

Contact: Diana Gonzalez

PROFESSIONAL DEVELOPMENT ASSIGNMENT REQUESTS FOR FY 2017

Action Requested: Consider approval of the requests by the Regent universities for professional development assignments for FY 2017.

Executive Summary: Each year, the Board of Regents is asked to approve faculty professional development assignments as specified in Iowa Code §262.9(14) and Board Policy §4.09. For FY 2017, the universities request approval of 100 faculty professional development assignments; this is a decrease of 10 proposed professional development assignment from the prior year (-9.1%). The FY 2017 request represents 2.0% of all faculty at the Regent universities. A brief description of each proposed assignment is available in Attachments A-C (pages 7-37). This report addresses the Board of Regents Strategic Plan priority for “educational excellence and impact” and “economic development and vitality.”

**NUMBER OF PDA RECIPIENTS AND PERCENT OF TOTAL FACULTY
FY 2013 – FY 2017**

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
SUI	64 (2.9%)	65 (2.9%)	68 (3.0%)	56 (2.4%)	53 (2.3%)
ISU	29 (1.7%)	45 (2.6%)	37 (2.0%)	37 (2.0%)	31 (1.6%)
UNI	18 (2.2%)	15 (1.8%)	19 (2.4%)	17 (2.1%)	16 (2.0%)
REGENT TOTAL	111 (2.3%)	125 (2.6%)	124 (2.5%)	110 (2.2%)	100 (2.0%)

Background:

◇ Institutional policies. Each university has academic policies that describe the process and requirements for professional development assignments and which guide the selection of faculty proposed for professional development assignments.

☑ **University of Iowa.** Full-time faculty members with 9-month appointments who completed a minimum of 10 semesters of full-time academic service are eligible for an initial one-semester professional development assignment. Flexible load assignments may be included in the 10 required semesters at the discretion of the college. Part-time faculty members with 9-month appointments become eligible for a professional development assignment at the level of their appointment upon completion of a minimum of 10 semesters of part-time service. Part-time faculty members are eligible for a ‘regular’ professional development assignment when their portions of service equal the minimum requirement of full-time service.

Twelve month faculty members who completed a minimum of four years of full-time academic service or the equivalent are eligible for the first professional development assignment of one semester; those who completed eight or 11 years of full-time academic service or the equivalent are eligible for a professional development assignment of up to two semesters or 12 months. To become eligible for a subsequent professional development assignment, faculty members with 9-month appointments must complete 10 semesters of full-time service; faculty members with 12-month 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 a professional development assignment. There is no restriction on length of service to qualify for a professional development assignment. However, priority may be given to tenured faculty over adjunct and non-tenured faculty and to persons who have not received a professional development assignment in the past five years.
- ☑ **University of Northern Iowa.** Policies and procedures relating to professional development assignments are defined in the United Faculty Master Agreement. Faculty members must be full-time and tenured at the time of application. A recipient of a professional development assignment is ineligible for a subsequent assignment during the three years following the assignment.
- ◇ Review process. The three universities report that a rigorous review process was conducted for each proposed professional development assignment. Faculty recipients were selected on the basis of peer review and recommendation at the department and college levels at each university and final approval by the provost. One of the criteria considered is the impact of the proposed professional development assignment.
- ◇ Proposed activities. Faculty members engage in a variety of productive activities during their professional development assignments. For example, faculty members have the opportunity to engage in intensive research, write scholarly books and articles, create new works of art and composition, present papers, work in industry, develop modeling systems, and develop grant proposals, software, course materials, and multimedia resources for their disciplines. Professional development assignments enrich the educational environment of the universities and are considered essential to the academic vitality of the universities. Educational excellence results from a vital faculty which actively pursues new developments in knowledge and teaching.
- ◇ Length of assignments. Professional development assignments are usually for one semester, although they may be granted for up to a year. For professional development assignments 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 are used to 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 their professional development assignment or to repay the costs associated with the professional development assignment if the faculty member does not return to the institution. Following their professional development assignments, faculty members are responsible for reporting the results of their assignments as specified by Board Policy §4.09E and their institutional guidelines.
- ◇ Average number requested. During the last five years, an average of 114 professional development assignments (PDAs) per year has been requested.

- ◇ Value of professional development assignments. The professional development assignments provide increased visibility and prominence of faculty and departments in research and scholarship; they also provide direct application of expanded knowledge to students, lowans, the nation, and the world. Furthermore, professional development assignments allow recipients to compete successfully for external grants which benefit not only the professors and their programs but also the universities and the state.
- ◇ Faculty replacement costs. Estimates of the replacement costs for faculty members who are on professional development assignment are provided on the table below.
 - ☑ At SUI, costs will be reduced for the recommended professional development assignments, 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, including reassignment or alternate scheduling of courses. Some PDA requests do not represent new costs because they are managed by the department through a reassignment of course load among current faculty. Salary savings generated from faculty members on assignment for a full year are used to offset the replacement costs for other faculty members. There are no research-related expenses for ISU faculty on professional development assignments.
 - ☑ At UNI, replacement costs are the responsibility of the college/department of the PDA recipient; no central funds are provided. In some cases, departments expect to increase class size or to decrease course offerings to cover the faculty members' reduced course load while on PDA. Some departments expect to hire adjunct faculty to be able to offer courses which students need to make academic progress in their program of study as necessary.

**BUDGETED REPLACEMENT COSTS
FY 2013 – FY 2017**

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
SUI	\$174,532	\$119,700	\$162,446	\$173,280	\$136,668
ISU	\$247,100 ¹	\$325,393 ²	\$131,433 ³	\$144,120 ⁴	\$145,386 ⁵
UNI	\$87,000	\$65,000	\$145,000	\$170,000	\$187,000
REGENT TOTAL	\$508,632	\$510,093	\$438,879	\$487,400	\$469,054

¹ The expected replacement costs are \$338,900. However, seven faculty requests are for a full academic year, which will generate \$91,800 in salary savings. Therefore, the net replacement cost is \$247,100.

² The expected replacement costs are \$551,750. However, five faculty requests are for a full academic year, which will generate \$226,357 in salary savings. Therefore, the net replacement cost is \$325,393.

³ The expected replacement costs are \$403,563. However seven faculty requests are for a full academic year, which will generate \$272,130 in salary savings. Therefore, the net replacement cost is \$131,433.

⁴ The expected replacement costs are \$384,000. However, eight faculty requests are for a full academic year, which will generate \$239,880 in salary savings. Therefore, the net replacement cost is \$144,120.

⁵ The expected replacement costs are \$351,740. However, eight faculty requests are for a full academic year, which will generate \$206,354 in salary savings. Therefore, the net replacement cost is \$145,386.

- ◇ Proposed professional development assignment recipients by gender.
 - ☑ There are 59 proposed professional development assignments for men; this represents 59.0% of the total proposed PDAs. Men represent 63.5% of the total number of eligible faculty.
 - ☑ There are 41 proposed professional development assignments for women; this represents 41.0% of the total proposed PDAs. Women represent 36.5% of the total number of eligible faculty.

- ◇ Proposed professional development assignment recipients by race/ethnicity.
 - ☑ There are 20 proposed professional development assignments for racial/ethnic minorities; this represents 20.0% of the total proposed PDAs. Racial/ethnic minorities represent 17.9% of the total number of eligible faculty.
 - ☑ There are 80 proposed professional development assignments for non-minorities; this represents 80.0% of the total proposed PDAs. Non-minorities represent 82.1% of the total number of eligible faculty.

**FY 2017 PROPOSED PDAs BY GENDER AND RACE/ETHNICITY
UNIVERSITY OF IOWA**

Race/Ethnicity	Total Number of Faculty			Total Number of Eligible Faculty			Number of Faculty Who Submitted an Application			Number of Faculty Proposed for Assignment		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Hispanic	48	37	85	32	26	58	3	2	5	3	1	4
Am. Indian/Alaska Native	2	3	5	2	2	4	0	0	0	0	0	0
Asian-Am.	179	72	251	122	28	150	3	3	6	3	2	5
Black/African Am.	28	23	51	18	15	33	0	1	1	0	0	0
Native Hawaiian/Pacific Islander	0	0	0	0	0	0	0	0	0	0	0	0
Two/more races	8	8	16	7	7	14	0	0	0	0	0	0
Total Minority	265	143	408	181	78	259	6	6	8	6	3	9
White	1,113	682	1,795	891	439	1,330	29	21	50	25	18	43
Unknown R/E	36	15	51	21	6	27	0	1	1	0	1	1
Nonres. Alien/Intl.	49	26	75	3	3	6	0	0	0	0	0	0
TOTAL	1,463	866	2,329	1,096	526	1,622	35	28	63	31	22	53

FY 2017 PROPOSED PDAs BY GENDER AND RACE/ETHNICITY
IOWA STATE UNIVERSITY

Race/Ethnicity	Total Number of Faculty			Total Number of Eligible Faculty			Number of Faculty Who Submitted an Application			Number of Faculty Proposed for Assignment		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Hispanic	33	25	58	31	24	55	0	1	1	0	1	1
Am. Indian/Alaska Native	3	1	4	3	1	4	0	0	0	0	0	0
Asian-Am.	198	72	270	197	66	263	13	2	15	5	2	7
Black/African Am.	26	19	45	25	19	44	0	0	0	0	0	0
Native Hawaiian/Pacific Islander	1	0	1	1	0	1	0	0	0	0	0	0
Two/more races	4	4	8	4	4	8	0	0	0	0	0	0
Total Minority	265	121	386	261	114	375	13	3	16	5	3	8
White	877	626	1,503	825	571	1,396	19	16	35	13	10	23
Unknown R/E	0	0	0	0	0	0	0	0	0	0	0	0
Nonres. Alien/Intl.	49	37	86	49	34	83	0	0	0	0	0	0
TOTAL	1,191	784	1,975	1,135	719	1,854	32	19	51	18	13	31

FY 2017 PROPOSED PDAs BY GENDER AND RACE/ETHNICITY
UNIVERSITY OF NORTHERN IOWA

Race/Ethnicity	Total Number of Faculty			Total Number of Eligible Faculty			Number of Faculty Who Submitted an Application			Number of Faculty Proposed for Assignment		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Hispanic	10	8	18	7	5	12	0	0	0	0	0	0
Am. Indian/Alaska Native	0	1	1	0	1	1	0	1	1	0	1	1
Asian-Am.	27	27	54	23	15	38	1	1	2	0	1	1
Black/African Am.	8	11	19	6	4	10	2	0	2	1	0	1
Native Hawaiian/Pacific Islander	1	0	1	1	0	1	0	0	0	0	0	0
Two/more races	2	5	7	1	1	2	0	0	0	0	0	0
Total Minority	48	52	100	38	26	64	3	2	5	1	2	3
White	312	305	617	204	151	355	11	7	18	9	4	13
Unknown R/E	0	0	0	0	0	0	0	0	0	0	0	0
Nonres. Alien/Intl.	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	360	357	717	242	177	419	14	9	23	10	6	16

FY 2017 PROPOSED PDAs BY GENDER AND RACE/ETHNICITY
REGENT TOTAL

Race/Ethnicity	Total Number of Faculty			Total Number of Eligible Faculty			Number of Faculty Who Submitted an Application			Number of Faculty Proposed for Assignment		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Hispanic	91	70	161	70	55	125	3	3	6	3	2	5
Am. Indian/Alaska Native	5	5	10	5	4	9	0	1	1	0	1	1
Asian-Am.	404	171	575	342	109	451	17	6	23	8	5	13
Black/African Am.	62	53	115	49	38	87	2	1	3	1	0	1
Native Hawaiian/Pacific Islander	2	0	2	2	0	2	0	0	0	0	0	0
Two/more races	14	17	31	12	12	24	0	0	0	0	0	0
Total Minority	578	316	894	480	218	698	22	11	33	12	8	20
White	2,302	1,613	3,915	1,920	1,161	3,081	59	44	103	47	32	79
Unknown R/E	36	15	51	21	6	27	0	1	1	0	1	1
Nonres. Alien/Intl.	98	63	161	52	37	89	0	0	0	0	0	0
TOTAL	3,014	2,007	5,021	2,473	1,422	3,895	81	56	137	59	41	100

- ❖ Average length of service. The average length of service for the proposed professional development assignment recipients is 14.7 years at SUJ; 11.1 years at ISU; and 14.8 years at UNI.
- ❖ Proposed professional development assignments by rank. There are 43 (43.0%) proposed professional development assignments for professors, 56 (56.0%) for associate professors, and one (1.0%) for an assistant professor (pending promotion to associate professor with tenure).
- ❖ Schedule of professional development assignments. Forty-three (43.0%) of the proposed professional development assignments will be taken during the Fall semester; 44 (44.0%) will be taken during the Spring semester; and 13 (13.0%) will be taken during both Fall and Spring semesters.
- ❖ Goals of professional development assignments. Each faculty member has identified specific goals which will guide the work of the assignment.

UNIVERSITY OF IOWA (*denotes received prior professional development assignment)

ADAMEK, MARY, PROFESSOR, MUSIC, 19 YEARS OF SERVICE, SPRING SEMESTER

Title: Music in Special Education, by Adamek and Darrow, 3rd Edition Textbook Revision
Professor Adamek will work on the 3rd edition of her previously co-authored text, *Music in Special Education*, published by the American Music Therapy Association in 2010. Updates will include an added section focused on working with older students with disabilities in music settings. She will update current chapters with references to recent research, practice and current laws affecting special education. Music education and music therapy students at UI will use this text as a foundation to their work in schools with students with disabilities. This text (2010) is the leading text on this topic and is used in university music programs throughout the U.S. Music educators (including students at UI), music therapists, and students with disabilities and their families benefit when best practices and current research are the foundation of special music education experiences in schools. During this PDA, Professor Adamek will visit exemplary special education, special music education and music therapy programs in the country to provide an accurate picture of current best practices. She will also devote the time to writing the new chapters and updating chapters from the 2nd edition.

BARBUZZA, ISABEL, ASSOCIATE PROFESSOR, ART AND ART HISTORY, 18 YEARS OF SERVICE, SPRING SEMESTER

Title: LandEscapes-Bolivia

Professor Barbuza's Spring 2017 PDA proposal, LandEscapes-Bolivia, will conclude her research on the social and environmental impact from lithium extraction and mining in Argentina, Chile, and Bolivia. These countries cover a vast area with more than 80% of the world's known lithium reserves and, as we look for alternatives to fossil fuels, lithium is considered a source that will power the electric car and batteries for hand-held devices. Mining lithium requires an extensive extraction operation that would not only destroy the landscape but also jeopardize the water in the region. Research has already been performed in Argentina and Chile. The proposed research in Bolivia will complete the remaining component. Based on her research, she will produce six large photographs, an exhibit composed of mining tools cast in salt, crystallized textiles, and text. The work will be exhibited in Cedar Rapids and it will be proposed at the Figge Museum in Davenport and El Museo del Barrio in Paraguay. This research continues to enrich the "Art at the Edge of the Landfill" course and it will provide Iowans with information about the environmental consequences of consumer electronics.

BELLI, MERIAM N., ASSOCIATE PROFESSOR, HISTORY, 7 YEARS OF SERVICE, FALL SEMESTER

Title: Death in Transit

Professor Belli will develop a section of her research that is concerned with the international funerary industry and with the politics of burial. She will explore funerary industries and burial societies, conduct interviews, and gather data in France, Israel, and Tunisia. She will gather materials for two chapters of her new book project that discuss eschatological beliefs and mortuary practices. One of these chapters investigates the international funerary trade; the other discusses the politics of citizenship through Jewish and Muslim burials. Belli will use her research to teach European-Middle Eastern relations; mobility and immigration; political loyalties and cultural identity in Europe and the Middle East; and questions of inclusion/exclusion of religious minorities, which are of great pedagogical importance. Iowans will benefit from Belli's work at bridging cultures, as she stresses global connections among societies and religions, connecting past and present.

BOOS, FLORENCE, PROFESSOR, ENGLISH, 42 YEARS OF SERVICE, SPRING SEMESTER

Title: Completion of Book, *The Hard Way Up: Memoirs of Victorian Working-Class Women*
During her developmental assignment, Professor Boos will complete her monograph, *The Hard Way Up: Memoirs of Victorian Working-Class Women*. The first extended study of life-writings by mid- and late-nineteenth century women in ordinary circumstances, her book will supplement prior studies of Victorian male life-writings and the autobiographies of more affluent women. During the period of the grant she will conduct research in manuscript collections in northern England and Scotland and revise and extend her drafts of chapters on self-published narratives, oral and co-authored accounts, memoirs by servants and factory women, and autobiographies by women teachers and political activists. Palgrave Macmillan has solicited her book manuscript for their 19th Century Lives and Letters series, and she plans to submit the *Hard Way Up* to them at the end of her developmental award. Her research into nineteenth-century life narratives is crucial to her teaching of Victorian literature and culture at both the undergraduate and graduate levels, and helps enable the Department of English to maintain its current highly respected Victorian program.

BUREK PIERCE, JENNIFER, ASSOCIATE PROFESSOR, LIBRARY & INFORMATION SCIENCE, 10 YEARS OF SERVICE, FALL SEMESTER

Title: *Recording Childhood: Documenting Children's Development in the U.S. from the Twentieth Century Forward*

Parents record their children's lives, beginning with their earliest moments. They capture details ranging from sex and weight to footprints and first words. Beginning in the early twentieth century, baby books collected these elements of children's growth; now, they may also be shared via social media. Professor Pierce's study examines how documenting developmental milestones became a cultural norm, beginning with international doctors' interest in these details as a way of assessing babies' health, to their later use as personal history in the U.S. This research, the foundation for a scholarly book, provides perspective on parenting practices and well-baby checks that are nearly universal in Iowa and throughout the nation. As UI students become parents, teachers, and librarians, the information from this historical and cultural study fosters better understanding of the information they collect and create about the children in their care.

CATES, DIANA F., PROFESSOR, RELIGIOUS STUDIES, 25 YEARS OF SERVICE, SPRING SEMESTER

Title: *Ethics of Love and Hatred*

Professor Cates will complete two chapters of a book, *Ethics of Love and Hatred*. This work of ethics and religious studies will address the problem of violence by analyzing the underlying problem of hatred in terms of the theories of virtue, vice, and emotion developed by medieval theologian Thomas Aquinas. The book will delineate the forms, causes, dynamics, effects, and moral significance of hatred, construed in light of its contrary, love. It will advance the multi-disciplinary study of emotion, revealing the influence that religious ideas can have on the formation and alteration of morally problematic emotional states. It will educate academic and public audiences about the responsibility of persons to manage their inclinations to hate what they perceive to be evil. The work accomplished by Professor Cates will enhance two existing undergraduate courses, namely, *Sexual Ethics and Longing for Freedom*, both of which treat hatred as a cause of oppression, and it will aid her in developing a new course, *Love: Journey of an Idea through Time*.

CHENG, CHI-LIEN, ASSOCIATE PROFESSOR, BIOLOGY, 25 YEARS OF SERVICE, FALL SEMESTER

Title: Genes Control Asexual Reproduction in Nature

Professor Cheng's laboratory has identified genes that control asexual reproduction in the model fern *Ceratopteris*. During the PDA, she will examine whether these genes play a role in obligated asexual ferns in nature. She will spend a few weeks at The New York Botanical Garden, specifically in Dr. Barbara Ambrose's laboratory, to obtain these specific fern species and learn sectioned in situ hybridization to assess the expression of these genes during natural occurring asexual reproduction. She will then grow these ferns and conduct the experiments in her own laboratory at the UI. She expects to find these genes, at least some of them, expressing in these ferns during asexual reproduction. The award will benefit teaching as she plans to incorporate fern reproduction in a laboratory course. Asexual reproduction, once harnessed, can be extremely valuable for commercial seed production, such as corn. The knowledge gained in fern will shed light on asexual seed production in crop plants.

CHOI, KYUNG K., PROFESSOR, MECHANICAL AND INDUSTRIAL ENGINEERING, 31 YEARS OF SERVICE, FALL SEMESTER

Title: Conservative Reliability-Based Design Under Limited Test Data for Random Input Variables and Variable Output Performances

Due to high cost and time constraints in industry and defense areas, very often only a limited amount of uncertainty input data are available for the input probabilistic model and reliability analysis; and test data from the product are available for validation of a simulation model. During the PDA, basic research will be carried out to develop computational methods for estimation of conservativeness levels for reliability analysis, design sensitivity analyses, conservative model validation, and conservative prediction of the probability of failure even with insufficient uncertainty input data and product test data. The proposed methods will allow design engineers to obtain conservative reliable optimum designs using the simulation-based methods developed at the University of Iowa during last 15 years with over \$5M in external funding, even with insufficient input uncertainty data and product test data. Experience gained from this collaborative research and education will greatly benefit our graduate research and education.

CIOCHON, RUSSELL L., PROFESSOR, ANTHROPOLOGY, 28 YEARS OF SERVICE, SPRING SEMESTER

Title: Early Hominins and Pleistocene Climate in Southern Wallacea
Professor Ciochon's field research will focus on understanding early hominin biogeography and habitats in Island Southeast Asia (ISEA) with a focus on Southern Wallacea. This project will evaluate stratigraphy and geochemistry at eight sites of known paleontological and/or archaeological significance on two Southern Wallacea islands, Timor and Sumba, Indonesia. Pleistocene climate cycling resulted in ISEA becoming ecologically dynamic. *Homo floresiensis* (the Hobbit) from Flores, Indonesia, is the unique result of insular evolution. The islands of Timor and Sumba neighbor Flores and, depending on when the islands were occupied, could result in similar paleoanthropological finds. These islands represent the southeastern extreme of early hominin occupation in ISEA. Even at the lowest Pleistocene sea-levels, these islands were separated from Flores. Professor Ciochon would like to determine the timing and nature of the habitats that drew and/or sustained early hominin populations here. This project is expected to result in several journal articles, a grant proposal to the National Science Foundation, and new material for Professor Ciochon's undergraduate and graduate courses.

COHEN, MARY L., ASSOCIATE PROFESSOR, TEACHING AND LEARNING, 8 YEARS OF SERVICE, FALL SEMESTER

Title: Silenced Voices: Music-Making in U.S. Prisons

The purpose of this requested PDA is to complete a book entitled Silenced Voices: Music-Making in U.S. Prisons. Professor Cohen is lead author on this project and the co-author is Stuart Paul Duncan. Cohen's project has the potential to benefit the state of Iowa and society by providing a valuable resource for prison educators, musicians, and people connected to the U.S. prison system—those who are incarcerated, their family members, prison staff and administrators, and broader society. This resource will describe applications of restorative justice, transformative justice, and desistance theories using music education. Students interested in prison education, music education, community music, and prison reform can reference the research in the book and use its guidelines for establishing new educational programs in prisons.

COOHEY, CAROL A., PROFESSOR, SOCIAL WORK, 19 YEARS OF SERVICE, SPRING SEMESTER

Title: The Relation between Field Supervision, Self-Efficacy and Preparedness for Social Work Practice

Bandura defines self-efficacy as the belief that one is able to influence events in one's lives. Effective social work requires a belief that one can make a difference. Yet, little has been written about how students develop work self-efficacy and what role field instructors play in students' perceived self-efficacy and preparedness for practice. The purpose of the PDA is to validate a scale that measures field instructor supervisory behaviors, model whether these behaviors are related to students' self-efficacy, and use this information to select and train field instructors. Professor Coohey will receive training in advanced statistical analysis; write manuscripts for publication; develop a workshop for field instructors; submit conference abstracts; and distribute the findings to Iowa's 12 schools of social work. Because the UI graduates a substantial proportion of Iowa's social workers, we have an opportunity to impact the quality of social services in Iowa. Our students spend about 80% of their time in practica. Therefore, it is crucial that we place our students with field instructors who can help them become effective social workers.

*** CWIERTNY, DAVID M., ASSOCIATE PROFESSOR, CIVIL-ENVIRONMENTAL ENGINEERING, 4 YEARS OF SERVICE, HALF TIME FOR ONE YEAR**

Title: Translating Water Research into Sustainable Policy through the AAAS Science & Technology Policy Fellowship Program

For this PDA, Professor Cwiertny will participate in the American Association for the Advancement of Science and Technology Policy (AAAST&P) Fellowship Program. Through this prestigious program, Professor Cwiertny will be placed for one year (8/16-7/17) either in a federal agency focused on environmental policy (e.g., EPA) or on Capitol Hill (e.g., Congressional science advisory committees) to assist with policy development. This experience will help Professor Cwiertny better understand how fundamental discoveries in his laboratory can be translated into sound policy that benefits the citizens and resources of the United States. Upon completion, Professor Cwiertny, with expertise in water sustainability, will use his PDA to enable future research, teaching and service efforts at the UI. As Director of Environmental Policy Research at the UI Public Policy Center, Professor Cwiertny will develop educational and public engagement initiatives at the interface of engineering, science, policy and law. His long-term research vision is to use his PDA experience to catalyze a center-level proposal aimed on reshaping U.S. water policy to address looming resource challenges.

DE LA PENA, GEORGE R., ASSOCIATE PROFESSOR, DANCE, 10 YEARS OF SERVICE, FALL SEMESTER

Title: Competition Documentary

Professor De la Pena plans to conduct research on the physical, psychological, emotional, and cognitive effects of concentrated dance training for competitions. Adolescents aged 12-22 years will be the subjects of this hour-long documentary. An expert in ballet, film, and performing, De la Pena continues his documentary film production in partnership with a PBS affiliate, WFYI. He will investigate, write, produce, direct and edit Stage & Development (working title). He will conduct interviews with competitors, judges, child psychologists, developmental psychologists, parents, former dance stars, choreographers, experts in sports medicine, as well as competition coaches. Studio practice with these coaches and young competitors will be featured. De la Pena plans to share this work in a national broadcast and with UI students, especially those interested in careers as dance teachers in Iowa. He is currently developing a Certificate in Teaching in collaboration with the Department of Psychology and Brain Sciences, and the College of Education. He will use this research to develop a course in teaching best practices for adolescent dancers who are focused on competition and excellence.

DUERLINGER, JAMES P., PROFESSOR, PHILOSOPHY, 44 YEARS OF SERVICE, FALL SEMESTER

Title: Shantaraksita and Kamalasila on the Refutation of the Existence of a Soul

During this PDA, Professor Duerlinger will complete the third volume of a series of books in which he translates and comments on Indian Buddhist works in which attempts are made to refute the thesis that persons possess souls. This volume will be a translation of and commentary on that part of the Sanskrit work, Compendium of Reality, composed by Shantaraksita, along with Kamalasila's Sanskrit commentary on this work, in which refutations are presented of other Indian philosophers' claims and arguments for the claims, that we possess souls. These works will enhance future undergraduate and graduate courses in which Professor Duerlinger teaches.

EICHINGER, WILLIAM E., PROFESSOR, CIVIL-ENVIRONMENTAL ENGINEERING, 18 YEARS OF SERVICE, SPRING SEMESTER

Title: Bora Wind Study in Slovenia

Professor Eichinger has applied for a Fulbright Scholarship for the spring of 2017 to study the Bora wind in Slovenia. The Bora wind is a high velocity (> 120 mph) wind that is responsible for a great deal of damage to buildings, crops and transportation. It is poorly understood, in part because of the special topographical conditions that cause it. The research is in partnership with researchers at the University of Nova Gorica. Both groups have recognized lidar (laser radar) labs, have worked together previously, and are researching ways to measure winds aloft and winds moving at Bora speeds. Research will involve graduate students from both institutions and will involve the exchange of students. Historically, this exchange has benefited both institutions both in the development of students, but also in the development of research equipment and analysis methods. Professor Eichinger will also teach while in Slovenia. Understanding the Bora wind and, in particular, being able to predict the occurrence is of great value to countries in the region because of its destructive nature. The weather service in Slovenia is participating in the research.

ENLOE, JAMES G., PROFESSOR, ANTHROPOLOGY, 25 YEARS OF SERVICE, FALL SEMESTER

Title: Late Pleistocene Adaptations: the Magdalenians of Verberie

The archaeological site of Verberie, excavated by Professor Enloe, was repeatedly occupied by reindeer hunters at the end of the Ice Age, when great changes in flora and fauna necessitated changes in human adaptation. Human populations remained in place while changing their way of life, shifting from exclusive hunting of reindeer to a dominance of horse as prey. Professor Enloe will analyze animal bones from successive occupation levels at Verberie, examining patterns of carcass exploitation, hunting seasonality, technology and social organization to explore the nature of terminal Pleistocene cultural evolution. In collaboration with Dr. Audouze, Professor Enloe will produce a monograph on the late Ice Age occupations at Verberie. The results of this research constitute an essential element of courses on human evolution. The archaeological methods developed at Verberie are an integral part of the current UI archaeological field school, contributing to undergraduate education and training for professional archaeology jobs. Study of climate change at the end of the Ice Age gives us a valuable case study for human adaptive change to dynamic environmental situations.

ESTRADA HERNANDEZ, NOEL, ASSOCIATE PROFESSOR, REHABILITATION & COUNSELOR ED, 9 YEARS OF SERVICE, SPRING SEMESTER

Title: Validation of Participatory Ethics in Counseling

The ethical decision-making process in counseling traditionally has been essentially "owned" by the professional counselor who is charged with the ultimate responsibility for conducting the process that will be utilized to arrive at an ethical decision. However, this process does not provide any mechanism for inclusion of the client as a significant co-participant of the ethical decision-making process. Expanding on the Participatory Ethics work done by Prilleltensky, et al. in 1996, this research agenda is set to validate a model of Participatory Ethics. This research agenda has two stages. In stage 1, Certified Rehabilitation Counselors provided their answers to the Participatory Ethics Scale. This section of the study will focus on the psychometric aspects of the model. In stage 2, Dr. Estrada-Hernandez will explore the applicability and usability of this model from the consumer perspective with emphasis on consumers' philosophical and practical perceptions related to their involvement in the solution of ethical dilemmas. This project is expected to result in several journal articles and infusion of materials into RCE ethics courses, at both MA and PhD levels.

FIGEL, JENNIFER, ASSOCIATE PROFESSOR, CHEMICAL & BIOCHEMICAL ENGINEERING, 9 YEARS OF SERVICE, FALL SEMESTER

Title: Advanced Inhalation Therapies For the Treatment of Bacterial Infections in the Lungs: Moving From the Bench Toward the Clinic

The PDA will allow Professor Fiegel to expand the scope of her research program in the development of new treatments for bacterial infections. Lung infections caused by bacteria remain a major cause of morbidity and mortality across the globe. While aggressive therapies lessen some of the most severe symptoms, current treatments often do not completely eradicate the bacteria leading to long-lasting infections. Professor Fiegel will engage in laboratory training to assess the effectiveness and safety of inhalation therapies designed to destroy bacteria in the lungs. The results will provide potential new inhalable approaches to treat lung infections, which would improve the health of affected Iowans. New knowledge gained during the PDA will be shared with students at the University of Iowa through courses and laboratory research opportunities, and will lead to scientific publications and new applications for funding.

FILIOS, DENISE K., ASSOCIATE PROFESSOR, SPANISH AND PORTUGUESE, 16 YEARS OF SERVICE, SPRING SEMESTER

Title: Conquering Heroes: Memories of 711 in early Islamic Historiography

Professor Filios will complete a book about the social functions of stories about the conquest of Iberia (al-Andalus, or Muslim Spain, 711-1492) as transmitted in ninth- and tenth-century Arabic historical writing. While such stories purport to be reliable accounts of past events orally transmitted verbatim through a chain of authorities, in fact they were continually adjusted to suit the needs of each new generation. In this way, different communities developed distinct memories of the past that helped differentiate themselves from other groups. This project applies literary and cultural theories of memory, performance, and post-colonial power relations to early Islamic historiography, valuing the aesthetic qualities of such writing. Through this work Professor Filios will shed new light on the relationship between Arabic and European traditions and bring to Iowa expertise in the complexities of Christian and Islamic contact that she will share in her scholarship and teaching.

FOLEY NICPON, MEGAN, ASSOCIATE PROFESSOR, PSYCHOLOGICAL AND QUANTITATIVE FOUNDATIONS, 7 YEARS OF SERVICE, SPRING SEMESTER

Title: Talent and Life-Skills Development for High Ability Students with Disabilities

Professor Foley Nicpon proposes a two-part project for her PDA. First, she will develop a curriculum for working with high ability adolescents with disabilities, such as autism spectrum disorder, ADHD, and learning difficulties. This curriculum will cover the research-based needs of this population, including improving social skills, conceptualizing identity (what does it mean to be both “talented” but also have a disability?), strengths identification and implementation, learning organization and time management, increasing academic self-efficacy, and exploring career possibilities. This curriculum will be designed for teachers, psychologists, counselors, and other mental health professionals. Second, Professor Foley Nicpon will write a competitive grant to the Institute of Education Sciences to test the impact of the curriculum with high ability adolescents with disabilities state-wide. This program benefits students at the University of Iowa who will be trained in delivering the curriculum and will benefit the State of Iowa by providing empirically-based materials for students who now have no intervention strategies specifically tailored to their needs.

FREEMAN, JOHN H., PROFESSOR, PSYCHOLOGY, 17 YEARS OF SERVICE, FALL SEMESTER

Title: Optogenetic Analysis of the Neural Circuits Underlying Learning

Professor Freeman’s project will be to develop methods in optogenetics to examine the neural mechanisms underlying learning. Optogenetics is a cutting-edge molecular neuroscience method for manipulating the function of neural pathways in the brain using light. Viral vectors will be used in rats to cause neurons in the brain to generate light sensitive molecules (opsins) that are associated with cellular mechanisms for activating or inhibiting neuronal membranes. Light can then be used to activate or inhibit specific neural pathways. Prof. Freeman will obtain training in optogenetics and then use it in experiments designed to examine the neural circuits underlying learning in rats. The proposed project will help to elucidate the fundamental nature of learning and provide preliminary data for new funding opportunities. Graduate and undergraduate students will participate in this project and thereby receive valuable research training. The results of this project will also add to the content of several of Professor Freeman’s courses.

FRIESTAD, GREGORY K., ASSOCIATE PROFESSOR, CHEMISTRY, 10 YEARS OF SERVICE, FALL SEMESTER

Title: Developing the Interface of Synthesis and Medicinal Chemistry

Professor Friestad will build collaborative aspects between synthetic chemistry and medicine, and complete the development of new instructional laboratory textbook. An emerging collaborative research effort between Professor Friestad and Professor Andrew Pieper (UI Psychiatry) is poised to capitalize on discoveries of new compounds with potential for treatment of neuropsychiatric disorders. Ongoing synthetic work on tetrafabricin, a natural product that inhibits platelet aggregation and blood clotting, has reached a point where a collaborative biological evaluation of new compounds is now needed. The proposed PDA will strengthen the potential for attracting major external funding in these areas, and provide opportunities for hands-on experiences of chemistry graduate students in biomedical collaboration. Professor Friestad's curriculum development brings sustainability and biological perspectives to the organic chemistry instructional laboratories, and his new laboratory textbook has been in use at the UI for several semesters, with ongoing updates. A PDA allowing publication and distribution beyond the UI will broadly impact laboratory instruction in organic chemistry.

GLASS, LOREN D., PROFESSOR, ENGLISH, 11 YEARS OF SERVICE, FALL SEMESTER

Title: Mapping the Workshop

Professor Glass will complete work on a Digital Humanities Project entitled "Mapping the Workshop," which he began in Fall 2015. Working in collaboration with a staff librarian in the Digital Scholarship and Publishing Studio (DSPS), an ABD English graduate student of postwar literature and digital culture, and an undergraduate research assistant, he will participate in and oversee the collection and input of data related to graduates of the Iowa Writers' Workshop from its founding to the present day. His team will then develop analytical and visualization tools for mapping the social and professional networks of the Workshop. The completed project will function as a research tool for scholars of creative writing and postwar literature.

HAZELTINE, RICHARD E., PROFESSOR, PSYCHOLOGY, 12 YEARS OF SERVICE, SPRING SEMESTER

Title: How Does the Brain Represent Tasks to Control Behavior?

A hallmark of human behavior is flexibility. Humans can be given a novel set of instructions and perform them with few or no errors – even without feedback or external reward. Our ability to behave flexibly is often attributed to control processes that configure mental operations to match the current task demands. Unfortunately, theories of control are often vague and fail to specify the information included in the task-relevant representations. Professor Hazeltine will attempt to address these limitations by investigating how task structures provide a framework to guide and control voluntary behavior. He will develop experimental tasks to assess the effects of task representations on widely studied behavioral phenomena and determine how to adapt these procedures so they can be used in neuroimaging studies. This project will engage undergraduate researchers working in Professor Hazeltine's laboratory and inform his graduate seminar on cognitive control.

HOWES, GREGORY G., ASSOCIATE PROFESSOR, PHYSICS AND ASTRONOMY, 7 YEARS OF SERVICE, SPRING SEMESTER

Title: Experiments on Solar Wind Physics and Popular Book Explaining Space Weather

Professor Howes will initiate two projects: (1) national leadership of a campaign on The Physics of the Solar Wind at the UCLA Basic Plasma Science Facility, a national experimental user facility; and (2) writing a popular science book on Space Weather. The expected results of this

PDA are: (1) dozens of peer-reviewed publications and invited presentations from the solar wind experimental campaign; and (2) outreach to the general public to educate them on the science and potential impact of space weather and providing inspiration to the next generation of scientists and engineers. Polished content on space weather can contribute significantly to both large introductory physics courses as well as specialized graduate-level physics courses at the University of Iowa.

KAWAMURO, KEIKO, ASSOCIATE PROFESSOR, MATHEMATICS, 6 YEARS OF SERVICE, SPRING SEMESTER

Title: Applications of Open Book Foliations

Professor Kawamuro will investigate braids and contact structures on arbitrary 3-dimensional spaces using open book foliations. She will try to detect which tight contact structures are universally tight. This research will contribute to the classification of tight contact structures, which is one of the main problems in low-dimensional topology. This PDA will benefit math graduate students, especially the three students Professor Kawamuro is currently advising. She will spend more time with students for discussions and provide interesting problems to pursue toward their Ph.D. degrees. She also intends to make, in collaboration with an artist, a sculpture of a contact structure with some knots sitting on the structure in some public space. This would be of educational benefit, especially for children in the State of Iowa.

****LEONARD, JULIA A., ASSOCIATE PROFESSOR, INTERDISCIPLINARY PROGRAMS, 3 YEARS OF SERVICE, FALL SEMESTER**

Title: Erosion: Artist Bookworks

Professor Leonard will research and complete two artist books, a contemporary artistic genre that uses the book form as a means for artistic production. The work is experimental, integrating traditional and current print processes to create pieces that examine our natural and built environments, and concepts of 'place' that impact how we interact with both. The PDA will be used to conduct research on evolving innovations in print technologies, to travel for research, and to complete the writing. The books will be produced as unique artist books and as high-quality digitally produced editions intended for wider distribution and accessibility through bookstores, libraries, and other community settings. The use of new print technologies and means of output will benefit students of fine art, graphic arts, and book design, preparing them for work in publishing, technology, and design arenas. The artwork will be exhibited at art book fairs and in gallery exhibitions in Iowa and nationally, providing exposure for the UI, and enhancing the already strong reputation the UI Center for the Book holds in the field of book arts and book studies.

LEVINE, MARK A., ASSOCIATE PROFESSOR, CREATIVE WRITING, 16 YEARS OF SERVICE, HALF TIME FOR ONE YEAR

Title: "Endangered": A Book of Poems

Professor Levine will undertake writing his fifth book of poems, a work prospectively entitled "Endangered." He will engage with the resources and traditions of lyric poetry in an effort to address the contemporary crisis of "endangerment" in relevant, provocative and artful ways. Professor Levine's work will approach endangerment on a variety of levels: ecological, geographical, cultural, linguistic, and artistic. The overriding effort of this work is to examine, by poetic means, the competition between postmodernity and the ethical, moral and aesthetic values that underlie the construct of the "human." The project will attempt to restore voice and presence to endangered entities, rather than to polemicize. Professor Levine hopes ultimately to assert the viability, and fragile persistence, of imaginative practices and of the medium of poetry itself. His work will attempt to broaden the scope of contemporary poetics, and will continue to

inform his development of courses and his instructional practices in training emerging poets at the Iowa Writers' Workshop.

MANAK, JOHN R., ASSOCIATE PROFESSOR, BIOLOGY, 7 YEARS OF SERVICE, SPRING SEMESTER

Title: From Developing a Course to Expanding My Scientific Expertise: Studies in Human Disease and Neuroscience.

The purpose of this PDA for Professor Manak is two-fold: First, to develop a new course on the genetics of human disease, and, second, to develop a high-level understanding of neuroscience. For the first activity, Dr. Manak will put together a course looking at various genetic diseases that have afflicted notable people in history (e.g., Abraham Lincoln, Michael J. Fox). The class seeks to attract a wide range of undergraduate students; given that most of us are affected by genetic disease either personally or within our families, the idea is to place a “face” on genetic disease and make it less intimidating to study. The second activity will seek to enrich Professor Manak’s understanding of neuroscience through intensive literature research as well as visits to colleagues with neurobiology expertise. Professor Manak’s primary expertise is in genomics, and he has recently widened his research interests to include neurobiology. He seeks to enhance his expertise in neuroscience as a whole. This will directly translate to innovative research in neurological disease, so that it ultimately may benefit society, and inform his teaching.

MARGULIS, CLAUDIO J., PROFESSOR, CHEMISTRY, 12 YEARS OF SERVICE, SPRING SEMESTER

Title: Ionic Liquids, Structure and Dynamics

Professor Margulis will take advantage of this PDA to further his research on novel Room-Temperature Ionic Liquids. He plans to spend time at the UI and likely also abroad. Research started during the previous PDA by Margulis resulted in several top-ranked publications. Subsequent grant funding has furthered the research career of graduate students, undergraduate students and postdoctoral fellows at the UI. Ionic Liquids are most interesting systems because they are salts (like sodium chloride) but as opposed to most conventional salts which are solid, these are liquid at room temperature. They find applications in such varied areas as biomass processing, energy applications such as batteries and capacitors, and green chemistry. Professor Margulis will look at these systems from a theoretical and computational perspective. He is particularly interested in understanding the structure of these systems as derived from X-ray scattering experiments as it relates to anomalous diffusion of probes dissolved in them. This PDA will allow an opportunity to publish our findings as well as explore new research directions.

MCGREGOR, KARLA K., PROFESSOR, COMMUNICATION SCIENCES & DISORDERS, 10 YEARS OF SERVICE, SPRING SEMESTER

Title: Children With Specific Language Impairment in U.S. Public Schools

During the proposed PDA, Professor McGregor will design a nation-wide study of children with specific language impairment (SLI) in public schools and prepare a grant proposal to secure funds for the study. SLI is a highly-prevalent, life-long condition that impairs social and academic functions yet it is under-identified and treated in the U.S. The primary goals of the project are to establish the prevalence of SLI in U.S. public schools and to determine how identification and treatment vary with severity, presenting characteristics, and factors such as age, gender, and location. The expected outcome is external funding to support this large-scale, nationwide project. Because Professor McGregor teaches courses and mentors research students in the areas of speech-language pathology and scientific writing, her students stand to

benefit from both the content and the process that their professor will experience. Because the prevalence of SLI in Iowa has been estimated to be 7%, a better understanding of the nature of SLI and the barriers to its identification will benefit a substantial number of Iowa's children and families.

MCLEESE, DONALD G., ASSOCIATE PROFESSOR, JOURNALISM & MASS COMMUNICATION, 12 YEARS OF SERVICE, FALL SEMESTER

Title: Trudging Toward Serenity: A Memoir of Recovery From High-Functioning Alcoholism.

Professor McLeese will write a memoir titled Trudging Toward Serenity: A Memoir of Recovery From High-Functioning Alcoholism. Amid the surge of interest in memoirs, and recovery memoirs in particular, few have dealt with the “highly functioning alcoholic,” the one unsure if he even has a drinking problem. Through six years of sobriety, McLeese has achieved a clearer perspective on the line distinguishing habit from addiction and has found a richness in a life without alcohol he had never anticipated. His is not the nightmarish story of recovery told in so many hell-and-back memoirs; it's a book that should resonate with a far larger group of drinkers and readers—the ones who ask themselves how much is too much, or how do you know when enough is enough. It will also explore the culture of Alcoholics Anonymous, how a faith-based organization has transitioned to a more secular society, one in which anonymity has largely been lost to the Internet and social media. The book will enrich the journalism curriculum, in courses including magazine, feature, freelance, narrative non-fiction and book writing, as well as health journalism and health courses outside the SJMC.

MITCHELL, SARA B., PROFESSOR, POLITICAL SCIENCE, 11 YEARS OF SERVICE, SPRING SEMESTER

Title: Water Wars? Conflict and Cooperation over Cross Border Rivers and Maritime Areas

Professor Mitchell will work on a book examining conflict and cooperation over global water resources. Climate changes can alter freshwater supplies available from international river basins, increasing security risks for countries like Iraq and Syria that depend upon water sources originating outside their borders. The book looks at how competition for water resources influences countries' internal and external security situations. In terms of internal risks, the project shows that countries involved in diplomatic conflicts with their neighbors over river basins face much higher risks for intrastate violence, including civil wars, revolutions, and riots, especially if water quantity issues are at stake. In terms of external risks, the project looks at factors that increase or mitigate conflict between countries over river and maritime resources, such as issue salience, upstream/downstream resource trades (oil for water), river basin organizations, and the UN Law of the Sea Convention (UNCLOS). Knowledge gained during the PDA will be shared with students at the UI through a range of courses.

NOONAN, MARY C., ASSOCIATE PROFESSOR, SOCIOLOGY, 14 YEARS OF SERVICE, HALF TIME FOR ONE YEAR (SPRING 2017 AND FALL 2017)

Title: Variation in the Motherhood Penalty Among Women Lawyers

Professor Noonan will examine the way in which women lawyers' early- and mid-career work and family decisions affect their long-term earnings growth. Using longitudinal data on graduates from a top-ten law school, Noonan's project will consist of two distinct, but related, empirical analyses. In the first analysis, Noonan will examine whether the timing of a woman lawyer's first childbirth matters for her long-term earnings growth. Noonan's second analysis will explore whether the decision to take a break from continuous full-time work in order to care for children – via either time-out of the labor force or part-time work– affects a mother's long-term earnings. These findings will help inform new women law school graduates about the costs and consequences of career and family decisions. They will also contribute to sociological literature

exploring heterogeneity - or variation - in the motherhood penalty. Noonan will incorporate her research findings into her courses on gender, work, and the family. Additionally, she will involve students in the project, providing important hands-on training in survey research and quantitative methods.

PETTYS, TODD E., PROFESSOR, LAW, 16 YEARS OF SERVICE, FALL SEMESTER

Title: The Iowa Constitution: A Reference Guide

Professor Pettys will write a large portion of his book titled "The Iowa Constitution: A Reference Guide." The book will serve as the leading resource on the Iowa Constitution for Iowa's judges, legislators, executive officials, attorneys, students, journalists, and other interested citizens. Part I will provide a history of the constitution, beginning with the Territory of Iowa's first attempt to draft a constitution in 1844 and continuing up to the present day. Part II will explain each of the constitution's individual provisions, focusing on the provisions' drafting histories and on the provisions' interpretations by the Iowa Supreme Court. The book is already under contract with Oxford University Press as part of Oxford's series titled "The Oxford Commentaries on the State Constitutions of the United States." The completed manuscript is due in December 2017.

PIGGE, CHRIS, ASSOCIATE PROFESSOR, CHEMISTRY, 10 YEARS OF SERVICE, FALL SEMESTER

Title: Synthetic Studies and New Applications of Heterocyclic Compounds in Organic and Bio-Organic Chemistry

Professor Pigge will develop new approaches for the synthesis of biologically active heterocyclic compounds and explore applications of charged heterocyclic frameworks as anti-cancer agents. 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. In collaboration with researchers in the Carver College of Medicine, he will also examine the use of positively-charged heterocyclic ring systems as anti-cancer agents. This work will broadly impact the areas of organic and medicinal chemistry, and help establish new approaches to targeted chemotherapy for the treatment of cancer. Knowledge gained in this project will enhance Professor Pigge's effectiveness as an educator at the undergraduate and graduate levels.

PLAKANS, LIA M., ASSOCIATE PROFESSOR, TEACHING AND LEARNING, 6 YEARS OF SERVICE, FALL SEMESTER

Title: English Language Learners Integrating Reading With Writing: Language Instruction, Development, and Standards in Schools

Professor Plakans' PDA will focus on English Language Learners (EL) in an elementary school in Iowa. Building on her prior research on the integration of reading skills with writing, she will investigate how ELs develop and learn the academic literacy practice of synthesizing reading with writing in English. This case study research is grounded in the theory of discourse synthesis and on the 2014 English Language Proficiency Standards for K-12 U.S. schools recently adopted in Iowa. The PDA will include collaborative work with an elementary school in Iowa and with an internationally renowned writing research center in Norway with expertise the adoption of writing standards in schools. The project will result in research for publication and presentations at a national educational research conference and the annual Iowa state EL teacher meeting. It will also provide content for teacher education and graduate courses that Professor Plakans instructs.

REINHARDT, JOSEPH M., PROFESSOR, BIOMEDICAL ENGINEERING, 18 YEARS OF SERVICE, FALL SEMESTER

Title: Deep Learning To Detect, Characterize, and Quantify Chronic Obstructive Pulmonary Disease (COPD)

Professor Reinhardt teaches and performs research in the area of medical image processing. In this PDA, he will investigate the use of deep learning, a new and emerging machine learning technique, to detect, characterize, and quantify the extent of lung disease in subjects with chronic obstructive pulmonary disease (COPD). Computed tomographic images will be analyzed to identify anatomic and functional biomarkers. These biomarkers will be used to train and test a machine learning classifier to automatically identify abnormal lung tissue regions. The expected outcome of this activity is the creation of an automatic system that can identify the location and extent of COPD in lung images. This system will provide a better understanding of how COPD varies across individuals and may aid in developing new treatment strategies for the disease. Professor Reinhardt will bring the new methods and results from this PDA into his medical image processing classes. The results from this PDA will serve as preliminary data to apply for external funding to continue developing these methods for use in clinical trials for COPD.

*****STORRS, LANDON R. Y., PROFESSOR, HISTORY, 3 YEARS OF SERVICE, HALF TIME FOR ONE YEAR**

Title: Feminist Internationalism During the Cold War: Caroline Ware in Latin America

Professor Storrs will complete research and begin writing her book on the career of American social scientist Caroline Ware in Latin America (1945-1975). Ware is well-known to U.S. women's historians, but the Latin American phase of her career has never been studied. Storrs uses Ware's hitherto unexamined private papers to expand our knowledge of women's international activism and also of American-led programs in international development during the Cold War. This knowledge will enrich Storrs's teaching and advising of undergraduate and graduate students with regard to women's activism, social policy, and the Cold War. The PDA also is expected to result in chapter drafts, dissemination of findings at international conferences, a published article, and an external grant to support completion of the book.

TANG, WENFANG, PROFESSOR, POLITICAL SCIENCE, 6 YEARS OF SERVICE, FALL SEMESTER

Title: Populist Authoritarianism: Political Culture and Regime Sustainability in China

During the PDA, Professor Tang proposes to complete his book on political culture in contemporary China. This book attempts to explain why protests and regime support coexist in China. It proposes an original theoretical framework of populist authoritarianism as the explanation of regime sustainability. The book draws empirical evidence from multiple public opinion surveys conducted by Professor Tang and other scholars. The manuscript is currently under contract with Oxford University Press. The PDA will allow Professor Tang to implement suggested revisions made by reviewers, adding a chapter on survey reliability in China, and translate the manuscript into Chinese. The materials in the book will benefit students at the University of Iowa through Professor Tang's teaching in his introductory course on Asian Politics, the upper level undergraduate course on Politics and Society in China, and the graduate seminars on Chinese Politics and on Comparative Political Behavior. Also, China's president Xi Jinping has a long-lasting connection with the State of Iowa. In the long run, a better understanding of Chinese political culture will benefit Iowa's interaction with China.

***THEIN, AMANDA H., ASSOCIATE PROFESSOR, TEACHING AND LEARNING, 4 YEARS OF SERVICE, SPRING SEMESTER**

Title: Playing with Adolescence: Reading, Evaluating, and Teaching Literature about the Youth Experience

Professor Thein will write a theoretically-grounded, research-based book appropriate for scholars, teacher educators, and teachers that proposes a new pedagogical model for reading, evaluating, and teaching young adult literature. Drawing on scholarship in the interdisciplinary field of Critical Youth Studies, Professor Thein's book will leverage a re-conceptualization of adolescence/ts toward a re-thinking of scholarly and pedagogical considerations of young adult literature. The book is expected to serve as the organizational framework and primary text for a course on reading and teaching adolescent literature offered through the Department of Teaching and Learning, and is expected to be adopted for similar courses at other universities. Finally, this book is poised to make a substantial contribution to scholarly conversations about how young adult literature is approached as a literary genre in university courses in both English and in education.

THOMAS, BARRETT, ASSOCIATE PROFESSOR, MANAGEMENT SCIENCES, 13 YEARS OF SERVICE, FALL SEMESTER

Title: Methods and Business Models for Same-Day Delivery

Professor Thomas' project for the PDA investigates prescriptive analytics methods that provide decision support for same-day delivery problems. Using these methods, the project will also evaluate potential business models for same-day delivery. During the course of the project, Professor Thomas will collaborate with researchers from Germany. Scholarly outputs will include journal articles and conference presentations. Professor Thomas will incorporate lessons learned from his research into courses at the University of Iowa in the MBA and doctoral programs. Professor Thomas' MBA courses will particularly benefit from the project's focus on international supply chains, a result of the collaboration with European researchers. The outcomes of this PDA will also benefit the people of Iowa and beyond by providing businesses seeking to implement same-day delivery the ability to better evaluate and operate particular business models.

THOMAS, GEB W., PROFESSOR, MECHANICAL AND INDUSTRIAL ENGINEERING, 18 YEARS OF SERVICE, SPRING SEMESTER

Title: Formal Testing of Iowa's Orthopaedic Surgical Simulator At Midwestern Residency Programs

The University of Iowa is a leader in quantitative performance assessment and simulator training for orthopaedic trauma surgery. An interdisciplinary team from the University of Iowa has recently been awarded a major grant from the Agency for Healthcare Research and Quality to study a radiation-free orthopaedic surgical simulator at twelve Midwestern residency programs. Professor Thomas is the chief engineer and human factors expert behind the simulator. This professional development award will provide him the time to directly supervise the scientific assessment of the simulator's effectiveness. He will travel to partner institutions to study the simulator's impact on operating room performance. The experiments will answer important questions about how to most effectively train orthopaedic residents and will generate new questions for future studies. Professor Thomas will publish the results of the work in two peer-reviewed journals. Measuring the design's effectiveness and testing performance in the operating room will also provide an opportunity to tie real-world experiences into his graduate and undergraduate courses, which focus on design, human factors and simulation.

UNGAR, STEVEN R., PROFESSOR, CINEMATIC ARTS, 39 YEARS OF SERVICE, SPRING SEMESTER

Title: Hiroshima Mon Amour (Alain Resnais, 1959): A Film in History

Professor Ungar proposes to conduct research on a new project leading to a book-length study of Alain Resnais's 1959 feature film, Hiroshima Mon Amour. The study will draw on hitherto unavailable documentation to reconsider Hiroshima's place in Resnais' filmmaking between 1948 and 2014. The result will support Ungar's undergraduate and graduate teaching on world cinema at all levels of departmental offerings. It will also support his duties as academic and dissertation advisor to Ph.D. candidates who come to UI to study with him. Ungar will conduct this research in Iowa City and in France where an archive near the city of Caen is expected to release materials it received from the estate of Alain Resnais following his death in March 2014. Benefits resulting from Ungar's research will include maintaining a superior level of instruction of and specialized expertise suitable for a public research university serving the citizens of Iowa. Ungar's research and teaching will contribute to ongoing efforts to expose students to ideas and perspectives they will need to live productively and usefully in a global society.

VARADARAJAN, KASTURI, PROFESSOR, COMPUTER SCIENCE, 15 YEARS OF SERVICE, FALL SEMESTER

Title: The Approximability of Geometric Covering Problems

Algorithmic tasks require resources such as space and time, and the area of computational complexity studies these requirements. A good understanding of time and space requirements is often critical to appreciate the potential and limits of software. Professor Varadarajan studies the computational complexity of geometric problems. In this PDA, he will explore some geometric covering problems that are inspired by the design of cellular and sensor networks, clustering of data, and machine learning. This research is expected to lead to novel algorithmic techniques of broad interest, and will inform Professor Varadarajan's teaching at Iowa.

VECERA, SHAUN P., PROFESSOR, PSYCHOLOGY, 17 YEARS OF SERVICE, SPRING SEMESTER

Title: Cognition in the Car: Attention, Distractibility, and Driving Performance

Safe automobile driving requires that drivers not be distracted by irrelevant objects or secondary tasks, such as cell phone use. Recent technologies have encouraged multitasking, in which someone juggles multiple activities, such as watching television while checking email or driving and cell phone use. Overwhelming evidence indicates that humans are poor multitaskers. In this PDA, Professor Vecera will study the role of cognition, specifically visual attention, on driver distraction. The research involves two interrelated projects, one that aims to identify the characteristics of drivers who are likely to engage in unsafe multitasking behaviors and one that aims to understand how directing visual attention to a driving-critical location (e.g., side-view mirror) is influenced by having previously attended that location. These projects will result in several journal articles and will involve undergraduate and graduate research assistants who will gain research experience. By identifying drivers who might engage in unsafe behaviors, this research will be critical for intervening with such drivers to improve driving safety.

**WADSWORTH, JOHN S., ASSOCIATE PROFESSOR, REHABILITATION & COUNSELOR
ED, 15 YEARS OF SERVICE, FALL SEMESTER**

Title: Best Practices in Note-Taking in Therapeutic Relationships

Unlike note-taking in academia, clinical note-taking addresses the needs of counselors, consumers, and third-party payers and is conducted for a variety of purposes. Note-taking within the counseling relationship effects counselors' cognitive thought process and clients' perceptions of the counselor. There is very limited literature on best practices in note-taking in therapeutic relationships, yet most counselors take notes and believe note-taking is beneficial. The purpose of the project is to further a promising new line of research by identifying "best practices' model of note-taking within therapeutic relationships. This will be accomplished through expansion of the methodology found in Lo & Wadsworth, 2014. The results will be disseminated through peer-reviewed publications with high impact factors and an instructional program distributed in Iowa and across the nation. The project is of interest across therapeutic disciplines and is an important part of the College of Education's strategic research and instruction missions.

**WHITE, SUSAN C., PROFESSOR, ART AND ART HISTORY, 15 YEARS OF
SERVICE, SPRING SEMESTER**

Title: Art in Embassies Installations and Exhibition

During the Spring of 2017, Professor White will be working on three international projects for Art in Embassies, through the U.S. State Department. To accomplish these projects it is vital that she devote all of her time to her creative research through a PDA. These are high-profile projects that will bring prestige to the University of Iowa as well as the State of Iowa. The U.S. State Department has asked her to work with them on permanent installations in their soon-to-be built U.S. Embassy sites in Turkmenistan and Taiwan, as well as providing work for a three-year exhibition at the Consul-General's in Jerusalem titled "Current Abstraction." Professor White has had the opportunity to work with Art in Embassies in the past, with work on the collection in the U.S. Embassy in Algeria. While meeting with the director and curators of Art in Embassies at the State Department this summer in Washington, Professor White discussed ways of collaborating on future projects with students through grant funding and/or through possible course work for credit. A public art course for studio art students is a logical next step that she will develop for the University of Iowa.

**WIEMER, DAVID F., PROFESSOR, CHEMISTRY, 37 YEARS OF SERVICE, SPRING
SEMESTER**

Title: Synthesis of Biologically Active Compounds

Professor Wiemer will conduct research in synthetic organic and medicinal chemistry. His major focus will be to design and pursue laboratory syntheses of new organophosphorus compounds intended to mimic the isoprenoid phosphate esters that are central to human metabolism. These compounds will be supplied to his collaborators to determine if they have activity as inhibitors of key enzymes, which would be of value as potential treatments for multiple myeloma, or as stimulants of gamma, delta T-cells which may lead to new ways to encourage the immune system to respond to malignancies. He will also pursue synthesis of biologically active natural products that may serve as potential anti-cancer agents. These efforts will improve his ability to secure external research funding, and enhance his ability to teach organic chemistry courses at both the graduate and undergraduate levels. His efforts may lead to new compounds of value as biological probes or even with clinical utility, and new intellectual property that would be held by the UI.

WILDER, DAVID G., PROFESSOR, BIOMEDICAL ENGINEERING, 19 YEARS OF SERVICE, SPRING SEMESTER

Title: Nonlinear Response of Back Muscles to Seated Whole-Body Vibration

Although designers try to provide comfort, control, and safety for operators of vehicles and equipment, lower back problems are a known consequence of prolonged sitting in whole-body vibration environments commonly found there. Both the American National Standards Institute and the International Standards Organization have developed consensus standards, over more than 30 years, regarding human exposure to vibration. The existing standards do not consider the effect of back muscle response by the seated operator. Professor Wilder's study seeks to understand the discrepancy between back muscle response due to exposure to simple versus complex whole-body vibration conditions while in the seated posture. This project expects to result in journal articles, a grant from the CDC or CDMRP, stories and data for classes, research and development experiences for students, and data for improving standards, seats and associated products to be developed in Iowa.

WILSON KIMBER, MARIAN, ASSOCIATE PROFESSOR, MUSIC, 11 YEARS OF SERVICE, FALL SEMESTER

Title: Female Composers at the White House: Phyllis Fergus's Advocacy for Women in American Music

Professor Wilson Kimber will research and write an article-length study exploring Chicago composer Phyllis Fergus's advocacy for women composers during the 1930s, specifically through organizing a concert hosted by First Lady Eleanor Roosevelt at the White House in 1934 that featured leading composer Amy Beach. Professor Wilson Kimber will undertake research at the Roosevelt Presidential Library and Museum, Beach's papers at the University of New Hampshire, the archives of the Association of American Pen Women, and the Chicago History Museum. Her completed article, submitted to the Journal of the Society for American Music, will be the first consideration of Phyllis Fergus's role in producing women composers' concerts and their significance within the Roosevelt administration's arts agenda. Her research will provide a new understanding of women's roles in American music, informing her undergraduate music history survey and her seminars on American music and women composers.

WINET, JON, PROFESSOR, ART AND ART HISTORY, 12 YEARS OF SERVICE, HALF TIME FOR ONE YEAR

Title: Quilts & Landscapes: Public Digital Humanities Research

Professor Winet will be working on two public digital humanities projects during his PDA. He will continue his direction of the development team for "AIDS Quilt Touch," a mobile web app that allows electronic access to the 1.3 million square foot NAMES Project AIDS Memorial Quilt. He will also create a collaborative online multimedia project that explores the landscape paintings of celebrated California artist Wayne Thiebaud. In conjunction with his research, he will be revising and developing related undergraduate and graduate courses, "Artists in Community" and "Local Heroes." Each promote engagement and pride in Iowa's communities and civic leaders, while providing training in research and the use of digital authoring tools in audio, video and web design to create publically accessible online projects.

YABLON, NICHOLAS, ASSOCIATE PROFESSOR, AMERICAN STUDIES, 12 YEARS OF SERVICE, FALL SEMESTER

Title: The Birth of the Time Capsule: The Politics of Posterity, 1876-1938

Professor Yablon will complete his book on the history of American efforts to communicate

across time. Historians tend to privilege “unintended sources” – the letters, for instance, that individuals sent to their contemporaries, or the documents they produced for their own, present needs. Consequently, they overlook the ways in which cultures reach out to other periods. By exploring the emergence of the time capsule in Gilded Age America, Professor Yablon will reveal the changing ways in which people have addressed future generations (or even future historians) and encapsulated the present for them. Furthermore, in tracing the emergence of a sense of “duty to posterity,” he will contribute to public debates about the environmental (or economic) rights of those who come after us. His project will also feed into his undergraduate and graduate courses in American cultural history, in particular those relating to issues of temporality, memory, monuments, and media.

*Will have met the 10-semester requirement prior to taking the assignment approved per SUI policy.

**Will be credited two semesters for past service.

***Memorandum of Understanding generated when faculty member was recruited. Exception to the required semesters was granted based on past service and teaching.

IOWA STATE UNIVERSITY (*denotes received one prior PDA)

ANDERSON, NADIA M., ASSOCIATE PROFESSOR, ARCHITECTURE, 10 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Anderson's PDA will allow her to participate in the 2016-2017 Loeb Fellowship program at Harvard University's Graduate School of Design, where she will develop interdisciplinary tools related to global climate change for rural and urban communities. These tools will enhance Iowa State's community engaged design practices, and be used by Extension and Outreach staff, local governments, and faculty colleagues.

ARNDT, GRANT, ASSOCIATE PROFESSOR, ANTHROPOLOGY, 7 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Arndt proposes a PDA to advance ongoing research on American Indian culture and politics, which will provide new material for his courses in Anthropology and American Indian Studies, and contribute to a better understanding of how indigenous people used the dominant media of their time (1930-1949) to gain political agency and voice, an issue of central concern in contemporary anthropology.

BANG, EUNJIN, ASSOCIATE PROFESSOR, SCHOOL OF EDUCATION, 7 YEARS OF SERVICE, FALL SEMESTER

Professor Bang will use a proposed PDA to study how Japanese teachers prepare, work with students, and collaborate with each other to extend her research on enhancing science instruction and STEM instruction. Bang's work will identify high-level practices for teacher effectiveness, and emerging technologies for teaching and student learning, which will be used to benefit current and future K-12 science teachers.

BIGELOW, TIMOTHY A., ASSOCIATE PROFESSOR, ELECTRICAL AND COMPUTER ENGINEERING AND MECHANICAL ENGINEERING, 7 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Bigelow proposes a yearlong PDA to gain industrial experience in the nondestructive evaluation of aluminum at the Alcoa Technical Center in Pennsylvania. Bigelow's assignment will better prepare students to help revolutionize manufacturing in Iowa, and better understand the needs and limitations of quality control in an advanced industrial setting. Expected outcomes include building a strong collaboration with an industry partner, building stronger graduate courses and research experiences, and improving mentoring of undergraduates.

BOGDANOVIC, JELENA, ASSISTANT PROFESSOR, ARCHITECTURE, 3 YEARS OF SERVICE, SPRING SEMESTER

Professor Bogdanovic proposes a PDA to complete her book, *Spatial Icons: The Canopy and the Human Body*. The project builds upon Bogdanovic's previous book, which examined canopies from archaeological and architectural perspectives. The work will also provide Bogdanovic with additional tools for teaching advanced courses on meaning and form in architecture, and contribute to departmental and college research.

CHAMBERLIN, DENNIS, ASSOCIATE PROFESSOR, GREENLEE SCHOOL OF JOURNALISM AND COMMUNICATION, 10 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Chamberlin proposes to spend the 2016-2017 academic year as a Fulbright Scholar, teaching photojournalism and multimedia to journalism students in Ukraine. Chamberlin will work to build a new photojournalism and multimedia program at the Ukrainian Catholic University in Lviv; establish collaborative projects between Ukraine and Iowa that build upon similarities and differences between the two regions; and create an exhibit of photographs from his year abroad.

CLARK, LYNN GAIL, PROFESSOR, ECOLOGY, EVOLUTION AND ORGANISMAL BIOLOGY, 29 YEARS OF SERVICE, SPRING SEMESTER

Professor Clark proposes a six-month assignment in Brazil, Europe, and Ames, working on an international collaborative project to document and describe an estimated 300 species of Brazilian bamboos, including species new to science. Expected outcomes include graduate student training, peer-reviewed publications, enhanced biodiversity collections, new identification tools, and a more complete understanding of Brazilian bamboo diversity.

CROSBY, RICHARD BENJAMIN, ASSOCIATE PROFESSOR, ENGLISH/SPEECH COMMUNICATION, 6 YEARS OF SERVICE, SPRING SEMESTER

Professor Crosby proposes a PDA to complete a draft of his manuscript, *American Kairos: Civil Religious Discourse and The Washington National Cathedral*. The book will use various humanistic methodologies to consider the viability of the Cathedral's unifying mission as a "House of Prayer for All People." This work will also be incorporated into Iowa State English and Speech Communication courses, and spur collaborations with the departments of History and Philosophy and Religious Studies.

DINSMORE, STEPHEN J., PROFESSOR, NATURAL RESOURCE ECOLOGY AND MANAGEMENT, 10 YEARS OF SERVICE, SPRING SEMESTER

Professor Dinsmore proposes a PDA to finalize and publish findings from his work on threatened and endangered animals, including a visit to an endangered bird habitat in Oregon. Dinsmore will also participate in the LEAD21 Leadership for the 21st Century training program for land grant faculty in the agricultural sciences. Results will include preparing at least four peer-reviewed manuscripts and a book chapter.

EISMAN, APRIL, ASSOCIATE PROFESSOR, ART AND VISUAL CULTURE, 8 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Eisman proposes to visit Germany and study the life and work of Angela Hampel, one of East Germany's most successful female artists. The assignment will result in a book manuscript on Hampel; advance Eisman's scholarship on the art of East Germany; provide new material for her courses on contemporary art; and contribute to a better understanding of the challenges women artists faced in socialist societies.

FOX, RODNEY O., DISTINGUISHED PROFESSOR, CHEMICAL AND BIOLOGICAL ENGINEERING, 17 YEARS OF SERVICE, SPRING SEMESTER

Professor Fox has been selected as an International Francqui Professor by the Francqui Foundation, a prestigious honor reflecting his contributions to the field of computational fluid dynamics. The award enhances the reputation of Iowa State and its Chemical and Biological Engineering program, and will benefit a large community of Belgian scientists and engineers.

FRANZ, KRISTIE JEAN, ASSOCIATE PROFESSOR, GEOLOGICAL AND ATMOSPHERIC SCIENCES, 9 YEARS OF SERVICE, FALL SEMESTER

Professor Franz will visit the National Center for Atmospheric Research in Colorado during her proposed PDA, researching a new model, WRF-Hydro, which includes atmospheric, surface hydrology, and vegetation processes. This model will then be implemented at Iowa State, providing opportunities for faculty to conduct comprehensive whole-watershed studies of interest to Iowa and the Midwest (such as flooding), and for students to build highly marketable modeling skills.

GALLUS, WILLIAM, PROFESSOR, GEOLOGICAL AND ATMOSPHERIC SCIENCES, 20 YEARS OF SERVICE, FALL SEMESTER

Professor Gallus, an expert in understanding and predicting small-scale weather events, proposes a PDA in Italy to study how warmer Mediterranean Sea water affects thunderstorm rainfall intensity and tornado frequency, using a numerical weather prediction model. Knowledge gained from this research will help societies prepare for likely challenges in the coming decades, and directly benefit Iowa State students in multiple weather-related courses.

GRASS, SEAN C., ASSOCIATE PROFESSOR, ENGLISH, 3 YEARS OF SERVICE, FALL SEMESTER

Professor Grass' proposed PDA will focus on completing a monograph, *Life Upon the Exchange: Autobiography, Sensation, and the Commodification of Identity in Victorian Narrative*, which examines the rise of autobiography to popular and commercial prominence in England during the first half the 19th century in England. The PDA will also enhance Grass' teaching, and the development of both undergraduate and graduate courses on Victorian literature.

HONG, WEI, ASSOCIATE PROFESSOR, AEROSPACE ENGINEERING, 7 YEARS OF SERVICE, FALL SEMESTER

Professor Hong proposes a PDA to expand his research in the study of lightweight flaw-tolerant composite structures, and to develop collaborations in additive manufacturing with experts in nano-fabrication and polymer composite synthesis. Expected results include numerous publications and invited seminars. The research will also provide Iowa State students education and research opportunities with real-world applications.

HOPKINS, CHRISTOPHER, ASSOCIATE PROFESSOR, MUSIC AND THEATRE, 11 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Hopkins, an expert in electroacoustic musical composition, and virtual reality application development for music composition and performance, proposes a PDA to create three musical compositions, and chapters for a book of essays on composition and teaching composition. This work, which also integrates software design into the composition process, will lead to new lectures and laboratory projects for Iowa State students in composition and music technology.

HUGHES-BELDING, KERE ELIZABETH, ASSOCIATE PROFESSOR, HUMAN DEVELOPMENT AND FAMILY STUDIES, 12 YEARS OF SERVICE, FALL SEMESTER

Professor Hughes-Belding proposes a PDA to extend her research on home visiting programs that serve families with young children. She will work with colleagues at Iowa State and Utah State University to examine the utility of observational assessment and self-reflection in home visiting programs, how observational tools are used, and how to improve the quality of home visits. Hughes-Belding will also use the PDA to enhance grant-writing capabilities.

HURST, JESSICA LYNN, ASSOCIATE PROFESSOR, APPAREL, EVENTS AND HOSPITALITY MANAGEMENT, 8 YEARS OF SERVICE, SPRING SEMESTER

Professor Hurst will use the proposed assignment to shed light on the critical importance of internships, and their impact on employers' hiring decisions. Outcomes of the PDA include writing several peer-reviewed presentations and publications regarding the nature and impact of internships, and preparing a book proposal on internship best practices. These outcomes will also be used to mentor undergraduate and graduate students in professional development and career preparation.

JAHREN, CHARLES T., PROFESSOR, CIVIL, CONSTRUCTION AND ENVIRONMENTAL ENGINEERING, 22 YEARS OF SERVICE, FALL SEMESTER

Professor Jahren has been a leader in his department in implementing online, hybrid, active, and project-based learning to enhance teaching effectiveness. Jahren will use the proposed PDA to work with collaborators in European and Pacific Rim institutions, evaluating similar teaching techniques in other nations, and sharing the results through scholarly articles, conference presentations, and by making improvements at Iowa State.

KAMINSKI, ADAM, PROFESSOR, PHYSICS AND ASTRONOMY, 11 YEARS OF SERVICE, FALL SEMESTER

High temperature superconductors are highly promising materials, used to make strong magnets for medical devices, and highly efficient motors for wind turbines. Professor Kaminski proposes a PDA to study the electronic properties of iron arsenic superconductors, with a goal of understanding pairing mechanisms in these materials, and to further improve their properties. The assignment is expected to lead to several high-profile publications, and create valuable training opportunities for graduate students.

KAWALER, STEVEN, PROFESSOR, PHYSICS AND ASTRONOMY, 26 YEARS OF SERVICE, FALL SEMESTER

Professor Kawaler proposes a PDA to visit colleagues in Denmark and England to explore ways to maximize the scientific yield of space missions, including studying stars at the end stages of their stellar lifetimes, as well as the planets around those stars. The work will keep Iowa State at the forefront of stellar astrophysics and extrasolar planet studies, and result in several peer-reviewed papers and new research collaborations.

**NIEHM, LINDA S., PROFESSOR, APPAREL, EVENTS AND HOSPITALITY MANAGEMENT,
13 YEARS OF SERVICE, FALL SEMESTER**

Professor Niehm will use the proposed PDA to develop programming and funding for a Retail and Consumer Product/Services Business Incubator, and implement a complementary Retail Learning Lab at Iowa State. Outcomes include benefits for Iowa State students and faculty, entrepreneurship-related teaching and research collaborations, and a bridge for students from the classroom to business start-up.

**RIVERO, IRIS, ASSOCIATE PROFESSOR, INDUSTRIAL AND MANUFACTURING
SYSTEMS ENGINEERING, 3 YEARS OF SERVICE, FALL SEMESTER**

Professor Rivero proposes an assignment to design and validate microbially mediated zinc sulfide as an effective antibacterial to promote the rapid healing of badly burned skin. Results from this work, which includes visits to colleagues at Oak Ridge National Laboratory, Texas Tech University, and the University of Edinburgh, will lead to the development of external funding proposals, and foster interdisciplinary research and education opportunities in Iowa State's colleges of Engineering, Liberal Arts and Sciences, and Veterinary Medicine.

**SHROTRIYA, PRANAV, PROFESSOR, MECHANICAL ENGINEERING, 12 YEARS OF
SERVICE, SPRING SEMESTER**

Developing ultrahard materials, and sensors to detect biological and chemical substances, is of critical importance to the state and nation. Professor Shrotriya proposes a PDA to work with colleagues at Iowa State and other institutions to develop large proposals that accelerate the development of new devices and manufacturing processes. Shrotriya will also work with Aptalogic, an Ames-based small business, to translate his recent work on biological sensing to develop a portable sensor for detection and monitoring of patient health.

**SMILEY-OYEN, ANN, ASSOCIATE PROFESSOR, KINESIOLOGY, 15 YEARS OF SERVICE,
SPRING SEMESTER**

Professor Smiley-Oyen will focus her proposed PDA in two research areas. In the first, she will extend her research on motor sequencing and brain activation during movement sequencing in young adults and children with developmental dyslexia, leading to additional research and funding opportunities. In the second, Smiley-Oyen will develop applied learning activities that require both critical thinking and problem solving for her undergraduate courses. These activities will have a direct and positive impact on the teaching/learning environment, and will be shared with other institutions.

**TANG, LIANG, ASSOCIATE PROFESSOR, APPAREL, EVENTS AND HOSPITALITY
MANAGEMENT, 6 YEARS OF SERVICE, FULL ACADEMIC YEAR**

Professor Tang proposes a PDA to create programs at the American Culture Centers (supported by the U.S. Embassy in Beijing) on the campuses of Henan Normal University and Harbin University of Science and Technology in China. Tang will prepare the "Bald Eagle and Panda" culture exchange virtual conference, plan a 10-day U.S. study trip, and develop tourism marketing courses between Iowa State and Harbin University. This work will broaden cultural and academic outreach of the U.S. Embassy, and between the three universities.

TIRTHAPURA, SRIKANTA, ASSOCIATE PROFESSOR, ELECTRICAL AND COMPUTER ENGINEERING, 13 YEARS OF SERVICE, FALL SEMESTER

Professor Tirthapura's proposal includes visits to major industry and research labs to apply data analytics to improve cybersecurity. The PDA will help Tirthapura and his colleagues gain a better understanding of industry techniques and challenges, which is expected to lead to research reports and publications and joint research proposals. The project will also create new courses and case studies in data analytics and security at Iowa State.

VAIDYA, UMESH, ASSOCIATE PROFESSOR, ELECTRICAL AND COMPUTER ENGINEERING, 10 YEARS OF SERVICE, FALL SEMESTER

Professor Vaidya, an expert in control and dynamical system theory, proposes a PDA to develop a framework for analysis and real-time control of network systems. This work will lead to a suite of methods that allow professionals to make the transition from big data to decision making; and train the next generation of engineers in big data analytics through curriculum development and senior design team projects.

WELK, GREGORY JOHN, PROFESSOR, KINESIOLOGY, 16 YEARS OF SERVICE, FALL SEMESTER

Professor Welk's PDA will lay the groundwork for future international research collaborations. Welk has led the development of a calibrated self-report tool, the Youth Activity Profile (YAP), used in national assessments in the U.S. The PDA will focus on fostering international collaborations with the YAP, with the potential for new research on assessment and promotion of physical activity for children around the world, and external funding for international teams.

YILMAZ, SEDA, ASSOCIATE PROFESSOR, INDUSTRIAL DESIGN, 5 YEARS OF SERVICE, FULL ACADEMIC YEAR

Professor Yilmaz proposes an assignment in the Netherlands to conduct research on how students learn to be innovative, and how instructors use feedback to help students create innovative designs. This work will result in a published Design Feedback Guide to provide Iowa educators with research-based methods for encouraging innovation in their classrooms. Yilmaz' research will also build on previous federally funded work to advance STEM-related skill sets and creativity that are critical to success in the global economy.

YU, CHENXU, ASSOCIATE PROFESSOR, AGRICULTURAL AND BIOSYSTEMS ENGINEERING, 8 YEARS OF SERVICE, FALL SEMESTER

Professor Yu's proposed assignment at Dalian Polytechnic University in China will expand research capabilities in food safety and environmental mitigation, specifically in the areas of biosensing devices to accurately detect pathogens and toxins, and the use of BioChar to recycle volatile compounds from gasoline storage tanks. Yu will also develop an ISU graduate course on analytical methods for biomaterials.

UNIVERSITY OF NORTHERN IOWA

AGBESE, PITA OGABA, PROFESSOR, POLITICAL SCIENCE, 16 YEARS OF SERVICE, SPRING SEMESTER

Regional Counter-Terrorism Strategy: West Africa's War against Boko Haram

The rise of Islamic terrorist groups such as Boko Haram in Nigeria and Al Qaeda in the Islamic Maghreb (AQIM) in Mali has transformed West Africa to a major theater of anti-terrorism operations. In response to Boko Haram, Nigeria, Chad, Cameroon, Benin and Niger have created a multinational military joint task force against terrorism. Drawing on the West African experience, this project seeks to analyze the effectiveness of a regional military alliance as a counter-terrorism strategy. Relying on a large data base on Boko Haram, the project will study the development and effectiveness of the five-nation military alliance. The project will use charts, graphs and simple multiple regression techniques to compare the scope and magnitude of Boko Haram attacks before and after the formation of the alliance. It will also examine the geographical scope of territory occupied by Boko Haram before and after the formation of the regional alliance. Data on military budgets will be used to compare costs of unilateral and multilateral actions against Boko Haram. This study will benefit the University of Northern Iowa and the citizens of Iowa by enhancing understanding of global terrorism, and disseminating this research in scholarly publications, to students in the classroom, and to the larger community through public lectures and media interviews.

BARRETT, KOREY, ASSOCIATE PROFESSOR, SCHOOL OF MUSIC, 7 YEARS OF SERVICE, SPRING SEMESTER

The Exploration and Performance of Rare French Opera and Art Song Repertoire

For this project Professor Barrett will conduct research regarding the valuable yet largely-unknown French art song and opera repertoire at the Bibliothèque-Musée de l'Opéra National de Paris. That archive contains a large number of French opera and art song scores dating back three centuries, which are unavailable elsewhere. The goal of this project is to perform some of these operas and art songs at the summer opera company he directs in San Diego, at the School of Music at UNI, and in concerts and recitals throughout the country. To accomplish this, Professor Barrett will examine musical scores in the archive, identify selected pieces for performance, and conduct other research needed for their performance, including the study of the little-known French style of classical singing that is used in performing such music. In addition to these creative performances in Iowa and elsewhere, this work will enable Barrett to become a better vocal coach to his students at UNI.

CHENOWETH, JONATHAN, ASSOCIATE PROFESSOR, SCHOOL OF MUSIC, 23 YEARS OF SERVICE, SPRING SEMESTER

Leonard Bernstein: Two Answers to Everything

This project involves the completion of a book about Leonard Bernstein, America's preeminent conductor/composer. It situates Bernstein at the center of the musical culture of twentieth-century America. Bernstein's example exposes prevailing false binaries in the criticism, scholarship, and presentation of music, and challenges us to reconsider highbrow and lowbrow traditions in light of his compositional eclecticism and populist appeal as a conductor within an elitist art form. His approaching centennial offers an excellent opportunity to celebrate his contributions and to place these in a comprehensive context that ultimately illuminates twentieth-century America and the enterprise of music. The work will entail periods of research at the Library of Congress, but the bulk of the time afforded by this support will be spent writing chapters of the book manuscript. Although the primary artifacts of this research will be publications Professor Chenoweth will also advocate on behalf of Bernstein's legacy by

reaching out to regional concert presenters as a resource for centennial year programming ideas, and to educators statewide to promote Bernstein's interdisciplinary educational vision.

GAFF, DONALD, ASSOCIATE PROFESSOR, SOCIOLOGY, ANTHROPOLOGY, & CRIMINOLOGY, 6 YEARS OF SERVICE, SPRING SEMESTER

The Archaeology of the Black Medicine Site

The Black Medicine Site (Iowa site number 13BH164) is a late prehistoric Native American campsite on the grounds of what is now the Hartman Reserve Nature Center in Cedar Falls, Iowa. It was found during UNI's Archaeological Field School in 2008. Work during that field season and subsequent ones (2009, 2010, and 2011) generated a large amount of prehistoric artifacts including arrowheads, ceramics, and fire-cracked rock. While the preliminary analysis from the first season was published, the other three years of excavation need to be reported. This project will complete the analysis of the site and result in a report detailing excavation of the site, permitting the findings to be disseminated. The project will involve carrying out artifact analysis and cataloging, including identifying diagnostic pieces for dating, organizing spatial information and production of maps. The report will be distributed to government agencies involved in historic preservation and archaeology. In addition, Professor Gaff will begin work on a monograph on the Black Medicine site that is geared for both archaeological professionals and the wider public. The proposed project benefits UNI by reinforcing or strengthening relationships with Hartman Reserve Nature Center and historic preservation agencies throughout the state. The university would also be represented when presenting the findings at conferences, in classes, and to interested media. Iowa citizens would benefit from having a greater knowledge of the state's past.

GOLDMAN, JOANNE, PROFESSOR, HISTORY, 22 YEARS OF SERVICE, SPRING SEMESTER

Molycorp and the US Rare Earth Industry: A Quagmire of Economic, Environmental, and National Interests, 1950-2010

Professor Goldman will complete a scholarly manuscript on the history of Molycorp, a corporation that is a microcosm of the rare earth industry—a strategic sector of the US economy that currently faces overwhelming challenges. Rare earths have great technological importance particularly in the electronic, medical, and defense industries, and thus our economic and national security. In 1950 the U.S. corporation, Molycorp, acquired the nation's largest rare earth reserve and by the 1980s, supplied the bulk of the world's supply. However during the 1960s and 1970s new regulatory practices influenced economic and political policies that undermined the industry's profitability. Molycorp as well as other sectors of the rare earth industry either reduced production or ceased production altogether. In the 1980s and 1990s China, the country with the largest supply of rare earths and unfettered by strict regulations, developed its own processing capabilities and by the end of the twentieth century, China dominated the industry. In short, the competing interests of private industry versus the public domain, economic development versus environmental regulation, state versus national interests, and national security versus global priorities impacted the vitality of the domestic rare earth industry. For Iowans, this study is particularly significant because Iowa State University plays a critical role in the rare earth industry. In addition, this project will contribute to the body of literature relevant to courses at UNI: including several offered by the College of Business and the Departments of Earth Science, Political Science, and History.

HALL, KENNETH, ASSOCIATE PROFESSOR, ART, 6 YEARS OF SERVICE, FALL SEMESTER

Investigation of Photo-Realistic Painting Techniques in a New Series of Large Works

Professor Hall is a nationally and internationally recognized painter. In the past four years he has exhibited work in two New York City art fairs (one of the highest levels of exposure in the commercial art world) and has had solo exhibitions at five colleges or universities, where he presented his work and philosophy about painting to numerous students and faculty members. For this project he will plan and create 4 new large paintings while experimenting with new painting techniques. His recent paintings juxtapose somewhat realistic figures (bodies) from famous Old Master paintings with a fragmented environment of abstract forms and somewhat chaotic paint effects. He plans to modify this painting process substantially to achieve far more photo-realistic imagery than he has achieved in the past. He will be altering the visual "mix" to include more photo-real elements, in order to create work that is more visually compelling. Incorporating a higher level of photo-realism in his paintings is likely to boost his work to a new level of recognition in the art world, bringing positive publicity to the University of Northern Iowa and even the State of Iowa, particularly when he is in an international situation.

HITLAN, ROBERT, PROFESSOR, PSYCHOLOGY, 12 YEARS OF SERVICE, SPRING SEMESTER

Advancing Our Understanding of the Nature and Correlates of Social and Workplace Ostracism: Implications for Intergroup Relations and Organizational Effectiveness

This project has two primary objectives and utilizes available research infrastructure within the department of psychology - the Psychoneuroendocrinology Laboratory (PNE Lab). This laboratory allows for the collection and analysis of saliva for a variety of biomarkers related to psychological and physical health including neuroendocrine and immunological functioning. The first objective is to write up two manuscripts for publication. The first manuscript will examine the relations among social ostracism, biological markers of stress and inflammation, and psychological and physical health. The second manuscript will examine the impact of workplace ostracism on interpersonal and organizational outcomes. The second objective is to collaborate with experts in the area of social ostracism to design a series of experimental studies to advance our understanding of a specific form of ostracism - linguistic ostracism. Linguistic ostracism occurs when an individual is ostracized by others speaking a language that the target has extremely limited or no ability to understand. However, as yet, little is known about how such experiences influence activation of internal biological threat systems and subsequent stereotyping, prejudice, and, ultimately discrimination. The University will benefit by increased recognition, its willingness to support inter-institutional research collaborations, and potential for increased minority student interest in UNI. Iowa citizens will also benefit by having an expert on social and workplace ostracism available for consultation, and hosting workshops related to social ostracism and the interplay among social ostracism, immigration, and intergroup relations.

MACHEN, EMILY, ASSOCIATE PROFESSOR, HISTORY, 6 YEARS OF SERVICE, SPRING SEMESTER

Women of Faith and the Reconstruction of French National Identity: Catholic, Protestant, and Jewish Women Facing the Twentieth Century

Early twentieth-century France offers an important case study for understanding how women of faith can shape the place of religion within a nation's culture. This study, which will result in a book or several scholarly articles, explores a moment in French history between 1880 and 1930 when the public's relationship with religion underwent rapid change. French women guaranteed that religion continued to be an important component of French national identity, despite the

secularism that was fast becoming a cornerstone of French society. At the same time, French Catholic, Protestant, and Jewish communities' support for women's suffrage and access to education was critical to undermining women's subordinate position to men. Although this project focuses on early twentieth-century France, it illuminates religious questions faced by people around the world, including Iowans. Western societies have come to judge faith communities by how they treat women. Religious women's actions, dress, and public visibility often indicate the compatibility of a faith group with Western culture or a faith community's seeming rejection of "modern," Western values. We see this clearly in recent French debates about the acceptability of wearing the hijab and burka in public, in concerns about polygamy among some American Mormon sects, and in Catholic debates about family planning and the all-male composition of the clergy. Putting those debates in their historical context can help UNI students and Iowans understand the consequences of religious belief and governmental policy on individuals, nations and cultures. This is particularly important as Western nations search for ways to integrate new immigrants and Islam into their national communities.

O'LOUGHLIN, JIM, ASSOCIATE PROFESSOR, LANGUAGES & LITERATURES, 11 YEARS OF SERVICE, SPRING SEMESTER

James Hearst Digital Archive

Professor O'Loughlin has collaborated with UNI Rod Library's Special Collections and University Archives to create The James Hearst Digital Archive (JHDA). It is an online, digital archive dedicated to the work and life of the renowned Cedar Falls, Iowa poet, James Hearst. The project aims to select, digitize, and synthesize material from three sources: the Hearst Family Papers archive, James Hearst: A Bibliography of His Work, and The Complete Poetry of James Hearst. The JHDA will allow general readers greater access of the work of James Hearst while also creating new data sets of Hearst's work that will allow scholars to use digital analytical tools to interpret his work. Importantly, the process of the project is as important as the product. The process allows students to play a role in significant digital humanities research, in selecting materials for digitization, in creating data sets, and in deploying data analysis and visualization tools. Additionally, one of the goals of this project is to work with UNI English Education students and alumni teachers to develop secondary curriculum that works with and through the JHDA.

ROBERTS-DOBIE, SUSAN, ASSOCIATE PROFESSOR, HEALTH PROMOTION, 17 YEARS OF SERVICE, FALL SEMESTER

Planning Social Support in the Post-Partum Period

The purpose of this research project is to gain a better understanding of the ways in which expectant first-time mothers plan for their post-partum experience (also known as 'the 4th trimester') and determine whether this planning impacts their perceived social support during that time. 'Social support' is a term describing the types of help we receive from our contact with others. It is delivered in four forms: emotional, instrumental, informational, and appraisal. Specific to postpartum mothers, social support is shown to have a significant positive correlation with outcomes such as breastfeeding, infant care, maternal adaptation, and self-esteem. In order to determine the role of, plans for, and utilization of social support during the post-partum period, 20 participants will be recruited from a local OB-GYN/Midwife office (half Medicaid recipients and half private-pay). Two semi-structured interviews will be conducted via telephone at approximately one month and three months post-partum. Based on interviews, a theory will be developed to describe the ways in which planning for the '4th trimester' may impact perceptions of social support during that time, and will result in the development of a tool to help women plan social support in advance of birth. Results from this project will assist in improving the post-partum experience for a large number of Iowans. Such research can tangibly improve the health and lives of Iowans, and others beyond.

SOANS, FRANCESCA, ASSOCIATE PROFESSOR, COMMUNICATION STUDIES, 9 YEARS OF SERVICE, SPRING SEMESTER

A River Speaks (working title)

This project will result in an hour-long documentary, shot in High Definition video, chronicling the battle waged by a small rural community in the foothills of the Himalayas to operate their own community radio station. Caught between natural disasters, economic challenges, and political changes, the isolated community struggles with issues of economic hardship, gender, and social inequality. Over three years, the documentary follows the efforts of grassroots organization Mandakini Ki Awaz and People's Power Collective, an NGO, to organize and train community members to build, manage, and sustain a radio station to give voice to their own concerns. Through their story, the documentary highlights the challenges faces by the burgeoning community radio movement in India and its impact on rural communities. The project fits within the University's interest in providing a global education and in promoting diversity. It contributes to the knowledge and understanding of international communities and the role of radio in rural development and civic participation. It fosters professional mentorship as students will participate in the technical production of the project. It will further contribute to the development of courses in documentary in the Electronic Media major. Finally, it will serve as an important educational resource on issues of rural development, minority rights, women's issues, and the spread of grassroots democracy.

SUTTON, ELIZABETH, ASSOCIATE PROFESSOR, ART, 5 YEARS OF SERVICE, FALL SEMESTER

Beyond the Surface: Art, Animals, and Experience

This project will present art creations that invite viewer contemplation of humans' relationships to the natural world through their use of animals as mediators of experience. Further, it investigates how audiences today make meaning and connections to the works. Using the archaic rock paintings at Horseshoe Canyon, Canyonlands National Park, Rembrandt van Rijn's etching of *The Presentation in the Temple* (c. 1640), and Joseph Beuys's social sculpture *I Like America and America Likes Me* (1974) it demonstrates how artists employ animals and the sensory experience of the composition to engage viewers in contemplative reflection of natural and spiritual worlds. Using collected student reflections and surveys of tourists to Horseshoe Canyon, it seeks to show how meaning is made in experiencing art with animals and how the connections articulated between a person and animal or art piece can be called upon for creating future empathetic interactions and collaborations. This particular research is part of a larger book project which is significant because it proposes a model for a more inclusive art historical method. It contributes new interpretations of Rembrandt, Beuys, and pre-historic art, and it builds cross-cultural and cross-temporal connections. This multi-part project will benefit Iowa and UNI students by utilizing research methods that survey individual experiences of art and translate to active pedagogy, by engaging the wider public community and by raising the profile of arts' role in community engagement.

TAFT, STEPHEN, ASSOCIATE PROFESSOR, THEATRE, 14 YEARS OF SERVICE, SPRING SEMESTER

The Theatre in You: An Electronic Textbook Proposal

In this project Professor Taft will work with Great River Learning in Dubuque, Iowa to create an interactive, electronic Introduction to Theatre textbook. The textbook will have video, sound, and animation capabilities. It will use photographs to illustrate specific concepts, and will have review, study and assessment resources embedded within the text. This text will offer a practical perspective illustrating the relevance of theatre to the student in the present and the future. It will include interviews with Professor Taft's personal contacts in theatre, television and

film worlds, including a producer, art director, voice-over actor, a director/choreographer, a stuntman and actors that have worked on Broadway, in television and Oscar-winning films such as *12 Years a Slave*, *The Butler* and *Birdman*. This electronic textbook will be of benefit to UNI and other universities in Iowa and around the country because existing Introduction to Theatre textbooks can be quite theoretical and expensive. *The Theatre in You* would be reasonably inexpensive and more accessible to students. In addition, because it will be an electronic textbook it can be easily and frequently updated, so that it will not become out-of-date. Specifically, it could be used for UNI's LAC course, Theatrical Arts and Society, as well as general education courses at other universities.

WAGGONER, MICHAEL, PROFESSOR, EDUCATIONAL LEADERSHIP AND POSTSECONDARY EDUCATION, 26 YEARS OF SERVICE, FALL SEMESTER

Documenting and Teaching the History of Religion and Education in the United States

This project grows out of a collaboration between the UNI College of Education and the Religious Freedom Center of the Newseum Institute in Washington, DC aimed at increasing religious literacy among educators in Iowa and nationally. The Religious Freedom Center has invited Professor Waggoner to be a Distinguished Fellow at the Newseum in fall 2016 to lead the development of one of the four hybrid on-site/distance learning courses: The History of Religion and Education in the United States. In connection with this course development, he will identify and annotate key documents for a collection that, along with his introductory essay, will be published as a documentary history of religion and education in the United States by the Religious Freedom Center and an academic publisher. The influx of immigrants to the United States, and Iowa in particular in recent years, highlights the increasing need for literacy about varied values and beliefs. There has been little systematic education for public school teachers and administrators in constitutionally appropriate treatment of religion in the schools. This project will help to close this gap by providing resources for educators throughout Iowa and the nation.

WASHUT, ROBERT, PROFESSOR, SCHOOL OF MUSIC, 34 YEARS OF SERVICE, SPRING SEMESTER

A Full-Length CD Recording of New Original Compositions and Arrangements for Jazz Dodectet

In this project Professor Washut will produce a full-length CD recording to document his original compositions and arrangements for jazz dodectet (12-piece jazz ensemble). He recently organized A Tribute to Kenny Wheeler on September 11, 2015 in Bengtson Auditorium utilizing this unusual instrumentation, which was the springboard for the current project. He plans to dedicate the spring and summer of 2017 to the composition and arranging of music for the dodectet. He will assemble a band using current UNI School of Music faculty members and outstanding alums to rehearse, perform and record this music early during the following fall semester. He will then mix and produce the CD recording, with December 1, 2017 as the projected release date. A donor has made it possible for him to pay the musicians for two rehearsals, a concert, and two days of recording, in addition to studio and production expenses. Professor Washut is an internationally recognized jazz composer. This project will benefit UNI through the positive exposure the recording will provide to the UNI School of Music. The citizens of Iowa will benefit through their support of the creation of new music by an Iowa jazz composer/arranger as well as the arts in general.

**ZEMAN, CATHERINE, PROFESSOR, HEALTH PROMOTION, 22 YEARS OF SERVICE,
SPRING SEMESTER**

Correlation Investigation of High Infant Mortality Rate Regions in Iowa: Environmental and Demographic Factors

This work hypothesizes that a number of environmental and demographic factors that can play a role in pregnancy outcome, namely drinking water exposure to lead, atrazine, nitrate, and arsenic (all problems in rural areas of Iowa) and that demographic factors such as income and access to care may be contributing singly or in combination to the higher than statewide average infant mortality rates in rural, medically underserved portions of the state of Iowa. Professor Zeman will examine the relationships between these variables and pregnancy outcome in a correlational data analysis sample of Iowa women of reproductive age. This data will be mined from a variety of preexisting data sources and correlated to explore relationships between known risk factors and infant mortality outcomes. This research will be used to develop NIH grant proposals, it will result in a manuscript to be submitted to scholarly journals, and it will be disseminated at the Iowa Governor's Conference for Public Health. It will also benefit the people of Iowa by exploring environmental issues that may play a role in high infant mortality, identify areas for further study using more robust study designs, and provide attention to the Iowa's rural reproductive health issues.