Dr. Andrea Roberts

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College of Architecture

Department of Landscape Architecture
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Aggie Inclusion: A Cultural Landscape Study of Current and Former Student Representation and Experiences on Texas A&M University's Main Campus

TAMU's University Diversity Plan describes campus climate as the relationship between a combination factors including the institution's historical legacies, psychological climate, behavioral climate, and structural diversity. Concerned with "non-majority" students' campus experience, the TAMU Division of Student Affairs released a 2017 report on campus climate. In that report, the Division devised strategies for making non-majority students feel genuinely included on campus. Among those items were: 1) Dedicated curriculum and safe space for experiential learning; 2) being prepared to address the underrepresented students' ongoing perceptions of campus history, core values, and traditions of the university; and 3) making sure students from underrepresented groups feel as valued as everyone else. One approach to addressing these goals is to ensure the campus landscape's public art, commemorative spaces, signage, and building names reflect diverse students' contributions to Aggie heritage. While the Campus Master Plan mentions the lack of signage, walking routes, objects, or buildings named after alumni of color, a strategy for completing this objective has yet to be articulated. How can and should these changes to the landscape be made? Whose history, memories, and experiences should inform changes to Texas A&M's campus landscape? This project creates evidence-based curriculum designed to answer these questions. This funding request will support the design of a course in which students will interview and develop visualizations of the University's diverse heritage in cooperation with its diverse alumni. The data collected will enable students to craft a final report of recommendations for ways to make tangible the diverse alumni's contributions in the campus landscape. The data will also support qualitative and quantitative studies on the relationship between campus climate and the representation of alumni in the cultural landscapes for peer reviewed journals.

Dr. Chanda D. Elbert

Associate Professor

College of Agriculture

Department of Agricultural Leadership,
Education, and Communication

Taking the World by Storm after College: The Evaluation of the Impact of Career Readiness of African American Undergraduate Students at Texas A&M University who participated in Programs which Focused on Identity, Leadership, and Self-Concept

Currently the challenged has emerged for postsecondary education to concentrate on not only time to graduation, but preparing college graduates for successful transition into the workplace (NACE, 2015). Researchers have indicated the long-term impact on increased economic opportninuties, benefits, and career mobility based on college graduation (Oreopoulos & Salvanes, 2011). Studies by Astin and Kuh (1993), indicated that student engagement played an important role in college student learning, academic performance, and persistence to graduation (Astin, 1993; Hu & Kuh, 2003; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Pascarella & Terenzini, 1991, 2005). However, few studies researched the connection between key college success factors for underrepresented student populations and how the impact career readiness. As institutions of higher education, it is important to understand what constructs impact the cognitive and non-cognitive skills of all students pertaining to career readiness considering the links between career readiness and successful transition into the work force, (NACE, 2015). This research project intends to provide insight on the career readiness of African American leadership development, transition, and development of positive self-concept. The programs, which will be evaluated tout over ten years of active student participation, with a curriculum that encouraged exploration of gender, racial, and leader identity. This research project will employ focus groups and interviews of program past participants which are currently employed in the workplace or enrolled in graduate and professional school programs.

Dr. Janie M. Moore

Assistant Professor

College of Agriculture

Department of Biological &
Agricultural Engineering

Assessing Campus Climate: Student' perceptions of inclusion beyond the first year

Undergraduate programs attempting to increase retention of underrepresented minorities (URM) often focus on the students' experiences within the first year. Often, at large institutions, students have access to additional services and programs to help them succeed beyond their first year but are unaware of these resources and have no one to assist in making the connection. This is an issue for some URM students, especially if they are the only one from their small niche in a particular major or class within the Colleges of Agriculture and Life Sciences (COALS) or Engineering (COE). Black and Hispanic students make up 2.85% and 21.49% of the combined COALS and COE student population, respectively (TAMU Accountability, 2017). This, along with other factors that URM students have to process, can lead to feelings of isolation and eventually departure decisions. In order to avoid these feelings, colleges must develop ways to connect students with the resources they need as well as help them to become comfortable utilizing cocurricular spaces. In this work, we pose the question, what factors promote or deter upper-level URM students from engaging in support programs and other student success opportunities in COALS and COE? The primary goal of this work is to evaluate the feelings of upper-level students concerning inclusion and the utilization of CS & SSP across campus. This research problem will be addressed through a mixed methods approach including knowledge mapping, surveys and focus groups, by exploring the following identifiers: 1) marginalization and 2) isolation. Overall, we hope that students will be able to identify gaps in inclusivity across the colleges and bridge them through knowledge gained during focus group programming.

Dr. Carol Bunch Davis

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Texas A&M - Galveston

Department of Liberal Arts Studies

Civic Literacy, Civil Dialogues and the TAMUG Common Reader

"Civic Literacy, Civil Dialogues, and the TAMUG Common Reader" offers students at TAMUG sustained curricular engagement with critical multiculturalism and encourages civil discussion of these issues in its common reader pilot program. The proposed project will use student evaluation responses and course artifacts in addition to faculty facilitator evaluation responses to assess the project. The Co-PI's will use the results in both a conference presentation at the second TAMUG Conference on Inclusion and Diversity in Higher Education to be heal in September 2018, as well as an edited manuscript in which they will include a chapter on the project.

Dr. Daniel W. Goldberg

Assistant Professor

College of Geosciences

Department of Geography and Computer Science and Engineering

TAMU ADA Routing Services

Any efforts for truly diversifying the Texas A&M University (TAMU) campus must include a consideration of members of the Aggie community who have one or more of the many forms of mobility impairments. From Aggies in wheelchairs, to those who have vision and hearing impairments, one's ability to navigate the TAMU campus safely, efficiently, and with a feeling of respect is both a fundamental individual right, and central to the university's diversity plan. The TAMU ADA Routing Services project will integrate existing data sets about the transportation infrastructure of and around the TAMU campus, crowdsourced accessibility data collected during TAMU GIS Day 2016, accessibility data collected and verified by the TAMU Department of Geography, and the core missions of the TAMU Offices of Facilities Coordination and TAMU Transportation Services to provide a web-map-enabled routing service on top of the AggieMap which provides those with special mobility needs the ability to calculate a safe and efficient route from their home to anywhere on campus using multiple modes of transportation – driving, bus riding, bike riding, and sidewalks. This project will provide a means by which individuals can plan their daily travel on the TAMU campus to undertake their business in a safe, reliable, and technology-enabled manner that affords them a respectful approach to navigating the gigantic TAMU campus. This project will leverage relationships developed over two years of prior project work from a core group of academics and administrative stakeholders with a shared vision for a truly accessible TAMU campus. This project will include an on-going crowdsourcing strategy for keeping the data and services up to date with the ever-changing TAMU landscape that will allow the system to adapt and remain effective in improving the accessibility of the TAMU campus.

Dr. Mary Meagher

Professor

College of Liberal Arts

Department of Psychological and Brain
Sciences

Enhancing Resilience and Retention: A Scalable Flipped Classroom Model for Underrepresented undergraduates

Underrepresented undergraduate students are more likely to experience social isolation, adversity, discrimination, financial problems, and limited informational support regarding academic and career paths. These challenges often lead to negative consequences such as stress, loneliness, anxiety, depression, academic and social problems, and higher drop out rates. Mindfulness-based stress-reduction (MBSR) has been shown to be effective in reducing stress, increasing positive emotion, self-regulation, and well-being, while also improving academic performance in college students, including ethnic and racial minority students. Mindfulness is a trainable skill of intentionally attending to the present moment without experiential avoidance, habitual reactivity, or conceptual exaggeration. Although mindfulness interventions improve outcomes in college students, research has not evaluated whether interventions delivered in a scalable flipped classroom model are beneficial for underrepresented college students. To fill this gap, we propose to examine whether a mindfulness program, combined with other skills training modules, leads to positive outcomes among underrepresented students. This proof of principle project will be conducted in the Department of Psychological and Brain Sciences as a flipped 1 credit hour course. Student skill development and assessment will be conducted through online modules, while class time will be devoted to discussion, active learning experiences, group activities, and guest speakers. The project builds on an existing set of online skills training modules that reduce distress and physiological arousal, increase positive emotion, and enhance well-being in undergraduates. During summer 2018, new modules will be added to enhance resilience, social support, academic achievement, and retention of underrepresented students. These modules will be informed by the expertise of our research team. A multiple---baseline design will be used to evaluate the effectiveness of each module to determine whether they lead to incremental improvements in resilience and coping. The results will be disseminated and will provide preliminary data for an NSF grant proposal.

Dr. Kathi N. Miner

Associate Professor

College of Liberal Arts

Department of Psychological and Brain Sciences

Kicking the Girls: Displaced Faculty Incivility toward College Women in STEM

Although the number of college women majoring in science, technology, engineering and mathematics (STEM) has increased in recent decades, the number remains low for some disciplines. For example, the National Science Foundation reported that only 19% of engineering and 18% of computer science degrees go to women. Moreover, roughly 25% of college women who major in STEM when they enter college change to a non-STEM major after the first term. The "leaky pipeline" metaphor describes this trend and refers to the trajectory of career progression for individuals at the college level and beyond and the leaks refer to those who leave the pipeline. Although leakage is not specific to women, women leak from the STEM pipeline at a disproportionately higher rate compared to men. I propose that negative interpersonal interactions in the form of incivility may be an important factor contributing to the leakage of college women from the STEM pipeline. Incivility is conceptualized in the organizational psychology literature as inconsiderate words and actions that violate norms of interpersonal respect and dignity. In the proposed project, I investigate how student experiences of incivility affect their well-being and intentions to leave their STEM major. I also examine STEM faculty experiences of incivility as a key antecedent to STEM students' experiences of incivility in the same academic department. Finally, I examine these relationships separately for female and male STEM students to assess the extent to which experiences of "displaced" faculty incivility, and its consequences, may be unique for college women in STEM.

Dr. Nora Montalvo-Liendo

Assistant Professor

College of Nursing

ONE in Diversity: Obtaining Nursing Excellence in Diversity

Problem: The foundation to improve diversity in the nursing workforce begins with cultural competence. Texas A&M University College of Nursing has no benchmark data to confirm cultural competency among students enrolled in educational programs. Cultural competence begins with cultural awareness.

Purpose: The purpose of this proposal is to administer a self-assessment survey to faculty and students at the Texas A&M College of Nursing utilizing the validated Cultural Awareness Scale (CAS). The CAS evaluates cultural competency based on four dimensions of cultural awareness and sensitivity: affective, attitudinal, cognitive knowledge and behavioral with a Cronbach's alpha at 0.82-0.90 across all levels of nursing education: Baccalaureate, Masters and Doctoral. The following research questions will be answered by this study: What are the differences in cultural awareness among nursing students who have completed a cultural awareness course and students who have not?

Methods: Approval from the Institutional Review Board will be sought. Subjects will be recruited from designated courses for each level of the curriculum. A demographic form will solicit data regarding gender, age, racial or ethnic minority status, grade level, education, grade point average, whether the student has live or studied abroad, worked with a minority or medically underserved population for >40 hours, or completed global health or cultural diversity coursework. The CAS survey will be converted to an online Qualtrics platform for ease of administration and data export. A student research assistant will be hire for subject recruitment, obtaining informed consent, and data management.

Applied Outcomes: This baseline data on cultural awareness among nursing students at Texas A&M University will inform interventions to improve cultural competency of our graduates to ultimately eliminate health disparity and improve health outcomes.

Jonathan D. Perry

Graduate Assistant

Department of Physics and Astronomy

Evaluating the Gender Gap in Introductory Physics

This work seeks to quantify a potential gender gap for student performance in calculus-based introductory physics courses at TAMU, and how a new resource may contribute to narrowing a gap. Within physics education research (PER) literature, it is known that there exists a small but significant gap between the genders in final performance within introductory courses. Such a gap has been studied other institutions, but never at Texas A&M University (TAMU).

We propose to expand on standard analysis, which uses final course grades and conceptual assessments, to include mid-term exam grades. Using mid-term exams will permit the researchers to determine whether this gender gap exists at all points of a course, or if it appears gradually with certain kinds of concepts and course material. This assessment will be conducted over a decade of data, 2007-2016, using a combination of university and departmental records. Potential bias in course grades will also be examined based on instructor gender.

Further work will examine whether the gender gap changed for terms where a new supplemental resource was made available to students. This resource was created by a team of researchers within the department of Physics & Astronomy at TAMU, funded by the Provost's office and Instructional Technology Services (ITS). The resource, named Freshman Physics Classroom (FPC), is a set of self-learning materials designed to supplement the rest of the course at a level appropriate for our calculus-based introductory physics courses. Initial results from a deployment of this resource to the calculus-based introductory physics course in Electricity & Magnetism have been submitted to the American Journal of Physics [1].