

C21 and TRESTLE Course Transformation Grants

Spring 2015

Project Leaders: Matt Baldwin (PSYC)

Department: Psychology

Courses: PSYC 415

Amount Funded: \$325

Project Synopsis: To support an autobiography photography project that will help students capture identity through photographs and use their understanding of personality to develop personality profiles based on their photographic evidence.

Project Leaders: Kathy Denning (EEB), David Hall (EEB), Mark Mort (EEB) and Trevor Rivers (EEB)

Department: Ecology and Evolutionary Biology

Courses: BIOL 152

Amount Funded: \$400

Project Synopsis: To test redesigned lab sessions for BIOL 152 with undergraduate TAs in the biology department.

Project Leader(s): Sindhu Preetham Burugupally (CEA) and Bob Lyon (CEA)

Department: Civil, Environmental and Architectural Engineering

Courses: CE 201/301

Amount Funded: \$410

Project Synopsis: To implement a design project in the CE 201/301 class and to host an event that creates a real audience for your students' work.

Project Leader(s): Meg Jamieson (FMS) and Anne Gilbert (FMS)

Department: Film and Media Studies

Course: FMS 275

Amount Funded: \$500

Project Synopsis: To support undergraduate student hourly employees with equipment and technology questions during lecture demonstrations. These undergraduates are trained in equipment safety and use and will offer students more time to actively explore the equipment and implement ideas for their labs.

Project Leaders: Susan Marshall (PSYC) and Marsha McCartney (PSYC)

Department: Psychology

Courses: PSYC 210

Amount Funded: \$428

Project Synopsis: To support the *Numbers 2 Knowledge Summit* for PSYC 210 students. This event allows students to professionally showcase and present their final projects to a real audience.

Project Leaders: Carl Luchies (ME)

Department: Mechanical Engineering

Courses: ME 320

Amount Funded: \$500

Project Synopsis: To purchase equipment that will facilitate the production of engaging, recorded lectures that students watch online before class.

Project Leader(s): Sindhu Preetham Burugupally (CEA) and Huazhen Fang (ME)

Department: Mechanical Engineering

Courses: ME 321

Amount Funded: \$380

Project Synopsis: To implement a group simulation project in the ME 321 class and to host an event that creates a real audience for your students' work.

Project Leader(s): Brad Osborne (MTHC)

Department: Music

Course: MTHC 105 and MTHC 115

Amount Funded: \$487

Project Synopsis: To support the work of an undergraduate peer tutor for MTHC 105 and MTHC 115.

AY 2015-2016

Project Leaders: Rolfe Mandel (ANTH/GEOL) and Blair Schneider (GEOL)

Department: Anthropology/Geology

Courses: ANTH 517/GEOG 532

Amount Funded: \$1000

Project Synopsis: To develop re-useable soil classification kits and to support class field trips.

Project Leaders: Trevor Rivers (EEB), Stefanie DeVito (EEB), Brad Williamson (EEB) and Bill Dentler (MB)

Department: Ecology and Evolutionary Biology; Molecular Biosciences

Courses: BIOL 100, BIOL 105, BIOL 150 and BIOL 350

Amount Funded: \$1000

Project Synopsis: To support the development of surveys in multiple biology courses that will assess students' pre- and post-course knowledge and/or attitudes about biology.

Project Leaders: Krzysztof Kuczera (CHEM) and Drew Vartia (CHEM)

Department: Chemistry

Courses: CHEM 130, CHEM 170, CHEM 190

Amount Funded: \$2500

Project Synopsis: To develop a teaching server based on the open access CHARMM- GUI tool, and design and implement interactive exercises using the tool to enhance CHEM 130, 170 and 190.

Project Leaders: Abbey Dvorak (MEMT)

Department: Music Education and Music Therapy

Courses: MEMT 296

Amount Funded: \$971

Project Synopsis: To support increasing student engagement through experiential in-class group activities that focus on analysis, synthesis, and evaluation of course material. In addition, this project will support the development of creating out-of-class video content.

Project Leader(s): Dietrich Earnhart (ECON)

Department: Economics

Courses: ECON 560

Amount Funded: \$916

Project Synopsis: To support the hire of an undergraduate peer mentor who will help employ new classroom discussion strategies in lieu of lecture during class time. The peer mentor will guide group discussion during classroom sessions as well as provide out-of-class support for students on their homework assignments.

Project Leader(s): Annette Tetmeyer (EECS) & Rassul Saeedipour (EECS)

Department: Electrical Engineering and Computer Science

Courses: IT 410, 416, and 490

Amount Funded: \$2500

Project Synopsis: To support the development and evaluation of four online modules that introduce students to software tools that are commonly-used across several IT courses, and develop hands-on in-class activities that make use of the tools in IT 410, and make the modules available for future use in IT 416 and 490.

Project Leader(s): Andrew McKenzie (LING)

Department: Linguistics

Courses: LING 331

Amount Funded: \$987

Project Synopsis: To support the hire of an undergraduate student to develop out-of-class course components that will enable the repurpose of in class time for collaborative and active learning.

Project Leader(s): Ward Lyles

Department: Urban Planning Program

Courses: UBPL 300

Amount Funded: \$996

Project Synopsis: To hire a graduate student assistant to support the redesign of several course modules, as well as purchase books on learning and pedagogy and materials for an end-of-semester student project showcase in Spring 2016.

Project Leader(s): Michael Murrery (PHSX) and Chris Bruner (PHSX)

Department: Physics

Courses: PHSX 114 and PHSX 115

Amount Funded: \$1000

Project Synopsis: To support the hire of an undergraduate hourly assistant to help develop "MCAT-like" quizzes for these two classes. The goal of these quizzes is to better align the content and skills taught in the courses with what students need to be able to do when taking the MCAT.

Project Leader(s): Holly Storkel (SPLH)

Department: Speech-Language-Hearing: Sciences and Disorders

Courses: SPLH 261

Amount Funded: \$1000

Project Synopsis: To support the work of a lecturer to incorporate active learning pedagogy that will facilitate student learning of foundational concepts and skills for increased success in downstream courses. The lecturer will simultaneously developing an online version that will be taught in future semesters that also integrates these active learning components.

Summer 2016

Project Leader(s): Abbey Dvorak (MEMT)

Department: Music Education and Music Therapy

Course: MEMT 814

Amount Funded: \$624

Project Synopsis: To hire a student to assist with the development of an interactive online version of this course, as well as purchase equipment and technology for the course design.

Project Leader(s): Amy Rossomondo

Department: Spanish and Portuguese

Course: SPAN 104 and SPAN 111

Amount Funded: \$2500

Project Synopsis: To support graduate student instructors in the redesign of these courses in preparation for the adoption of new materials.

Project Leader(s): Bob Lyon (CEA)

Department: Civil, Architectural and Environmental Engineering

Course: CE 495/895

Amount Funded: \$2000

Project Synopsis: To support student hourly assistants to develop online modules and in-class group collaborative activities.

Project Leader(s): Brad Osborne (MTHC)

Department: Music

Course: MTHC 105 and MTHC 115

Amount Funded: \$650

Project Synopsis: To hire a graduate student to make iterative improvements to these two courses based on an analysis of student performance from the initial redesign.

Project Leader(s): Cindy Colwell (MEMT)

Department: Music Education and Music Therapy

Course: Music Therapy Curriculum Redesign

Amount Funded: \$5000

Project Synopsis: To redesign the Music Therapy curriculum to address the *Professional Competencies* developmentally.

Project Leader(s): Jennifer Weber (HIST)

Department: History

Course: HIST 412

Amount Funded: \$1500

Project Synopsis: To hire a student assistant to help identify additional course materials that will be integrated into the class learning activities.

Project Leader(s): Joe Brennan (MATH)
Department: MATH
Course: MATH 125, MATH 126, and MATH 127
Amount Funded: \$2500

Project Synopsis: To support graduate student assistants in reorganizing the calculus sequence and learning objectives to fit a new textbook, develop active classroom activities and GTA guides, and create short video tutorials to replace in-class lecture time.

Project Leader(s): Missy Shabazz (MATH)
Department: Math
Course: MATH 104 and MATH 127
Amount Funded: \$2000

Project Synopsis: To support graduate student assistants who will help with several redesign activities, including transforming MATH 104 into a flipped format, realigning the course learning objectives and creating a video library for MATH 127.

Project Leader(s): Marsha McCartney (PSYC)
Department: Psychology
Course: PSYC 104 and PSYC 210
Amount Funded: \$2500

Project Synopsis: To hire graduate student hourly support for collecting learning data from multiple assessment formats and for creating repositories of learning activities.

Project Leader(s): Nancy Brady (SPLH)
Department: Speech-Language-Hearing: Sciences Disorders
Course: SPLH 660
Amount Funded: \$640

Project Synopsis: To hire student hourly assistants to help create video lectures, translating activities and grading rubrics to be used in a hybrid version of the course.

Project Leader(s): Matt Fadden (CEAE)
Department: Civil, Architectural and Environmental Engineering
Course: CE 310
Amount Funded: \$750

Project Synopsis: To update online course materials and enhance video lectures for CE 310 in ways that align with active learning components already incorporated into class time.

Project Leader(s): Pam Gordon (CLSX)
Department: Classics
Course: Ancient Greek 104
Amount Funded: \$1200

Project Synopsis: To hire student hourly support to revise and implement online exercises in a new hybrid version of the course.

Project Leader(s): Steve Warren (SPLH) and Stephanie Becker (SPLH)
Department: Speech-Language-Hearing: Sciences Disorders
Course: SPLH 842
Amount Funded: \$1000

Project Synopsis: To support graduate student assistance in creating recorded lectures and product-based learning activities that will better prepare graduates for work in early intervention settings.

Project Leader(s): Will Collins (CEAE)

Department: Civil, Architectural and Environmental Engineering

Course: CE 562

Amount Funded: \$960

Project Synopsis: To engage in comprehensive backwards design and improved alignment of the lecture and lab components in CE562.

AY 2016-2017

Project Leader(s): Matt Fadden (CEAE), Remy Lequesne (CEAE), & Molly McVey (SoE)

Department: Civil, Architectural and Environmental Engineering

Course: CE 310

Amount Funded: \$2500

Project Synopsis: To create online video labs with time-lapsed footage (and associated materials) to make better use of student time in experiments with substantial waiting time, in CE 310.

Project Leader(s): Bob Lyon (CEAE) & Molly McVey (SoE)

Department: Civil, Architectural and Environmental Engineering

Course: CE 301

Amount Funded: \$2000.

Project Synopsis: Develop several new in-class active learning modules to foster a more dynamic classroom environment, and incorporate online homework into CE301.

Project Leader(s): Juan Bravo-Suarez (C&PE), Andrew Duncan (C&PE), David Griffin (C&PE), & Molly McVey (SoE)

Department(s): Chemical and Petroleum Engineering

Course: C&PE 616

Amount Funded: \$2568

Project Synopsis: As part of a larger effort to redesign and increase coordination across multiple sections of C&PE 616, funds will be used to hire small groups of students to pilot test several designed-based activities that will prepare students for the laboratory activities.

Project Leader(s): Lin Liu (ME), Carl Luchies (ME), Huazhen Fang (ME), & Molly McVey (SoE)

Department: Mechanical Engineering

Courses: ME 211 and 320

Amount Funded: \$3000.

Project Synopsis: Develop online, interactive learning modules that help ensure that students have the foundational physics and math concepts for mechanical engineering, and can be flexibly deployed in multiple engineering courses.

Project Leader(s): Thomas DeAgostino (ME), Lorin Maletsky (ME), & Molly McVey (SoE)

Department: Mechanical Engineering

Courses: ME 208 and 228

Amount Funded: \$1500.

Project Synopsis: Incorporate additional learning activities and assignments to scaffold the development of student presentation skills.

Project Leader(s): Krzysztof Kuczera (CHEM)

Department: Chemistry

Course: CHEM 525

Amount Funded: \$2000

Project Synopsis: To hire a student to help develop exercises that enhance student understanding of molecular behavior at the microscopic level.

Project Leader(s): Tracey LaPierre (SOC) and ChangHwan Kim (SOC)

Department: Sociology

Course: SOC 510 and SOC 812

Amount Funded: \$1496.47

Project Synopsis: To purchase equipment/software and hire a graduate student to develop online videos and tutorials to supplement or replace in-class lectures and to enhance in-class time.

Project Leader(s): Trevor Rivers (EEB)

Department(s): Ecology and Evolutionary Biology

Course: BIOL 350

Amount Funded: \$3000

Project Synopsis: To hire a graduate student to help develop, adapt, and implement case studies that align with course/curriculum goals and objectives, and to run mini-summits with faculty and staff from both the Lawrence and Edwards campuses.

Project Leader(s): Sharon Billings (EEB and KBS), Amy Burgin (EVRN, EEB and KBS), Dan Hirmas (GEOG), Terry Loecke (EVRN and KBS), Pamela Sullivan (GEOG), and David Fowle (GEOL)

Department: Biology

Courses: GEOL 591/BIOL 419/EVRN 420

Amount Funded: \$3000.

Project Synopsis: To enlist the help of a current expert to help your team develop a new course with modules that use active and interdisciplinary learning strategies to help students meet course learning goals.

Project Leader(s): Jennifer Delgado (PHSX), Michael Murray (PHSX), Chris Fischer (PHSX), Gregory Rudnick (PHSX) and Chris Bruner (PHSX)

Department: Physics

Courses: PHSX 111, PHSX 114, PHSX 115, PHSX 211, PHSX 212, PHSX 213, ASTR 191, ASTR 293, ASTR 391

Amount Funded: \$1500.

Project Synopsis: To hire an undergraduate student to assist in developing a repository of videos and quizzes to introduce physics and astronomy lecture demonstrations in multiple courses.

Summer 2017

Project Leader(s): Susan Marshall (PSYC)

Department: Psychology

Courses: PSYC 210

Amount Funded: \$1308

Project Synopsis: To hire a student to assist with redesigning homework assignments and quizzes to better align with the exams as well as build homework content into the Blackboard framework. In addition, this student will collect and examine gradebook data from previous semesters to inform further redesign efforts.

Project Leader(s): Genelle Belmas (JOUR)

Department: Journalism

Course: JOUR 618

Amount Funded: \$1000

Project Synopsis: To hire a consultant to help develop a law game that will enhance student learning, promote greater student engagement and deepen learning. This game will be designed so that it can be incorporated into an online version of the course that is also being developed.

Project Leader(s): Mary Hill (GEOL), Josh Roundy (CEA), Randy Stotler (GEOL), Andrea Brookfield (KGS), Geoff Bohling (KGS) and Erik Van Vleck (MATH)

Department: Geology/Civil Engineering

Course: GEOL 751/CE 752

Amount Funded: \$3000

Project Synopsis: To hire a graduate student to help design modules that use active learning to teach quantitative methods that can be used in multiple water resources courses.

Project Leader(s): Ludwin Molina (PSYC)

Department(s): Psychology

Course: PSYC 492

Amount Funded: \$1000

Project Synopsis: To develop a service learning component in *Psychology and Social Issues* that will enhance student engagement and learning in the course.

Project Leader(s): Bruce Liese (PSYC)

Department: Psychology

Courses: PSYC 533

Amount Funded: \$1000.

Project Synopsis: To hire student assistants and/or purchase equipment to support the development of a video-recorded role-playing assignment in the course to deepen student understanding of addiction.

Project Leader(s): Carl Luchies (ME) and Molly McVey (SoE)

Department: Mechanical Engineering

Courses: ME 320

Amount Funded: \$2889

Project Synopsis: To hire a graduate student to assist with designing new homework sets that are more concept-oriented and include open-ended problems to increase the range of complexity, as well as creating rubrics and solution videos for the new homework sets.

Project Leader(s): Abby Dvorak (MEMT)

Department: Music Education and Music Therapy

Courses: MEMT 455

Amount Funded: \$938

Project Synopsis: To purchase books and hire a student to assist with the development of a course-based undergraduate research experience.