve email users’ resiliency to these types of attacks. To accomplish this, we will conduct literature reviews, develop research questions, run studies, analyze data and write up that data for conferences presentations and publications. Students with a GPA of 3.0 or higher, an interest in graduate school, and an interest in cybersecurity are preferred.

For more information contact **Dr. Dawn Sarno** at [dmsarno@clemson.edu](mailto:dmsarno@clemson.edu)

**Healthcare Superheroes**

Understanding how to effectively coordinate patient care has been a long-standing issue within the healthcare context. Moreover, soaring healthcare costs, staffing shortages, and legislative changes have contributed to surge of interest in the ways healthcare organizations manage their leaders and teams in order to better impact patient outcomes. As a research initiative of the DIGITAL lab, we are interested in better understanding the role of effective coordination and communication between leaders and team members on multiple levels of analysis: this includes, but is not limited to, rounding structure, leader health and burnout, team effectiveness, patient safety and experiences, and employee engagement and health.

The purpose of this CI team is to aid our research efforts in understanding how different healthcare teams must work together to provide effective care within Prisma Health - Upstate. Specifically, CI members on this team will be involved in field research including observations, interviews, and focus groups; training development and evaluation; data organization and analysis; and other qualitative and quantitative research efforts. If you are interested in healthcare management, employee engagement, leadership and team development, patient experience, applied statistics, or any combination of the above, this CI team is likely to be a great fit for you.

For more information, contact **Sydney Begerowski** at [sbegero@g.clemson.edu](mailto:sbegero@g.clemson.edu), **Annamaria Wolf** at [avw@g.clemson.edu](mailto:avw@g.clemson.edu), or **Dr. Marissa Shuffler** at [mshuffl@clemson.edu](mailto:mshuffl@clemson.edu)

**Creativity and Collaboration in Virtual Teams**

Have you ever wondered how the teams of people who work on shows like SNL, South Park, and The Daily Show with Trevor Noah are able to come up with such creative content in such a short amount of time? What stands in the way of creativity in teams like these and what can we do to help teams reach their creative potential? Come to think of it, what even is creativity? As a research initiative of the Developing and Improving Globally Integrated Teamwork and Leadership (DIGITAL) Lab, we are interested in exploring these topics by specifically looking at what goes on during team meetings that helps or hinders creative processes and outcomes.

Students selected for this Creative Inquiry research team can expect to gain experience with experimental research by engaging in literature reviews, running participants through experiments, coding participant behaviors, and helping to tell meaningful stories with analyzed data.

For more information, contact **Kyle Christenson** at [kmc9@g.clemson.edu](mailto:kmc9@g.clemson.edu) or **Dr. Marissa Shuffler** at [mshuffl@clemson.edu](mailto:mshuffl@clemson.edu)

**Teamwork and Technology: Designing the Future of Work**

The future work environment is one where advanced technology is no longer just a tool, but a teammate. As an interdisciplinary research initiative of the DIGITAL lab and in collaboration with Automotive Engineering, we are interested in better understanding how artificial intelligence and robotics can function as team members in complex, dynamic environments. This includes, but is not limited to, research topics such as human-robot interaction, team and multiteam system design, and collaboration.

The purpose of this CI team is to examine models of interaction between advanced technology and human counterparts specifically in the context of manufacturing and construction. If you are interested in collaboration and teaming, robotics, artificial intelligence, systems design, human engineering, or any combination of the above, this CI team is likely to be a great fit for you. CI members on this team will be involved in research including literature reviews, theory development, interviews, focus groups, and observations, and other qualitative and quantitative research efforts.

For more information, contact **Sydney Begerowski** at [sbegero@g.clemson.edu](mailto:sbegero@g.clemson.edu) or **Dr. Marissa Shuffler** at [mshuffl@clemson.edu](mailto:mshuffl@clemson.edu)

**Mission Impossible? Teamwork and Team Composition in High Risk, High Stress Environments**

How do we turn teams of experts into expert teams, especially when they are teams working in stressful and demanding military environments? We are currently investigating this question in the DIGITAL (Deriving Innovative & riGorous science for Teaming And Leading) Research Lab, as teams today face new challenges which may require different interventions and strategies than what seems to work in traditional teams. This CI team will involve conducting lab and field research with military teams to answer this question and expand our current knowledge of teamwork and leadership in culturally diverse, physically distributed, dynamic, and adaptive work environments.

Specifically, CI members on this team will be involved in lab and field research, including data collection and observations; training development and evaluation; data organization and analysis; and other qualitative and quantitative research efforts. If you are interested in learning more about high stress work environments, leadership and team development, team composition, applied statistics, or any combination of the above, this CI team is likely to be a great fit for you.

For more information, contact **Dr. Marissa Shuffler** at [mshuffl@clemson.edu](mailto:mshuffl@clemson.edu); **Marlee Johnson** at [marleej@g.clemson.edu](mailto:marleej@g.clemson.edu)

**Gig Work and Occupational Health Psychology**

The goal of this CI team is to conduct research addressing issues in the field of occupational health psychology (OHP). Our lab will focus on OHP areas such as nonstandard work arrangements (e.g., gig work), economic stress (e.g., job insecurity, underemployment), and substance use (primarily opioid use). This CI team will be working on at least two projects studying gig workers to follow up and extend our lab’s previously published paper (Watson, Kistler, Graham, & Sinclair, 2021). One project will focus on capturing gig workers’ job demands (e.g., underemployment, emotional labor) and job resources (e.g., autonomy, support). As suggested by Watson et al. (2021), we expect that gig workers are not a homogenous group as they have diverse work experiences reflected in their job demands and job resources. Our CI team will empirically test these propositions using survey data representing the different gig worker profiles and consider other job demands and resources not included in our original propositions. The second project will extend our previous research by collecting mixed methods data to examine mechanisms gig workers engage in to improve their work experiences (e.g., job crafting) and outcomes of gig work. We will also explore OHP outcomes such as worker health and well-being, stress, burnout, engagement, and substance use. Our team will give particular attention to opioid use given the heavily documented opioid crisis and its expected overlap with economic stress and gig work. The mixed methods data collection will promote a deeper understanding of gig work including potential moderating factors of these outcomes (e.g., volition, economic dependency) so that we can better inform the how, when, and why of gig workers’ experiences.

For more information, contact **Paige Watson** at [gwendow@clemson.edu](mailto:gwendow@clemson.edu)or **Bob Sinclair** at [rsincla@clemson.edu](mailto:rsincla@clemson.edu)

**Human Factors Issues in Advanced Vehicle Technologies**

The purpose of this CI team is to investigate several human factors issues surrounding the increasing integration of automation into the driving task. Topics may include but are not limited to the acceptance and use of advanced vehicle technologies (AVT) including advanced driver assistance systems (ADAS; e.g., adaptive cruise control, lane centering, forward collision warning, etc.) and automated driving systems (ADS); behavioral adaptations that stem from the use of AVT; as well as driver vigilance in monitoring vehicle automation and transitions of vehicle control between automation and the driver. Students will gain experience designing and implementing experiments using a state-of-the-art driving simulator and other complementary research equipment. Tasks will include assistance with literature reviews, preparing study materials, data collection in lab experiments, and data tabulation and processing. This CI welcomes not only Psychology majors, but also students from transportation and technology-oriented disciplines (e.g., Industrial/Civil/Mechanical Engineering, Computer Science, Human Centered Computing, etc.) that are interested in human factors research of the changing role of the driver with the rise of vehicle automation.

For more information, contact **Dr. Dustin J Souders** at [djsoude@clemson.edu](mailto:djsoude@clemson.edu)

**Eye Tracking and Wayfinding**

The computational power and specialized hardware required for eye tracking technology is becoming increasingly mobile, and hence shows promise in helping provide support in wayfinding situations. Similarly, Fiducial markers, QR-like codes to be read by computer vision like that used in eye tracking, are also becoming more widespread, and can be paired with eye tracking to provide situated environmental support for those technologically equipped to read them. These emerging technologies have untapped application potential to assist those living with some sort of disability or otherwise reduced ability. This assistance is especially needed for those such individuals who find themselves navigating unfamiliar places. This Creative Inquiry project is designed to support students' ability to participate actively in reviewing the literature and forming hypotheses, exploring the areas of Human Factors (the user) and Computer Science (the technology) to solve application issues that arise when using mobile eye tracking to provide environmental support to those individuals that need it when navigating and wayfinding indoors.

For more information, contact **Dr. Dustin J Souders** at [djsoude@clemson.edu](mailto:djsoude@clemson.edu)

**The Development of Critical Thinking in Undergraduates**

Evaluation of the methods to enhance, and the values of, critical thinking in education. Both laboratory and classroom methods are employed to identify effective techniques for improving undergraduate critical thinking skills.

For more information, contact **Dr. Benjamin R Stephens** at [bstephe@clemson.edu](mailto:bstephe@clemson.edu)

**Human Factors Forensics**

This team will explore the application of scientific knowledge and methods in Human Factors to the legal arena. Issues include the development of expert opinion, the scientific justification and defense of expert testimony, the techniques for effective education of jurors and the court by experts, etc. Students will explore these issues from practical, empirical, and theoretical perspectives. Focus will include topics in vision, attention, cognition, and related areas.

For more information, contact **Dr. Benjamin R Stephens** at [bstephe@clemson.edu](mailto:bstephe@clemson.edu)

**Safety Research**

How do we evaluate and enhance human hazard detection to promote safety?

For more information, contact **Dr. Benjamin R Stephens** at [bstephe@clemson.edu](mailto:bstephe@clemson.edu)

**Improving Inclusion with Diversity Training**

Over the past two years, the demand for diversity training in organizations has skyrocketed. However, many of these efforts fall short at improving workplace inclusion climate. This CI team will use experimental and field-based research to explore new approaches to diversity training to better understand what makes diversity training work. Students will have the opportunity to gain experience designing and implementing research studies, developing surveys using Qualtrics, and analyzing qualitative and quantitative data.

For more information, contact **Dr. Allison Traylor** at [amtrayl@clemson.edu](mailto:amtrayl@clemson.edu)

**Night Vision and the Visibility of Road Users at Night**

Far too many bicyclists, pedestrians, drivers, and passengers are injured and killed at night. Often these collisions result from drivers being unable to see unexpected hazards (e.g., pedestrian) from a safe distance. We are studying methods to make all road users safer by making it easier for drivers to see unexpected hazards and people on the road at night. These studies sometimes involve collecting data outdoors, sometimes in daylight and sometimes at night, and sometimes in our lab.

For more information, contact **Dr. Rick Tyrrell** at [tyrrell@clemson.edu](mailto:tyrrell@clemson.edu), **Savana King** at [sking8@g.clemson.edu](mailto:sking8@g.clemson.edu), or **Morgan McCree** at [mmccree@g.clemson.edu](mailto:mmccree@g.clemson.edu)

**Game Design and Usability**

The use of gamification relies on psychological principles such as motivation, reward, or personalization to design game elements like avatars, points, or leaderboards to increase one’s performance on a task. This research team investigates gamification as a tool to assist in task performance in multiple areas of application. Gamified tasks have already been used in topics such as training, health, and other areas where the goal is to increase human performance on a given task. This team also investigates usability heuristics in game design to better develop and inform on the gamification of tasks.

For more information, contact **Dr. William G. Volante** at wvolant@clemson.edu

**Addictive Behaviors, Unhealthy Behaviors, and Health Disparities**

This Creative Inquiry (CI) team is committed to investigating addictive behaviors and other unhealthy behaviors, with the aims of (1) increasing our knowledge about the underlying mechanism associated with these behavioral patterns; and (2) identifying effective approaches to attenuate these maladaptive behaviors.

Students may be involved in several stages of the research process, including conducting literature searches; reading and critically evaluating scientific literature; assisting in collecting research data; entering data, and writing scientific output for conference presentations and publications. Students are expected to work on the team for a minimum of 2 semesters.

For more information, Contact **Dr. Pericot-Valverde** at [iperico@clemson.edu](mailto:iperico@clemson.edu)

**Campus Suicide Prevention**

This team involves students in Clemson's campus suicide prevention initiative, Tigers Together to Stop Suicide. Team leaders are affiliated with Healthy Campus and the Psychology Department. Students will conduct research and advocacy activities related to suicide prevention, including reviews of evidence-based prevention strategies, implementation of social marketing campaigns, hosting activities for National Suicide Prevention Awareness Month, and leading the Clemson Out of the Darkness Walk. Students will partner with organizations both on and off campus, including student organizations, non-profits, and university administrative units, to implement comprehensive strategies to address risk and protective factors for mental health concerns among Clemson students. Students will engage in program evaluation and related research activities to identify evidence-based strategies for implementation, evaluate the efficacy of Clemson's programmatic activities, and present findings that inform policy and practice in both the Clemson and broader academic communities.

For more information, contact **Delana Reynolds** at [delanar@clemson.edu](mailto:delanar@clemson.edu)