Action Requested: Recommend approval of the professional development assignment requests submitted by the Regent universities for FY 2022.

Executive Summary: The Board of Regents must annually approve faculty professional development assignments as specified in Iowa Code §262.9(14) and Board Policy §2.2.R. For FY 2022, the University of Iowa and Iowa State University request approval of 72 faculty professional development assignments. Due to budgetary constraints, the University of Northern Iowa is requesting no faculty professional development assignments for FY 2022.

A brief description of the work planned for each proposed assignment is available below. This report addresses the Board of Regents Strategic Plan priorities for “promoting and supporting innovation in teaching, research, and economic development and promoting effective use of resources to meet institutional missions.” The Board office recommends approval of the professional development assignment requests for FY 2022.

### NUMBER OF PDA RECIPIENTS AND PERCENT OF TOTAL FACULTY

<table>
<thead>
<tr>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUI</td>
<td>65 (2.8%)</td>
<td>56 (2.4%)</td>
<td>71 (3.0%)</td>
<td>72 (2.2%)</td>
</tr>
<tr>
<td>ISU</td>
<td>42 (2.1%)</td>
<td>43 (2.2%)</td>
<td>50 (2.7%)</td>
<td>48 (2.6%)</td>
</tr>
<tr>
<td>UNI</td>
<td>15 (1.9%)</td>
<td>12 (1.7%)</td>
<td>14 (1.8%)</td>
<td>14 (1.9%)</td>
</tr>
<tr>
<td>REGENT TOTAL</td>
<td>122 (2.4%)</td>
<td>111 (2.2%)</td>
<td>135 (2.7%)</td>
<td>134 (2.3%)</td>
</tr>
</tbody>
</table>

Background: Institutional policies. Each university has academic policies that describe the process and requirements for professional development assignments (PDA) and which guide the selection of faculty.

- University of Iowa. Full-time faculty members (i.e., tenure or clinical-track) with academic year appointments who have completed a minimum of 10 semesters of full-time academic service are eligible for an initial one-semester PDA. Full-time tenure-track and clinical-track faculty members with fiscal-year appointments are eligible for their first PDA of 4.5 months (i.e., one semester) in length after they have completed a minimum of four years of full-time academic service or the equivalent (i.e., prorated for part-time faculty). Alternatively, fiscal-year faculty members who have completed 8 or 11 years of full-time academic service or the equivalent (i.e., prorated for part-time faculty) are eligible for a PDA of 9 months (i.e., two semesters), or a full 12 months, respectively. To become eligible for a subsequent award following a PDA, faculty members with academic-year appointments must complete 10 semesters of full-time service; faculty members with fiscal-year appointments must complete four years of full-time service.

- Iowa State University. All members of the faculty employed half time or more are eligible to apply for faculty professional development assignment. There is no restriction on length of service in order to qualify for a faculty professional development assignment, however priority is given to accomplished senior faculty; to those faculty who are seeking competitive.
AAU-caliber fellowships (e.g., Fulbright Award); and to faculty who have not received a faculty professional development assignment in the past five years.

- **University of Northern Iowa.** Policies and procedures relating to PDA at UNI are defined in the Faculty Handbook. A recipient of a PDA is ineligible for a subsequent assignment during the three years following an award. According to the UNI Faculty Handbook, “In certain circumstances, such as adverse or unexpected budget conditions, it may be necessary for the university to make a temporary exception to certain provisions of the Faculty Handbook. In those circumstances, the Provost will consult with Faculty Leadership and the Faculty Handbook Committee as practicable before making any temporary deviation from the Handbook.” The decision to suspend PDA awards for FY 2022 was supported by Faculty Leadership and the Faculty Handbook Committee and officially implemented by the Provost on July 1, 2020.

**Review process.** The three universities conduct a rigorous review process for each proposed PDA. Peer review and recommendation are the basis of selection at the department and college levels at each university and final approval by the provost. Criteria considered include the impact of the proposed PDA on the institution and the state.

**Length of assignments.** Professional development assignments are usually for one semester, although they may be up to a year. For PDA that are two semesters in length, compensation is limited to the amount of compensation a faculty member would receive during a semester-long assignment. Salary savings generated from faculty members on assignment for a full year offset the replacement costs for other faculty members.

**Obligation to institution.** Iowa Code §262.9(14) requires that a faculty member return to the institution for twice the length of time of the professional development assignment or to repay the costs associated with the PDA if the faculty member does not return to the institution. Following a PDA, faculty members are responsible for reporting the results of their assignments as specified by Board Policy 2.1.4.R. and institutional guidelines.

**Value of professional development assignments.** The PDA provide increased visibility and prominence of faculty and departments in research and scholarship and direct application of expanded knowledge to students, Iowans, the nation, and the world. Recipients often compete successfully for external grants that benefit the professors, the programs, the universities and the state by generating revenue for core university activities and research opportunities for undergraduate and graduate students.

**Proposed activities.** Faculty members engage in a variety of productive activities during their PDA. For example, faculty members perform intensive research, write scholarly books and articles, create new works of art and composition, present papers, work in industry, prepare grant proposals, mentor graduate students, and develop modeling systems, software, course materials and multimedia resources for their discipline. These opportunities enrich the educational environment of the universities and are essential to the academic vitality of the universities.

**Faculty replacement costs.**

- At SUI, the total projected cost of the program for FY 2022 is $207,231. For the recommended awards, costs will be reduced, where possible, by having colleagues cover courses or deferring non-required courses to a later time.
- To the extent possible, ISU department chairs and deans provide flexible approaches to managing the workload and associated costs for the assignments, such as in realignment
or alternate scheduling of courses. For example, some PDA requests do not represent new costs but instead are managed by the department through a reassignment of course load among current faculty. Salary savings generated from the faculty members on assignment for a full year are used to offset the replacement costs in other cases. The total funds allocated for teaching replacement salary costs for FY 2022 PDAs is estimated to be $166,588. There are no research-related expenses for ISU faculty approved for this program.

### BUDGETED REPLACEMENT NET COSTS

**FY 2020 – FY 2022**

<table>
<thead>
<tr>
<th></th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUI</td>
<td>$205,300</td>
<td>$256,949</td>
<td>$207,231</td>
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<tr>
<td>ISU</td>
<td><em>$36,649</em></td>
<td><em>$96,102</em></td>
<td><em>$166,588</em></td>
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<tr>
<td>UNI</td>
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<td><em>$47,887</em></td>
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<td><strong>REGENT TOTAL</strong></td>
<td><strong>$461,999</strong></td>
<td><strong>$400,938</strong></td>
<td><strong>$373,819</strong></td>
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</tbody>
</table>

*Change in calculation of costs to reflect net costs (estimated costs minus salary savings)*
University of Northern Iowa

The University of Northern Iowa suspended the awarding of Professional Development Assignments for the 2021-2022 academic year due to budget constraints, therefore, there are no recommendations being submitted to the Board of Regents this year.

Iowa State University

ALIPOUR, ALICE, Associate Professor, Civil, Construction, and Environmental Engineering, 5.8 years of service, 2021-2022 academic year
Title: Development of New Data-Assisted Resilience Indices for Civil Infrastructure Systems
Professor Alipour will visit the Swiss Federal Institute of Technology during her proposed assignment, working on data-assisted decision support systems that protect physical assets from flooding and extreme wind events. Alipour will also facilitate the exchange of students and scholars, and submit funding proposals.

CARTER, WILLIAM HOWARD, Associate Professor, World Languages and Cultures, 9 years of service, spring 2022
Title: Devilish Details: Goethe and the Art of Administration
Professor Carter will complete and seek publication for a book project during his proposed assignment. Devilish Details: Goethe and the Art of Administration seeks to break new ground in understanding how Goethe’s business acumen contributed to his literary works, and will further position Carter as a preeminent Goethe scholar.

COSTABILE KELLY, KRISTI, Associate Professor, Psychology, 10 years of service, spring 2022
Title: Illness Narratives, Causal Beliefs, and Health Outcomes
Professor Costabile will examine the narratives and beliefs of individuals coping with chronic serious illness, with particular attention given to those diagnosed with cancer. This work will result in the submission of a National Institutes of Health grant application, and creating interventions that help cancer patients develop adaptive coping strategies to improve both physical and psychological health outcomes.

CREDE, MARCUS, Associate Professor, Psychology, 6 years of service, fall 2021
Title: Decision-Making Competence: Developing an Individual-Difference Based Approach to Assessment and Measurement
Professor Crede will focus on the development, testing and validation of psychometric tools that may be used to assess individuals’ decision-making skills and competence. This work will be the basis of grant applications to the Russel Sage Foundation and federal funding agencies, and will be incorporated into Crede’s psychology courses.

FENG, HUI, Associate Professor, Marketing, 7 years of service, spring 2022
Title: Hui Feng’s PDA Plan, Scholarly Research and Achievements
Professor Feng will visit Indiana University’s Johnson Center for Entrepreneurship and Innovation during the proposed assignment, developing new insights and research in entrepreneurial marketing. Outcomes include published articles in leading marketing journals and additional courses and coursework for the Ivy College of Business.
FONTAINE, LISA MARIE, Associate Professor, Graphic Design, 33 years of service, fall 2021
Title: Bridging the Pedagogical Gap between Form and Message in Graphic Design
Professor Fontaine will conduct a series of experiments during her assignment to test and
demonstrate a more effective way to teach the foundational concepts, form and message in
graphic design education. Fontaine will develop an online learning tool based on this research,
which will benefit 80 students each year at Iowa State, as well as students learning introductory
design in Iowa’s community colleges.

GRAY, BETHANY DIANNE ELKE, Associate Professor, English, 9 years of service, fall 2021
Title: Corpus-based research methods for grammatical analysis: Extending beyond structure to
patterns of use
Professor Gray will develop an academic book on corpus-based research methods during the
assignment, which involves the analysis of large samples of authentic texts. This work will
highlight Iowa State’s core focus on technology and its emphasis on data-informed applications,
and will provide a foundation for future development of corpus-based research methods.

HERNANDEZ SANDOVAL, BONAR L, Associate Professor, History, 6 years of service, 2021-
2022 academic year
Title: The Making of Guatemala’s Religious and Political Activists during the Cold War
Professor Hernandez’s project will address the question, “Why do people become activists?” by
examining the religious and political context that inspired Guatemalan Catholics to become
political activists and even revolutionaries during the Cold War. This work will result in a book-
length manuscript, and development of an Iowa State course on the history of religion and politics
in Latin America.

KELLY, JONATHAN W, Professor, Psychology, 11 years of service, spring 2022
Title: Navigation in virtual reality
The assignment proposed by Professor Kelly is part of a Fulbright application to conduct research
in New Zealand, examining human navigation using virtual reality (VR) equipment that is available
only at the host institution. Specifically, Kelly will study whether adding footstep vibration and wind
to simulate self-motion will mitigate disorientation and motion sickness, which are current
challenges in using VR technology. The research will result in new funding proposals.

LE, WEI, Associate Professor, Computer Science, 6 years of service, fall 2021
Title: Analyzing and Testing AI Systems
Artificial intelligence (AI) has created a great impact on industry and daily life. Professor Le’s
assignment will address current challenges in AI technology by applying software engineering
techniques such as program analysis and testing. Project outcomes will include publications,
presentations, open-source data and tools, funding proposals, and courseware that can be
integrated into Iowa State computer science courses.

LILLIGREN, INGRID MARGARET, Professor, Art and Visual Culture, 27 years of service, fall
2021
Title: Adaptations
Internationally recognized multidisciplinary artist Theaster Gates – an Iowa State alumnus and
holder of an honorary doctorate – has invited Professor Lilligren to create a series of ceramic
sculptures in his Chicago studio during fall 2021. The series, Adaptations, will address the
disappearance of planetary ice, incorporating visual metaphor, Braille text and ongoing glaze
research. The work will be submitted to Iowa State’s Biorenewables Art Innovators Competition
and other venues.
MAO, HUIFANG, Professor, Marketing, 4 years of service, fall 2021
Title: Effects of Virtual Fitting Room Among Consumers of Varying BMI Levels
Professor Mao’s research is focused on understanding how consumers process market information and make decisions. In the proposed assignment, Mao will explore why virtual fitting rooms increase product sales among some groups, but not others, which will result in journal articles on this understudied topic.

MBA-WRIGHT, MARK, Associate Professor, Mechanical Engineering, 8 years of service, spring 2022
Title: Next-generation simulation and modeling of biorenewable, agronomic, and human systems for enhanced climate-change resiliency and decision-making
Professor Wright will develop tools that integrate global earth models, market information, population and agriculture data to support short- and long-term decisions that help manage farms, biorefineries, and biorenewable markets. Wright's research will also be incorporated into an Iowa State course on global climate and energy systems, and will lead to journal articles, presentations and funding proposals.

MYERS, MEGAN JEANETTE, Associate Professor, World Languages and Cultures, 4 years of service, spring 2022
Title: Assessing Impact at Home and Abroad: International Community-Based Learning
Professor Myers will teach a weekly community-engagement literature class for high school students in the Dominican Republic, as well as lead workshops on Haitian-Dominican relations for the students and community. These experiences will allow Myers to assess the impact of community-based learning courses, leading to more sustainable local partnerships and greater impact for students studying abroad.

NEPPL, TRICIA K, Associate Professor, Human Development and Family Studies, 9 years of service, spring 2022
Title: The Role of Cumulative Stress and Stress Biology on Health in an Aging Rural Population
Professor Neppl will advance her current scholarship, which uses a family stress model framework, to further understand the influence of economic and social stress, as well as stress biology, on health and cognitive functioning in older adulthood. This work will result in grant applications, journal articles and national/international presentations.

OLSON, ERIC D, Associate Professor, Apparel, Events, and Hospitality Management, 6 years of service, fall 2021
Title: A Teaching and Research Fulbright Scholar, Fulbright Program with Vin University
Professor Olson will use the proposed assignment, as a Fulbright Scholar, to assist Vin University in Hanoi, Vietnam with the development of their hospitality management degree program. Olson will also teach two classes in the Bachelor of Tourism Management program, conduct research and establish international collaborations, the results of which will be shared in peer-reviewed papers and presentations.

PASCHKE, TERESA, Professor, Art and Visual Culture, 20 years of service, fall 2021
Title: Art Practice: New Directions
Professor Paschke's assignment will support a period of reflection and creative renewal by providing a focused time in which to learn, explore and develop new techniques in the creation of woven textiles. Paschke will also create new artwork in preparation for an upcoming solo
exhibition in the Mary Giles Gallery in Minneapolis, and apply for a McKnight Fellowship for Fiber Artists.

PHILLIPS, LEIGH ALISON, Associate Professor, Psychology, 6 years of service, fall 2021
*Title*: A Behavior Change Triage Tool and Coordinated Health Hub for Optimizing Patient Care
Half of premature deaths are attributable to individuals’ health-related behaviors, such as poor medication adherence and lack of exercise. Professor Phillips will work with Iowa State graduate students and collaborators in central Iowa to develop and test an innovative solution to this issue – a triage tool and coordinated health hub – that helps healthcare providers identify non-adherence and prescribe evidence based solutions.

REMESES, JUSTIN, Assistant Professor, English, 5 years of service, 2021-2022 academic year
*Title*: Found Footage Films: A Work of Experimental Scholarship
Professor Remes, an expert in experimental cinema, will complete a book during his proposed assignment. *Found Footage Films* will examine the history of cinematic remixes, works that are created by manipulating and re-editing footage from preexisting films, and explore what it means for a work of art, or critical writing, to be original. The book will also provide historical context for a current media environment that relies on mashups, supercuts, viral memes, and other appropriated images.

SAMS, BRANDON, Assistant Professor, English, 3 years of service, fall 2021
*Title*: Reading as a Teacher: Knowledge, Pleasure, Responsibility
Professor Sams’ book project centers on the inner lives and experiences of English teachers as they read and prepare for class, and will influence how Iowa State students prepare to teach literature in their own classrooms after graduation. Sams will also share his research at scholarly conferences, and incorporate the findings into his classes for aspiring English teachers.

SCHAAL, MICHELE A, Associate Professor, World Languages and Cultures/Women’s and Gender Studies, 8 years of service, fall 2021
*Title*: The Art of Genre- and Genderbending: Virginie Despentes’ Authorial Politics
Professor Schaal will complete several original chapters for her monograph on Despentes, a major literary and feminist figure in the French-speaking world and globally, during the assignment. The work will benefit Iowa State students by providing new material for Schaal’s classes, and for the greater public that in increasingly interested in Despentes’ work.

SHAFEI, BEHROUZ, Associate Professor, Civil, Construction, and Environmental Engineering, 5.8 years of service, 2021-2022 academic year
*Title*: Novel Structural Applications of Shape-Memory Materials for Hazard Mitigation Purposes
Professor Shafei’s proposed assignment will explore the use of shape-memory materials to design structures, such as concrete bridge columns, that are resilient to natural and man-made hazards. Expected outcomes of this work include new sponsored research projects, new collaborations and new coursework for students.

SUAREZ, LUCIA M, Associate Professor, World Languages and Cultures, 3.8 years of service, fall 2021
*Title*: Belonging: Latina Memoirs in Times of Displacement
Professor Suarez’ book project centers on ideas of democracy in the U.S., and the role of Latina life writings to shape human rights activism and civic solidarity. The project will also lead to fellowship applications in the arts and humanities, invited lectures, and it will contribute to curriculum development in Iowa State’s cross-disciplinary U.S. Latino/a Studies program.
SWANNER SMITH, ELIZABETH, Associate Professor, Geological and Atmospheric Sciences, 5 years of service, fall 2021

Title: Determining the biogeochemical significance of iron-rich lakes in the Midwest, U.S.A.
Professor Swanner’s assignment will allow her to lead several field campaigns to lakes in the Midwest with undergraduate and graduate students, as well as engage in public outreach activities, in support of a National Science Foundation CAREER Award. This work will lead to the submission of numerous manuscripts and grant applications, a new geology field course.

TESSONNIER, JEAN-PHILIPPE, Associate Professor, Chemical and Biological Engineering, 8.3 years of service, fall 2021

Title: Electrifying the Production of Biobased Chemicals
The production of chemicals from agricultural feedstocks represents tremendous societal and economic opportunities for Iowa. Professor Tessonnier will study the use of electricity instead of heat to promote chemical transformation in feedstocks, already in use in the pharmaceutical industry, to facilitate complex reactions and reduce production costs. Tessonnier will also establish collaborations with colleagues in Germany, and submit several funding proposals.

WU, YUE, Professor, Chemical and Biological Engineering, 6.3 years of service, spring 2022

Title: Integrated Electricity-Heat-Clean Water Cogeneration for Environment and Energy Sustainability
Professor Wu will conduct collaborative research in Taiwan during the proposed assignment, examining the bottlenecks of integrated electricity-heat-clean water cogeneration systems. This work will expand Wu’s expertise in heat transfer technologies, resulting in journal publications, national and international conference presentations, student exchange and a patent.

ZARECOR, KIMBERLY ELMAN, Professor, Architecture, 15 years of service, spring 2022

Title: Advancing a Collaborative Research Agenda for Rural Iowa Communities
Professor Zarecor will use her proposed assignment to work on a new community innovation initiative in the College of Design, based on her funded research on the quality of life in small and shrinking Iowa towns. The goal of this work is to increase the visibility, scope and impact of externally funded projects across the university. Outcomes of this work will also include a new interdisciplinary undergraduate course on rural communities, and the submission of funding proposals.

Zhou, Yuyu, Associate Professor, Geological and Atmospheric Sciences, 5 years of service, fall 2021

Title: Global urbanization and building energy use modeling for urban energy sustainability
Professor Zhou’s project will develop region-specific strategies to mitigate growing energy demand in urban areas for energy sustainability. The research will enrich Zhou’s teaching of remote sensing and GIS courses for Iowa State students, and result in the submission of articles, presentations and funding proposals.

Zhu, Dan, Professor, Information Systems and Business Analytics, 22.3 years of service, spring 2022

Title: Research and Teaching in Data Analytics
Professor Zhu will pursue a Fulbright Scholar award to support her assignment in Pennsylvania and Slovakia, which includes interacting with world-known scholars in artificial intelligence and machine learning, sharing research on smart health informatics, and developing new collaboration to benefit Iowa State’s students and academic programs. Results will also be shared through publications and conference presentations.
AMIR, RABAH, Professor, Economics, 7.5 years of service, half time for academic year

*Title*: Game Theory: Teaching and Research

Professor Amir plans to engage in three separate tasks: a) complete the writing of a new textbook on Game Theory initiated in 2013 to be used in one of his undergraduate classes at Iowa, b) initiate inter-disciplinary research in evolutionary game theory (at the interface of economics, applied mathematics and biology), and c) continue research in his usual areas of study. The book aims to be an updated introduction to the field of game theory and its economic applications, geared towards a first course, but will also include some advanced topics at the level of an MA course. The new research will use the new methodology of super modular games to explore the relationship between survival concepts in market competition in economics and in evolutionary biology, with a focus on their implications for market performance and intra-firm organization. The last part includes ongoing projects in various sub-fields of economics, including game theory, industrial organization and environmental economics.

BARDHOSHI, GERTA, Associate Professor, Rehabilitation & Counselor Ed, 5 years of service, spring 2022

*Title*: School Counselor Burnout Profiles and Early Training Experiences: A Mixed Methods Study

Professor Bardhoshi will examine the distinct burnout profiles of K-12 school counselors and the educational experiences that impacted their professional development. Prior research has established school counselor burnout as a critical issue not only because of the significant impact effective school counselors have on meeting the diverse mental health needs of their students, but also due to the deleterious effects of burnout on school counselors’ own professional and personal lives. This project will apply cluster analysis, along with analysis of qualitative responses about school counselors’ graduate training experiences to better understand the interaction between personal, educational, and organizational factors that are implicated in burnout. This project may help clarify how individual differences on these factors inform burnout profiles and help identify customized prevention and early intervention measures that can be applied during graduate training. This project is expected to result in a journal article and generate specific recommendations for counselor education programs that can be directly incorporated in Prof. Bardhoshi’s graduate school counseling courses.

BARRAGÁN, ELOY, Associate Professor, Dance, 15 years of service, fall 2021

*Title*: UNIONES; On the Stage, On the Street, On the Street

Dance companies were unprepared to pivot their presentations when COVID-19 closed theaters worldwide. Dance makers typically create with performance space in mind. Professor Barragán proposes to use the PDA to develop a choreographic method teaching students to be able to pivot and design dance-making for three platforms simultaneously: the proscenium stage, specific sites, and virtual platforms. During the PDA, Barragán will produce an interpretation of Les Noces (Marriage), titled UNIONES, set to Stravinsky's score with the National School of Classical Ballet and Contemporary Dance (ENDCC) in Mexico City. This interdisciplinary, collaborative project between the screen-dance program and the classical/contemporary training programs will be performed on the stage at the Raul Flores Canelo Theater, on the street with Dance Investigation Center Outdoor Theater, and on the screen with Dance Investigation Center Cinema Theater. With this experience, Barragán will create curriculum for Choreography III and IV, and re-stage UNIONES in 2022 with the UI School of Music and/or Cedar Rapids Opera Theater.
BLEHER, FRAUKE, Professor, Mathematics, 20 years of service, half time for academic year

Title: Cryptographic multilinear maps and arithmetic geometry

During the PDA, Professor Bleher will conduct research in arithmetic geometry with the goal of constructing cryptographic multilinear maps. Such constructions would have far-reaching consequences to cryptography, such as secure broadcast encryption, unique signature schemes and one-round multi-party key exchanges. Whereas some bilinear maps have been successfully constructed, efficient and computable multilinear generalizations have been elusive for quite some time. Bleher's goal is to develop new research in arithmetic geometry to make progress toward finding such multilinear generalizations. The PDA will give Bleher the necessary time to work on this project with her collaborators, which is crucial for the success of this project and its continuation in the future. This project is expected to result in several research articles and in a new grant application to the National Science Foundation, in addition to new material for Professor Bleher's graduate courses and her supervision of Ph.D. students.

BLOOM, STEPHEN G, Professor, Journalism & Mass Communication, 27 years of service, fall 2021

Title: The Brazil Herald: The Story of the CIA, Hunter S. Thompson, a Fearless Reporter, and a Legion of Kick-Ass Adventurers

The untold story of the English-language newspaper, the Brazil Herald, published from 1946-1988, modeled after the Paris-based International Herald Tribune. The Rio de Janeiro-based Brazil Herald attracted a surfeit of talent: Gonzo journalist Hunter S. Thompson; New York Times correspondents Tad Szulc, Juan de Onís, and Raymond Bonner; Huffington Post CEO Eric Hippeau; and hundreds of influencers at all levels of journalism. Many would become the backbone of the AP, UPI, Dow-Jones, Bloomberg, Reuters, Agence France-Presse, Knight-Ridder, New York Times, and Los Angeles Times. If Paris had been the haven for émigré American writers in the first half of the 20th Century, then Brazil became the New Wave destination for a different kind of storyteller during the second half: daring journalists. Brazil was a port of call for wannabe incarnations of Ernest Hemingway, Martha Gellhorn, Jack Kerouac, and Joan Didion. Outcome of the PDA will be a nonfiction book, which will augment Professor Bloom's depth of teaching skills, as well as provide significant journalism history. He knows his subject matter intimately: early in his career, he worked as an editor for the Brazil Herald.

BRANCH, LORI A, Associate Professor, English, 20 years of service, fall 2021

Title: Postsecular Reason

Professor Branch will complete the book Postsecular Reason and submit it for publication. This research enhances the classes on literature, religion, and postsecular studies that Branch teaches to UI undergraduate, honors and graduate students. The book will further establish her as an expert in fields on which she regularly lectures in Asia, Europe and the US. It will strengthen her ability to secure grants, which have included two six-figure awards from the NEH. The PDA and the resulting book will benefit society by increasing understanding about the history of religion and secularism, decreasing religious and secular violence, and overcoming the perception of opposition between religious and secular forces in culture, advancing richer, postsecular modes of human flourishing.

CREEKMUR, COREY, Associate Professor, Cinematic Arts, 19 years of service, spring 2022

Title: An Anatomy of the American Comic Book

Professor Creekmur will research and complete a book on the American comic book as a material object. His study will be the first to fully consider this common publication format as an artifact with distinctive features that are culturally significant, irrespective of the narrative content they convey. This study therefore joins the growing field of Comics Studies with the History of the Book
as well as Material Culture Studies to recover the importance of a familiar but easily undervalued product of American mass culture. The focused research supported by the PDA will allow for the completion and submission for publication of the project, which will enhance Prof. Creekmur's visibility as a Comics Studies scholar. He will continue to teach and supervise undergraduate and graduate students in this rapidly growing research field, and through this work seek to further interdisciplinary approaches to the study of U.S. popular culture.

**DALY, SCOTT R**, Associate Professor, Chemistry, 6 years of service, spring 2022  
*Title*: DOE-Funded Experiments and Training with Transuranic Elements Neptunium and Plutonium  

Professor Daly is requesting a PDA to complete important synthetic experiments with neptunium, a highly radioactive element that resides next to uranium on the periodic table. Prof. Daly currently has funding from the Department of Energy, Basic Energy Sciences Separations Program to complete this work at UI. The neptunium experiments are hazardous, will take several months to complete, and can only be conducted with Daly working side-by-side with graduate students to ensure the oversight necessary to carry out the experiments safely. A PDA will allow Daly to train graduate students in the handling of this highly radioactive element. The results will be leveraged for his DOE proposal renewal and used to support several publications in high impact chemistry journals. Prof. Daly is also currently pursuing a sabbatical position at Los Alamos National Laboratory for part of the PDA period and into the summer to carry out related experiments with plutonium. These objectives will be carried out while continuing typical research activities that include mentoring students, publishing high-quality research papers, and giving invited talks.

**DARCY, ISABEL K**, Associate Professor, Mathematics, 17 years of service, fall 2021  
*Title*: Tangle tabulation, data visualization, and developing educational resources for mathematical writing  

Professor Darcy will collaborate with professors Radmila Sazdanovic at NCSU and Mariel Vazquez at UC Davis to submit an NSF proposal on creating a database of tangles. A tangle is a ball containing strings with the ends of the strings attached to the boundary of the ball. Tangles have been used to model proteins bound to DNA. The database of tangles will be extremely useful to those studying the theory of knots including those applying knot theory in biology and physics. Darcy will also visit Professor Vazquez at UC Davis to visualize and analyze data using software that Darcy has developed with graduate students at UI. Furthermore, she will work with Professor Candice Price at Smith College to submit an educational grant to develop material for improving students’ mathematical writing skills. They will recruit other faculty from historically black colleges and universities to collaborate on this project.

**DELAPEÑA, GEORGE R**, Professor, Dance, 15 years of service, spring 2022  
*Title*: Tradition and Transgression: Learning from Visionary Artists (Again)  

Professor DelaPeña will write a memoir of his research and work depicting Vaslav Nijinsky for the 1980 film: Nijinsky. Set in early 1900’s Paris, the film explores a time of extraordinary departure with tradition in art-making. The impresario Diaghilev established an atmosphere that encouraged daring creativity, launching one of the richest movements in performing arts history. Those practices were life-changing then, they were for Prof. DelaPeña in 1980, and will be in 2020. His book will illustrate how study of human behavior and innovation are sources for artmaking. Nijinsky experienced “failures.” Still, the higher goal was creative transgression, defying expectations, and inventing rather than repeating. The title includes “Again” because the artistic philosophy is pertinent today. DelaPeña will share this research in many art courses at UI such as Works of Art, a first-year seminar. Transgression, in Nijinsky and Diaghilev’s artistic mindset
as well as their personal relationship, enriched the arts of their time. This work can have renewed relevance in arts education for students today.

DESTRUEL-JOHNSON, EMILIE, Associate Professor, French and Italian, 7 years of service, fall 2021

*Title*: Scales and Scalarity: Probability and Processing of Scalar Inferences in Native French and L2 English Speakers

The process of decoding a speaker's intended meaning is known as pragmatic inferencing. Professor Destruel will complete research on this topic in native French speakers, aiming to test the empirical validity of a novel theoretical model. Prof. Destruel will adopt an empirical task designed over the year prior to the PDA and adapted from empirical studies present in recent literature. The proposed project will also examine how pragmatic inferencing is achieved and processed in native French speakers who are second language learners of English. Prof. Destruel will empirically examine whether the same factors that influence inferencing in the native language, play a similar role in the second language. This PDA will benefit students at the University of Iowa since Prof. Destruel will use the research to inform her teaching, exposing students to current issues and methods in pragmatics and second language acquisition. This PDA will benefit society more generally by presenting research on how learning a second language works; providing insights on learners who manage to gain proficiency in an area of linguistic thought to be challenging.

DURHAM, MEENAKSHI G, Professor, Journalism & Mass Communication, 20 years of service, spring 2022

*Title*: Vulnerable Lives: Understanding Vulnerability Now

As a viral pandemic decimates global populations, racial violence sunders societies, and the environment is imperiled, the topic of vulnerability is becoming vitally important. This PDA is requested to complete a book manuscript in which Professor Durham will investigate and conceptualize various aspects of vulnerability, both human and environmental. Durham will employ a variety of approaches to examine these issues, including textual analyses of media, philosophical conceptualizations of vulnerability, feminist approaches to vulnerability in relation to intersectional issues of identity (including sex, gender, and race), and ecofeminist perspectives on the environment. The research and writing of this book will enhance her teaching, where the topics covered in the book will enrich her journalistic writing classes as well as her graduate seminars on gender and media; other potential outcomes include the development of new classes and a Guggenheim Fellowship application. In a world crosscut by forces such as viral pandemics, natural disasters, and the global fallout from political strife, this book has implications for local, state, national and global policymaking.

ELIAS, STELLA B, Professor, Law, 8 years of service, fall 2021

*Title*: Immigration Lawmaking in the Era of Trump and Brexit

Professor Elias’s project, Immigration Lawmaking in the Era of Trump and Brexit, will be the first scholarly work to use comparative legal methodology to analyze the cataclysmic changes made to immigration laws in the U.S. and the U.K. from 2016 to 2021. In 2016, in both countries, highly contested political campaigns fueled calls for “tough” new restrictions on migration. Since then, the governments of both nations introduced measures to overhaul their longstanding immigration and nationality laws and policies, with the most dramatic changes occurring in 2020 after the COVID-19 pandemic swept the globe. But, thus far, no legal scholar has undertaken a comparative analysis of these rapid changes to immigration lawmaking in the U.S. and U.K. and the consequences thereof for immigrant communities at home and abroad. The project is expected to result in a book manuscript, as well as new materials for several courses that Prof.
Elias teaches at the University of Iowa. The lessons drawn from this work will also inform and assist policymakers and legislators as they engage in renewed immigration-related lawmaking.

FISHER PAGE, DARIA M, Associate Professor, Law, 3 years of service*, fall 2021

Title: History and Pedagogy of Visual Advocacy in Social Justice Movements and Movement Lawyering

A picture may say a thousand words, but lawyers are trained to use words, not pictures. In traditional legal education, students are taught extensively about oral and written advocacy, but they learn almost nothing about visual advocacy. In the 21st century, successful advocates must understand how to use design, images and video to make them effective and persuasive storytellers to audiences including legislators, juries, and social media followers. Professor Fisher Page’s project will build on her clinical legal work with nonprofits and municipalities in the State of Iowa; the workshop she teaches for law students on design and visual advocacy; and her participation in the Digital Bridges Institute. The project will look at the role of visual advocacy in social justice movements and movement lawyering with two goals: to publish an article in a law review and to create a new course for JD and MPAff students on the history and practice of visual advocacy. The project will benefit students in the new course, making them more sophisticated advocates. It will also benefit the students in Prof. Fisher Page’s clinic, the Community Empowerment Law Project, and the clients they serve.

FIXMER-ORAIZ, NATALIE, Associate Professor, Communication Studies, 8 years of service, spring 2022

Title: New Grammars for Reproductive Justice

Professor Fixmer-Oraiz will use the PDA to complete research and writing on her current book project, New Grammars for Reproductive Justice, co-authored with Prof. Shui-yin Sharon Yam at the University of Kentucky. This book examines gender and language in the context of pregnancy, childbirth, and family formation—specifically, the tension between using women-centered and gender-neutral language. Professors Fixmer-Oraiz and Yam will draw on extensive interview data to understand how feminist health care providers and advocates are addressing this contemporary dilemma. The resulting book is intended for the Reproductive Justice Series with the University of California Press, which would guarantee it a wide audience comprised of academics, reproductive health care providers, and advocates across the country. Moreover, this project is a key component of Prof. Fixmer-Oraiz’s dossier for promotion to full professor and will provide new material for her instruction of students at the undergraduate and graduate level.

FLATTE, MICHAEL E, Professor, Physics and Astronomy, 25 years of service, fall 2021

Title: Theory of Nanoscale Interactions Between Magnetic Atoms for Application to Quantum Computers

Current electronic devices use a digital, or binary, logic based on zeros and ones. An intense effort locally, nationally and internationally is underway to develop electronic devices that will use the quantum properties of matter to speed up calculations, in so-called quantum computers. Professor Flatté will develop new theories of the interaction between magnetic atoms in a semiconductor material, in order to design and evaluate the performance of quantum computers based on such magnetic atoms in silicon. He will collaborate with experimental researchers to probe the properties of these atoms and their interactions and propose new types of quantum devices. He will also participate in a regional effort to develop a new curriculum for the teaching of quantum mechanics to scientists, engineers, and artists. Understanding and applying this new effect will help in the teaching of quantum mechanics at UI, expand interactions between the departments of Physics and Astronomy and Electrical and Computer Engineering and generate intellectual property.
FRIESTAD, GREGORY K, Associate Professor, Chemistry, 15 years of service, spring 2022

Title: Collaborative Malaria Drug Discovery and Strengthening Organic Chemistry Research and Teaching

The Friestad Research Group discovers new ways to synthesize organic compounds of importance in agriculture and medicine, with an emphasis on improving efficiency, versatility, and environmental impact. The proposed PDA will support the strengthening of a new collaborative program with Professor Debopam Chakrabarti of the University of Central Florida in developing new malaria drugs based on recently discovered polyol natural products with antiplasmodial activity. The PDA will also support enhancement of ongoing research in radical–polar crossover reactions and asymmetric catalysis to prepare valuable building blocks for new medicines. The research results from this program will provide new and efficient ways to build organic compounds for materials science, agricultural chemistry and drug discovery. The PDA will also facilitate the last stages of review and publication of a new organic chemistry laboratory textbook that is under publishing contract. This project will bring external recognition to UI Chemistry and produce talented BS and PhD chemists who can strengthen the Iowa workforce and support economic development in the state.

FUMERTON, RICHARD, Professor, Philosophy, 46 years of service, fall 2021

Title: The Philosophy of Philosophy

Philosophers ask about the nature of such things as knowledge, causation, value, perception, and mind. They often disagree, however, on how to understand the questions they are asking and how to argue for proposed answers. Such disagreements raise the metaphilosophical questions: What is philosophy and what are the distinctive methods of philosophical inquiry? Prof. Fumerton will write a book that argues for his conception of the distinctive character of philosophy. The project will be prescriptive. It is folly to search for unity in all the activity that has been called philosophy. Rather the goal is to define a field of inquiry and expertise that is distinctively philosophical, one that is quite different from any of the other physical or social sciences. Philosophy is currently having a bit of an identity crisis. Many philosophers now seek help from the empirical sciences to answer the questions that interest them. But, Prof. Fumerton argues, philosophy asks questions that are not answerable by any of the traditional empirical sciences, questions that are both fundamental and critical to thinking clearly and rationally about the world in which we live.

GILSTER, MEGAN E, Associate Professor, Social Work, 8 years of service, fall 2021

Title: Does Providing Permanent Supportive Housing to Address Chronic Homelessness Change the Community?

An estimated 100,000 Americans experience chronic homelessness (i.e., have a disability and have been homeless for at least 12 months). Permanent Supportive Housing (PSH) improves outcomes among those experiencing chronic homelessness. However, we know little about the social benefit of PSH. In the proposed study, Professor Gilster will use administrative data to examine changes in calls to police, police interactions, and arrests. Through this project, Gilster will produce one manuscript, a conference presentation and a report to the local community. The report may help local advocacy groups and service providers secure resources to expand services to more individuals experiencing chronic homelessness in Iowa. Gilster will also use this project as a case study in classroom teaching to prepare future social workers in Iowa to engage with evidence-based practice and to serve this vulnerable population.
GOLZ, SABINE I, Associate Professor, German, 33 years of service, fall 2021  
**Title:** The Subconscious is in the Construction: Gender, Mimesis, and Poetic Architecture in Walter Benjamin’s Arcades Essays  
Professor Götz will spend a PDA working on her book "The Subconscious is in the Construction: Gender, Mimesis, and Poetic Architecture in Walter Benjamin’s Arcades Essays." With this book, Prof. Götz revises a central assumption about the work of the important 20th-century theorist Walter Benjamin (1892-1940). Benjamin's work has had a vast influence on current cultural and media studies. But scholars tend to read him first and foremost as a philosopher. Götz shows that Benjamin’s strategies are instead quintessentially literary. She demonstrates that his theory of language derives from his three most important literary sources of inspiration: the works of German Romantics, French poet Charles Baudelaire, and Franz Kafka. From these, he adapts his theory of mimesis, his architectural metaphors in the notion of poetic 'construction,' and most importantly, his strategic use of gender. All of these remain invisible in a philosophical reading. Prof. Götz's analysis further shows that women writers and theorists, most importantly Austrian poet Ingeborg Bachmann (1926-1973), have developed a lucid critique and counter-model to the strategies of Benjamin and his literary predecessors.

HOLLINGWORTH, LIZ, Professor, Education Policy & Leadership Studies, 14 years of service, spring 2022  
**Title:** A Program Evaluation of the Role of Education in Mexican and Belizean Mayan Communities  
Professor Hollingworth’s project focuses on the education of children of Mayan descent in Mexico and Belize. Building on her earlier research and teaching, she will conduct program evaluation field work in the schools in the Yucatan peninsula to study how bilingual children (Mayan-Spanish in Mexico and Mayan-English in Belize) are educated post-COVID19 pandemic. The proposed activities include site visits to schools in Mexico to research government-funded school improvement initiatives. Hollingworth will then travel with Iowa undergraduate study abroad students to work with Mayan school children in Belize, where the language of instruction is English, negating the need for the UI students to speak Spanish. The comparison of bilingual education in the schools in the two countries will result in several journal articles, international conference presentations, and new material for Prof. Hollingworth’s graduate course on program evaluation methodologies across cultural contexts.

JOHNSON, DAVID CASSELS, Associate Professor, Teaching and Learning, 7 years of service, spring 2022  
**Title:** Educational Equity for Linguistic Minorities in Iowa Schools: An Examination of Bilingual Education Teacher Preparation  
Professor Johnson’s project focuses on (1) U.S. policies and practices in teacher education programs that prepare pre-service teachers to work in bilingual education classrooms, and, (2) the training of in-service teachers and pre-service bilingual education teachers at the University of Iowa. Over the past two decades the number of students who speak a language other than English – and are classified as English Language Learners – has increased 250% in Iowa. Educators and policymakers have struggled to provide equal educational opportunity for these students but a type of bilingual education (Dual Language Education) has become increasingly popular. UI offers an ESL endorsement but the state of Iowa offers no bilingual education-specific credential. Therefore in 2018, as part of the ACCEL in Iowa grant project, a Dual Language Specialization within the ESL Endorsement was created. The results of this project will be used to improve coursework in the Dual Language Specialization, which will better prepare UI graduates to teach linguistically and culturally diverse students. The project is expected to result in at least one journal article and two conference presentations.
KINSE, RYAN D, Associate Professor, Mathematics, 7 years of service, fall 2021

Title: Bridging theory and practice: applications of quiver representations in data science

This PDA will allow Professor Kinser to apply his expertise in theoretical mathematics to applications in data science, a field which has impacted areas such as healthcare, transportation/travel logistics, manufacturing, and finance/banking to name a few. This will be accomplished through a series of visits to the University of Missouri to work with the Algebraic and Probabilistic Methods in Data Recovery group. These visits will be complemented by the organization of an interdisciplinary research seminar at the University of Iowa on this topic. This PDA will benefit students at UI because the seminar will introduce them to a newly developing research area at the interface of pure mathematics and applications in data science, and new research projects will result that will prepare them well for careers in business, industry, government and academia. The PDA will benefit the state of Iowa by contributing to STEM workforce development for careers in these areas, and opening new funding sources for research and training in Iowa. The PDA will benefit society more broadly by developing new applications for theoretical mathematics in data recovery.

KITAMOTO, TOSHIHIRO, Associate Professor, Medicine-Anesthesia, 17 years of service, full time for academic year

Title: Neuroimmune Interactions that Regulate the Severity of Seizures in Drosophila

Professor Kitamoto will investigate dynamic crosstalk between the brain and the immune system that plays a significant role in controlling the severity of neurological disorders caused by genetic defects. Proposed experiments will be performed using a versatile model organism, the fruit fly Drosophila melanogaster in collaboration with two prominent scientists with expertise in neural and immune system development, respectively. The project will extend Prof. Kitamoto’s research concerning the genetic regulation of behavior to mechanistic analyses at the cellular level. Since Drosophila research has an excellent record in illuminating evolutionarily conserved, fundamental aspects of biology, the outcomes of the study are expected to be applicable to mammals including humans, and provide valuable insights into future development of novel therapies to combat difficult-to-treat nervous system disorders. The project is also expected to result in journal articles, conference presentations, and a grant from NIH. New findings will be used as material for lectures and as preliminary results supporting research projects for students in undergraduate and graduate programs.

LANDINI, GREGORY, Professor, Philosophy, 31 years of service, spring 2022

Title: Principia Mathematica Redux

Professor Landini’s project is to write a commemorative guide book, Principia Mathematica Redux, hopefully for Cambridge University Press. The book engages with the Logicism of Whitehead and Russell’s Principia Mathematica (Cambridge: vol. 1, 1910, vol. 2, 1912, vol.3 1913). The anniversary of the 1925 second edition is coming. Prof. Landini’s book is to be a canonical statement of the many controversies of interpretation and solutions. Prof. Landini has published many articles on Principia, its stark difference from Frege’s logicism (which sadly became the paradigm), and its thesis that mathematical logic is a genuine science that studies relational structures. The book will highlight Prof. Landini’s very recent new discoveries (some of which may be published independently) in one succinct guide book that can be used as a textbook on Logic, including the limits of Gödel’s incompleteness theorems, a history book on the evolution of Principia, and a general introduction to the science of logic.
MERINO, ANA, Professor, Spanish and Portuguese, 11 years of service, spring 2022
Title: AMIGO (FRIEND): A Novel
Professor Merino’s project is the completion of a manuscript of a novel entitled “AMIGO” (FRIEND), which involves research in the Family Archive of Joaquín Amigo, a Spanish catholic philosopher with a deep spiritual perspective about friendship and tolerance who was killed at the beginning of the Spanish Civil War. He was a very close friend of the poet Federico García Lorca and both were killed within a week of each other, by opposing sides. The dramatic events prompted Amigo’s widow to keep all of her husband’s personal documents in a locked box. Amigo’s grandchildren have given Professor Merino permission to work and do research on the original materials that are preserved and that belong to the early 20th century, including letters from Lorca, writer Francisco Ayala and manuscripts by poet Luis Rosales, among other relevant figures. The novel will work historical recreation and narrative fiction reflecting on friendship, creativity and history. The process of historical research and writing featured in the novel will help undergraduate and graduate students of creative writing understand the past in complex and diverse societies. The novel will be presented for publication.

MIDTROD, TOM ARNE, Associate Professor, History, 11 years of service, spring 2022
Title: Native Americans as Refugees in Early America
Professor Midtrod’s book manuscript examines the experiences of Native American refugees in the late seventeenth and early eighteenth centuries. During this period, thousands of Native people were displaced from their homelands in the American Northeast, and the movements of these people reverberated throughout the region, creating political, diplomatic, economic, and military challenges for Indians and Europeans alike. The study of these refugee movements is important for understanding early American history and may also contribute to our understanding of the experiences of refugees in general, a topic of great relevance to the modern world. Professor Midtrod's study is intended to be published as a book by a major academic press.

MILLER, DANIEL W, Associate Professor, Art and Art History, 6 years of service, spring 2022
Title: Intersection of Public Art with Electronic Media
Professor Miller is requesting a PDA to support his creative work goals. Since receiving tenure, Miller has committed his research efforts toward realizing permanent public art projects. The essential extra time that a PDA provides would be used for research, design and fabrication of new public art projects that integrate technology with conventional materials. Prof. Miller’s goal will be to have a public art project lined up and under production by the start of this PDA. Ideally, the end of this PDA will coincide with the completion of a new public art project. This public creative work translates directly into the classroom where Prof. Miller can share his experience, insight and new skills gained during these projects. Students will further benefit from these projects by being hired as paid assistants to assist with the project’s fabrication. All the recent permanent public art projects Prof. Miller has completed have become enduring focal points for people to gather around within the communities across Iowa where they are located.

MUNOZ, LUIS, Associate Professor, Spanish and Portuguese, 4 years of service**, spring 2022
Title: Antonio Machado: Approaches to a Poetics of Negation
Professor Muñoz will use his PDA to complete a book on the Spanish poet Antonio Machado, which proposes a new reading of his poetry. Machado is among the most important 20th-century poets in the Spanish language, and his poetry is central to narratives of modern Spanish literature. This project proposes a new perspective on Machado’s work that places acts of rejection or negation at the center of his poetry and poetics, forging a new understanding of his relationship to the Spanish literary tradition, to his contemporaries, and to the poets of younger generations. This aspect of Machado's thinking has never been fully analyzed by his critics, who have
minimized the disruptive nature of his relationship both with the traditions of Spanish poetry he inherited, and with the younger poets who came after him. Several of the most prestigious Spanish-language publishing houses have expressed interest in this project, which will contribute to the international reputation of the University of Iowa as a writing university.

OLIVEIRA, SUELY P, Professor, Computer Science, 22 years of service, spring 2022
Title: Developing Machine Learning Methods in Education and Biology
Professor Oliveira will extend her previous work on neural networks for evaluating educational tests, to evaluate new approaches to medical issues. With the current pandemic, the number of patients with mental health issues may increase. Currently, approximately 18 million people have at least a single episode of depression in the USA each year. Knowing the severity of someone’s depression is very important, so timely care occurs and appropriate medication is used. This work will be developed with a collaborator at University of São Paulo and she plans a visit during this PDA. Prof. Oliveira has also designed neural networks for predicting antibiotic resistance in bacteria based on the acquisition of genes and mutations that confer resistance to antibiotics. She will design neural networks to predict the minimum inhibitory concentration (MIC) for antibiotic–bacteria pairs. The goal is to find out why we are getting these false predictions. For this, she will visit JMI Laboratories in North Liberty for at least two weeks and continue supervising graduate students working on these topics.

OSIEL, MARK J, Professor, Law-Faculty, 28 years of service, spring 2022
Title: Culpable Victims: Law in the Moral "Grey Zone"
The law often encounters situations where we are uncertain whether to treat someone chiefly as a victim or as a wrongdoer—because he is clearly both, sometimes equally so. The harm he wrongly suffers relates so closely in nature or time to the harm he inflicts that lawmakers are strongly inclined to address both within the same proceeding. Yet psychologists show that once we initially view someone as a victim, it becomes quite hard to reconceive him as also a wrongdoer (and vice versa). This book examines how the law treats a dozen such “guilty victims”: e.g., the battered woman who kills her abusive romantic partner; the child who commits atrocities after forced into soldiering; the military leader who orders war crimes in reprisal for the enemy’s similar wrongs against his own forces; the asylum seeker who has persecuted others in this homeland and is therefore denied refugee status abroad. This book (the author's seventh) will assess the strengths and weaknesses of law’s response to each of these several situations, to learn how we might improve its responses to the others, in light of the similar challenges they pose. This research will inform a new course offered on this topic.

PIGGE, CHRIS, Associate Professor, Chemistry, 15 years of service, spring 2022
Title: New Synthetic Methods for Construction of Complex Organic Small Molecules and Natural Products
Professor Pigge will develop new approaches for the synthesis of biologically active heterocyclic compounds and explore new methods to harness the reactivity of heterocyclic ring systems in transition metal catalyzed reactions. Heterocyclic organic compounds (compounds that possess rings of carbon and at least one heteroatom such as nitrogen or oxygen) are essential components in over 70% of pharmaceuticals and agrochemicals. There is a critical need to develop general, more efficient, and economical synthetic routes to such ring systems, and Professor Pigge will investigate the use of novel reactive intermediates that can be generated from several types of heterocyclic substrates to achieve this goal. This work will broadly impact the areas of organic and medicinal chemistry by establishing new synthetic tactics that can be widely used in the biomedical sciences. Knowledge gained in this project will enhance Professor Pigge’s effectiveness as an educator at the undergraduate and graduate levels.
POWERS, THEODORE, Associate Professor, Anthropology, 6 years of service, spring 2022
Title: Decolonizing Austerity: Health, Economy, and Inequality in South Africa
What are the historical roots of austerity, or the premise that spending on social welfare should be cut in order to repay debts? What can a critical analysis of the intellectual history of austerity contribute to contemporary debates on health and inequality? During this PDA, Professor Powers will address these questions through a historical analysis of health, inequality, and austerity in South Africa. This research project builds on recent anthropological accounts regarding decolonization and will contribute to debates of austerity and inequality in disciplines including development studies, international relations, and economics. Professor Powers will conduct archival research in South Africa and maintain research affiliation with the University of Pretoria. The proposed research will directly benefit students by employing new analytical approaches and introducing novel research findings into classrooms and contribute to ongoing debates on the relationship between health, inequality, and resource allocation within the state of Iowa.

ROCHA, RENE R, Professor, Political Science, 14 years of service, fall 2021
Title: Trends in and Consequences of Interior Immigration Enforcement
This project draws on information from the Freedom of Information Act (FOIA) requests to document Immigration and Customs Enforcement (ICE) activity within the interior of the U.S. over the course of the Trump presidency. It relies on securing non-publicly available data to offer a comprehensive picture of ICE enforcement efforts across all counties in the U.S. This is a significant improvement over the currently available data on ICE activity, which is drawn from a single ICE program and has suffered from data quality issues since 2017. In addition to developing a comprehensive portrait of ICE activity, Professor Rocha will use this new data to validate or call into question the conclusions of previous scholarship and policy reports that rely on lower-quality data. Additionally, Prof. Rocha will tie ICE activity to outcomes within communities, such as the decision of immigrants to resettle in the U.S. This will help improve our understanding of how enforcement shapes the lives of immigrants in Iowa and across the country. Additionally, the project will improve his regularly taught course on immigration policy and politics.

RODRÍGUEZ-RODRÍGUEZ, ANA M, Associate Professor, Spanish and Portuguese, 12 years of service, fall 2021
Title: Re-Encountering Islam in the Philippines: Race and Religion at the Threshold of Spain's Modernity
Professor Rodríguez-Rodríguez will finish writing her next book, which deals with the Spanish presence in the Philippines between 1565 and 1898. This book focuses especially on the encounter with Islam in the southern islands of Mindanao and Sulu, exposing how this multicultural contact affected the construction of the Philippines, and of Asia, for consumption in Spain, and in Europe in general. This single-authored academic book will be published by a major University Press, giving the University of Iowa national and international visibility. In connection with this project, Professor Rodríguez-Rodríguez will develop research opportunities for undergraduate and graduate students through transcribing and translating archival materials that she has come in contact with during her research, creating a website where future students can access them. Given the important historical relationships between the U.S. and the Philippines (including the presence of numerous Iowans in the islands during the Spanish-American War and the Second World War), this study will also contribute to a better understanding of the origins of the American presence in the archipelago.
SANDERS, KATRINA M, Associate Professor, Education Policy & Leadership Studies, 21 years of service, fall 2021
Title: College of Education and Obermann Center Race Relations Institute
Professor Sanders will use her PDA to assess the summer 2021 College of Education Social Justice Institute pilot so that she may create an annual event where scholars and students utilize their research to collaborate on race, culture and diversity issues with Iowa teachers. As Iowa becomes more racially and culturally diverse, the project will identify issues Iowans deem necessary in their growth towards promoting more inclusive schools and communities. Prof. Sanders will also utilize this information in her undergraduate pre-service teacher large lecture diversity course, with graduate students seeking research ideas, and in her own research on the intersections of race relations and education. The project will also provide students an opportunity to help design sessions and topics for the institute, and to present research and projects on racial diversity issues. Her project will contribute to a more prosperous state for all and position the CoE and Iowa as leaders on race relations in Iowa and the Midwest. This project springs from her classes and current race related protests, and builds upon her research on American race relations, supported in part by The Spencer Foundation.

SCHWALM, LESLIE A, Professor, History, 29 years of service, fall 2021
Title: Making Race in Civil War America/The Iowa Colored Conventions Project
Professor Schwalm will focus on two projects during her PDA. She will complete her third monograph, Making Race in Civil War America. This book looks to the social and cultural history of medicine and science to help us better understand why wartime emancipation failed to more fully undermine American racism. Its central concern is how and why the conditions of civil war and the Union’s war effort increased, rather than reduced, northern white investments in the construction and elaboration of ideas about racial difference, using the tools and language of medical and scientific inquiry. The Union’s wartime medical and scientific investments went well beyond the organization and delivery of health care and the development of new techniques in surgery and treating injuries and disease; they also created specific and concrete opportunities to advance the ties between the making of race and the making of modern medicine and science. She will devote the second half of her award period to advancing work on the digital public history project, the Iowa Colored Conventions Project. Using archival research, she will create digitized biographies of convention participants.

SKIFF, FREDERICK N, Professor, Physics and Astronomy, 22 years of service, fall 2021
Title: Laser spectroscopic studies of plasma transport
Transport simply refers to how something of interest moves from one place to another. In ionized gasses (known as “plasma”), transport causes the escape of particles out of a region where they are normally trapped. An example of where plasma transport can have important effects is in the Van Allen Belts (particles trapped in regions around the earth). Escape of trapped particles from Van Allen Belts by a transport process can adversely affect cell phone communication networks and threaten the wellbeing of satellites and astronauts. There are many potential mechanisms that can influence plasma transport and we seek to understand (control/mitigate) these mechanisms well. Plasma transport study is hampered by the difficulty of making the necessary measurements. Professor Skiff proposes to develop new techniques for the study of plasma transport using laser-spectroscopy on a Swiss calcium ion particle-beam in a controlled laboratory experiment. Developing calcium ion laser-spectroscopy will open new opportunities for federally funded research at UI. Numerous new student research projects will be enabled, including using trapped calcium ions for quantum computing applications.
SONKA, MILAN, Professor, Electrical-Computer Engineering, 25 years of service, spring 2022
Title: Artificial Intelligence (AI) in Interdisciplinary Research
Linked with Professor Sonka's current role as the Iowa Initiative for Artificial Intelligence (IIAI) director, this PDA will strengthen the role of artificial intelligence (AI) and machine learning (ML) at the University of Iowa. The PDA will concentrate on 3 main goals contributing to the IIAI’s success and extramural funding: 1) study foundational new approaches and tools for AI/ML in diverse research areas, develop collaborations with global AI companies & world-leading research centers, and increase UI visibility at relevant funding agencies, 2) actively participate in AI/ML collaborative projects with a focus on Explainable AI, and 3) extend the role of AI/ML in UI’s portfolio of externally-funded research. The State of Iowa and society in general will benefit from fulfilling the above goals, solidifying the role of the UI as a strong research university in AI and nurturing the ground for increased levels of federally funded AI research at the UI with positive impact on Iowa’s economic development.

SRINIVASAN, PADMINI, Professor, Computer Science, 31 years of service, spring 2022
Title: Strengthening Offensive Text Detectors and Exploring Linguistic Style in Text
The proposed work for the PDA is in the subfield of text mining within computer science. Professor Srinivasan will work on four projects that represent two directions of research. Direction one is to strengthen machine learning models for offensive text detection. The projects are: 1) studying algorithmic bias in offensive text detectors and 2) studying adversarial attacks on offensive text detectors. The second direction of research that she will pursue is on exploring linguistic style in speech and writing. The projects are: 1) using language-derived style features to model mood and behavior and 2) designing generalized methods to automatically transform linguistic style of text. The first three projects are potentially of direct value to society. Five PhD students will be involved in this research. This research will result in specific assignments and projects in two courses taught at the University of Iowa: Web Mining and Health Data Analytics. Both courses are open to undergraduate and graduate students.

THOMAS, DOWNING A, Professor, French and Italian, 29 years of service, fall 2021
Title: Anchoring the Self: Judgment, Feeling, and Commonality in Early-Modern France
Professor Thomas proposes to complete a book-length study focused on aesthetic reflection during the early-modern period prior to Immanuel Kant—a time when aesthetics was not primarily about art (as it was after Kant), but was instead a field of rich and varied approaches to understanding the mechanisms behind our acts of judgment and the human capacities that are engaged in that process. Professor Thomas’s focus will be on selected works written in France and across the channel in England from the 1660s through the 1770s. Using a variety of literary platforms (theater, fiction, public debates, philosophical reflection), these writers explored connections and conflicts between sensation and judgment, reason and imagination, feeling and truth, and the self and others; and they developed models of personal and social engagement that continue to have value in today’s divisive world of polarization and identity politics. Professor Thomas plans to share the results of his research in undergraduate and graduate classes in the coming years.

VOSS, MICHELLE W, Associate Professor, Psychological and Brain Sciences, 8 years of service, fall 2021
Title: Targeting the brain to change physical activity behaviors: developing a health neuroscience approach
Professor Voss will extend the scope of her research and teaching towards developing a health neuroscience framework for addressing the problem of physical inactivity. She will read broadly and learn from local experts in related fields to further develop her theoretical knowledge of
historical perspectives to physical activity behavior change and her arguments for their extension with a health neuroscience perspective, and she will test her new theoretical ideas with data collected in her lab. This work is expected to result in at least two peer-reviewed publications and a new grant application to the NIH/NIA that develops new experimental interventions on the brain to increase physical activity among older adults. The knowledge and experience she gains during this award would prepare her to teach new classes at both undergraduate and graduate levels, which integrate theoretical perspectives and clinical applications in health psychology and neuroscience to better understand how to get people moving more and sitting less. Results from this research will benefit society by informing how to reverse trends of rising inactivity to better prevent age-related chronic diseases.

ZHOU, XUN, Associate Professor, Business Analytics, 6 years of service, half time for academic year

*Title*: Spatial Trajectory Data Mining for Urban Business Intelligence

The proposed PDA will develop novel data mining and machine learning techniques to analyze and understand the spatial trajectory data of food delivery couriers in mega-cities in China to improve business efficiency and fairness. With the development of location-based services and mobile-apps, food delivery has emerged as a popular mobile economy model. The unique data collected from couriers and orders present unique research opportunities for data-driven business. For the PDA, Professor Zhou will collaborate with researchers in leading e-commerce firms in China on two projects related to spatial trajectory data mining. The first project will develop data mining algorithms to learn the decision preferences from experienced couriers’ trajectory data to extract their knowledge. The second project will verify, quantify, and mitigate unfairness in order dispatching and customer service quality from data. Prof. Zhou expects the PDA to generate cutting-edge knowledge and publications for data mining and to inspire new business practices. It will also provide lecture examples and project topics for teaching at the undergraduate, professional, and graduate levels.

*  Will have met the 4-year requirement for a fiscal appointment prior to taking the assignment approved per SUI policy.
**  Will have met the 10-semester requirement for an academic appointment prior to taking the assignment approved per SUI policy.