Lynne Zummo
Educational Psychology/UITE
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SUMMARY OF PROJECT:

This project will design and implement an innovative instructional activity that engages pre-service science teachers (PSTs) in learning to identify and evaluate scientific (mis)information on the internet. It targets PSTs enrolled in EDU 5170 (Secondary Science Teaching Methods) and EDPS 5564 (Advanced Secondary Science Teaching Methods). In addition to helping PSTs learn to parse scientific (mis)information, it will support them in designing effective, innovative tools for K-12 students to navigate (mis)information. This project relies on a collaboration with Daniel Pimentel, an expert in science learning and misinformation from Stanford. Pimentel has run several similar experiences for in-service teachers; this project provides context to adapt these experiences to meet the needs of PSTs at University of Utah. Additionally, this project will provide a context for research that clarifies learning processes related to navigating (mis)information, and for long-term changes in EDU 5170 and EDPS 5564 around incorporating contemporary issues in science learning.

Angela Rasmussen
Electrical & Computer Engineering
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SUMMARY OF PROJECT:

We are applying for this teaching grant to purchase portable laboratory testing equipment and components for use by undergraduate students in an introductory electrical engineering course (ECE 1900). Typical laboratory testing equipment costs around $10,000 per seat. With advances in technology, portable laboratory testing equipment that is sufficient for student use has developed in recent years. This portable and programmable equipment would allow for engineering problem solving by engaging students in hands-on experimentation in a classroom setting. This equipment would also be available for other department courses along with informal K-12 outreach activities.

Connor Bischak
Chemistry
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SUMMARY OF PROJECT:

The goal of this Individual Teaching Grant is to enhance the experience of students in the Advanced Physical Chemistry Laboratory course (CHEM 5720) by implementing an inquiry based class that is much closer to real research experience. Physical chemistry research often involves building instrumentation, running simulations, and analyzing large amounts of data.

This grant will be used to put together kits that will enable students to build their own spectrometers using Arduino microcontrollers, basic optics, and 3D-printed parts fabricated at the Marriott Library. Students will compare the performance of their home-built spectrometers to state-of-the-art spectrometers located in the physical chemistry teaching lab. Students will also synthesize a unique conjugated polymer through electropolymerization and characterize this polymer using various physical chemistry techniques, including fluorescence spectroscopy, UV-vis absorption spectroscopy, and infrared spectroscopy. New state-of-the-art physical chemistry equipment will also be included in the course, including grazing incidence wide angle X-ray scattering performed at the Utah Nanofab and atomic force microscopy, an instrument recently purchased for the physical chemistry laboratory course.

Romeo Garcia
Writing & Rhetoric Studies
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SUMMARY OF PROJECT:

The Committee for Equity, Diversity and Inclusion and the Department of Writing & Rhetoric Studies has taken concrete steps towards fostering an environment that aligns with the core values of the humanities and is attentive to the University's "Call to Action." For the past several years, the goal of this committee has been developing and implementing a set of actions plans: (1) conduct surveys gauging student perception of the departmental and university climate, (2) organize workshop on E.D.I., and (3) host a symposium on E.D.I. We are now materializing our discussions into more concrete actions. As an initial step, the committee is developing a signature 1-credit co-taught course emphasizing social justice, antiracism, decolonial agendas, and E.D.I. initiatives. While the course will be piloted as a 1 credit course for Writing and Rhetoric majors, it will evolve into a 3-credit course. This grant will be used to consult experts in creating content for the course, invite scholars for speaking engagements, fund museum visits, provide a platform for students to showcase their end of the year assignments, and create exhibitions led by local artists that respond to student projects. This course will deepen student's knowledge of the relationship between power, epistemic racism, and their everyday discursive practices and cultivate new generations of critical participants in E.D.I. collectives.

Allison Segal
Writing & Rhetoric Studies
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SUMMARY OF PROJECT:

This grant will fund the development of a new Writing and Rhetoric Studies Elective Course, Digital Game Rhetoric. Adding a new Digital Rhetoric course focused on gaming will expand and enhance the U of U curriculum. When the course is developed, the equipment purchased by the grant will then be installed in the Writing and Rhetoric Minor Lounge (room 706). At

the University of Utah Asia Campus, there are currently no consoles available for students. Access to a console and gaming laptop will allow students to explore game rhetoric and conduct research. The University of Utah Asia campus offered to provide a flat-screen TV, HDMI cables, spare batteries, and the Lounge space. Additionally, the equipment will be utilized in the course after it is developed and approved (Anticipated Spring 2024). Thank you for your consideration.

Cari Johnson
Geology & Geophysics
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SUMMARY OF PROJECT:

Rivers are a critical component of the hydrologic cycle and have dramatic impacts on freshwater resources and the structure of our society. However, many river processes occur on extremely large spatial and time scales that cannot be directly observed by students. Thus, communicating river processes to students remains a challenge. Physical models of rivers have emerged as a solution to these issues in river science education by providing a system for student observation of river processes in condensed time and space. At least four faculty members in the Department of Geology & Geophysics are enthusiastic to include the river model in their course curriculum. We anticipate that the river model will serve students, faculty, and our broader community for at least the next 20 years – and likely much longer. The river model will transform the way our students experience river science and deepen their understanding of how rivers shape our world.

Preston Tanner
Parks, Recreation, & Tourism
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SUMMARY OF PROJECT:

Sport management programs in higher education are growing and innovating to meet the needs of students and the industry. Sport analytics is one such innovative topic that is being integrated into curriculum. As data capture becomes easier and more prevalent in the sports industry, organizations from youth sports to professional seek to take advantage of opportunities to improve athlete performance and health. Sport managers need to understand technological advances in the industry, sport analytics, and the tools that are used to analyze and visualize data. Our department has recently developed an applied sport analytics course to address this need. This grant will be used to purchase GPS tracking pods and vests that capture live data to monitor athletes for performance and injury prevention. This represents a significant innovation to the course, a meaningful learning opportunity for students, and will create a community partnership with youth coaches and sport organizations.

Christopher Alloways-Ramsey
School of Dance
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SUMMARY OF PROJECT:

A Balanchine Experience will be facilitated by an artist residency with Michele Gifford in the School of Dance. The residency will include ballet master classes in the Balanchine style and the re-staging of George Balanchine's iconic Serenade on School of Dance students, alongside a pedagogical forum for faculty. All School of Dance faculty and students (graduate and undergraduate) will have the opportunity to participate and observe classes and rehearsals. The residency will culminate with a performance of Serenade during the Utah Ballet concert in February 2024, including a one-night pre-show lecture by Dr. Joselli Deans, contextualizing Balanchine's work in the landscape of the US dance scene, particularly in terms of social justice constructs such as the #MeToo movement and Africanist influences on Balanchine's aesthetic. In the Fall semester prior to the residency, existing curriculum will include modules that focus on Balanchine's repertoire, cultural significance, and legacy in ballet history.

Adrienne Carey
Internal Medicine
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SUMMARY OF PROJECT:

The Spencer Fox Eccles School of Medicine (SFESOM) is redesigning the undergraduate medical education curriculum, and the planned launch is academic year 2023-2024. One of the goals of the new curriculum is to use active learning modalities to develop critical thinking skills. Problem-based learning (PBL) will be at the center of this transition. In PBL, students explore a clinical case by asking questions, formulating learning issues, engaging in self-directed learning and presenting information to their peers. Students produce concept maps of each case to make connections between the basic and clinical sciences. Case development is a time intensive process and many medical schools with experience in PBL market their cases to other schools looking to start their own PBL curriculum. As a newly-appointed director of the PBL curriculum, I would like to use the money from this teaching grant to help support the purchase of PBL cases for the SFESOM.

Lauren Gimbel
Obstetrics & Gynecology
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SUMMARY OF PROJECT:

Perinatal mood and anxiety disorders occur in 10-20% of perinatal patients, making it the most common co-morbid condition in pregnancy.1,2 Yet obstetrics and gynecology physicians receive little training in mental health care during residency to be able to take care of these patients.3,4 There is a need to enhance education in mental health care in Obstetrics and Gynecology residency programs to take better care of pregnant and postpartum patients. Simulation is a common and desired approach to enhance training in Ob-Gyn residency.5,6 Through collaboration with the LIFT Simulation Design Lab we would like to develop simulation models to enhance education, knowledge and competency among Ob-Gyn residents in providing perinatal mental health care. These models can be used for current and future Ob-Gyn residents as well as having the potential to be used across departments, such as incorporating the psychiatry residency program, in future interdisciplinary work.

Sarah Ivy
Special Education
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SUMMARY OF PROJECT:

The proposed project activities will improve the learning experience of distance students enrolled in deafblind coursework. Specifically, funds will be used to pay a doctoral student (specialized in teaching deaf/hard of hearing and deafblind students) to assist in development for two deafblind courses, which have recently begun to be offered to out-of-state distance students. Tasks include designing activities to simulate the experiences of deafblind learners (this is difficult within the context of a distance course); evaluating the extent to which course content will prepare future educators to meet the unique needs of the deafblind population (in terms of diversity and complexity); and working with the instructor to add or change content to address identified gaps/weaknesses. In this proposal, I describe how assistance with course development is justified by the diverse, low-incidence nature of deafblindness and the opportunity for the Deafblind Program to meet a national need.

Jeannette Koski
Occupational & Recreational Therapy
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SUMMARY OF PROJECT:

This project will develop a series of videos depicting occupational therapist interactions with patients. The videos will be used to provide students with simulated examples of communication

skill “do’s and don’ts” of motivating a patient. Examples will reflect the unique challenges of working with clients with different levels of motivation. The videos will include short vignettes representing interactions with patients who display different responses during treatment. Students will be asked to complete a brief written assignment for each vignette, aimed at identifying relevant information, what would be done next, and/or what could be done differently. Responses will be reviewed in class through group discussions.

Amy Loverin
Nutrition & Integrative Physiology
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SUMMARY OF PROJECT:

This application proposes a community- engaged learning project that partners students and members of local Latino communities together to co-create a culturally-specific Culinary Medicine curriculum. This project will provide deeply engaging learning experiences for students by utilizing the expertise of underserved community members to inform more dynamic and representative health-related curriculum. Students will conduct focus groups to determine preferred instructional modalities, lengths of intervention, topics of interest, and barriers to attending interventions. Then, students will co-design, -pilot, and -evaluate the curriculum with a local Latina chef with whom we currently collaborate. This innovative student-led project would diversify Culinary Medicine curriculum, employ active community-based learning approaches, and bridge gaps in health-related interventions through engaging local communities in reciprocal and mutually beneficial knowledge generation.

Kota Takahashi
Health & Kinesiology
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SUMMARY OF PROJECT:

The goal of this project is to enhance student learning in the Department of Health & Kinesiology by implementing software-based computational training in existing and new Biomechanics classes. Biomechanics applies mechanics-based principles to study the structure, function, and motion of biological systems. Competency in Biomechanics equips students with translatable skills for numerous health-related careers. We will offer students hands-on training in commercial software (Visual3D, C-Motion Inc.,) to supplement their theoretical understanding of mechanics-based concepts (e.g., Newton’s Laws). Through project-based experiential learning, we will offer hands-on training with content that is applicable to various health-related fields (e.g., physical therapy, sports medicine, orthopedics, physical education) – all of which will help our students be competitive in job placement following graduation.

Elpitha Tsoutsounakis
Multi-disciplinary Design
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SUMMARY OF PROJECT:

Field Studio is an established research and design collective of faculty and students working with community partners to affect stewardship, management, and experience in public lands and rural communities. It operates as a 6-credit undergraduate course (DES 3520 Design Product Studio) in the Division of Multi-disciplinary Design. In Fall 2023, the Field Studio will partner with Epicenter and the Wesley Powell Museum in Green River, Utah. Students will work on design research and proposals for an exhibit at the museum to coincide with the Smithsonian Crossroads exhibit in June 2024. This grant will support an enhanced fieldwork phase to commence the project, where fifteen students will build a float for the Melon Days Parade in Green River that will then be deployed in the Melon Days festival as an on-site research station for engaging community members.

Tonie van Dam
Geology & Geophysics
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SUMMARY OF PROJECT:

We request funding to develop a set of class notes and exercises for the course Geophysics GEO3010, taught in the Department of Geology and Geophysics, that the students of this class can use in replacement of purchasing a textbook. GEO3010 has a QI general education designation and is a required course for Geophysics (emphasis of Geology), Geological Engineering, and Earth Science Composite Teaching degrees offered in the College of Mines and Earth Sciences. The course introduces learners to geophysical techniques used to study the shallow Earth from local to global scales. The course includes two lectures and one lab each week. Currently, there is not a suitable textbook for this sophomore/junior level course.
A set of notes originally written by M. Thorne is currently provided to the students. The geophysics team that teaches the course have added to the existing notes based on their research specialties. The goal of this project would be to produce a clearly and consistently formatted document, with drafted figures, that could be combined into a single paper back document that all students could purchase from the bookstore for the cost of printing or could access electronically for free.