



FACULTY INNOVATION GRANT (FIG) 2021-2022

The Faculty Innovation Grant Program is a College-wide program that award grants to fulltime and adjunct faculty. The amount of available funding and types of work supported remains unchanged, but applicants can now focus on the development, implementation and sharing of their instructional innovation rather than managing multiple grant applications in a single academic year. The FIG will be used to provide support for faculty to design and implement new tools, resources, or techniques in their classroom (or virtual classroom) to enhance instruction and increase student learning outcomes.

Eastern Campus Committee Members

Kim Johnson - Assistant Dean, Academic Affairs (co-chair)

Chris Kinsella - Assistant Professor, History (co-chair)

Ellen Bratslavsky - Associate Professor, Psychology

Sonja Elekhtaby - Adjunct Services Manager

Sara Ehret-Adjunct Faculty, English

Silvana Hrepic - Associate Professor, Spanish

Samantha Posey - Assistant Professor, Counseling

Andy Sokolich - Recruitment Specialist

Scott Trimmer - Campus Director, Learning Commons

Heather Young - Instructional Technologist

Metropolitan Campus Committee Members

Adam Dilulio - Assistant Dean, Academic Affairs (co-chair)

Mary Thompson - Associate Professor, Librarian (co-chair)

Karen Cross-Hatten - Adjunct Services Manager

Alethea Ganaway - Program Manager, Additive Manufacturing & Ideation Station

Brian Hall - Associate Professor, English

Pamela Regrut - Sr. Instructional Designer

Cathleen Rossman - Associate Professor, Mathematics

Richard London - Assistant Professor, Biology

Cindy Shick - Specialist, ERP Solutions

Western Campus Committee Members

Timothy Elsey - Assistant Dean, Academic Affairs (co-chair)

Kevin Kondik - Assistant Professor, Philosophy (co-chair)

Lina Agha - Adjunct Faculty, Nuclear Medicine

Raymond Anderson - Integration Technician

Angela Baker - Adjunct Services Manager

Elaine Brunschwig - Professor, Biology

Lois Hansen-Polcar - Professor, Chemistry

Kevin Dranuski - Sr. Instructional Designer

Westshore Campus Committee Members

Lisa Friel - Assistant Professor, English as a Second Language (co-chair)

Robin Williams - Assistant Dean, Academic Affairs (co-chair)

Kevin Dranuski - Sr. Instructional Designer

Alaina Foster - Interim, Adjunct Services Manager

Jonathan Tarnai - Director, Learning Commons

2021-2022 Faculty Innovation Grant (FIG) Awardees

Eastern Campus

Chris Faciana - Program Director, Sports Exercise Studies & Adjunct Faculty, Sports Exercise Science

Jim Funai - Assistant Professor, Plant Science Technology

Haidy Kamel - Associate Professor, Chemistry

Metropolitan Campus

Rebecca Carte - Assistant Professor, Spanish

Michelle Florencki - Assistant Professor, Dental Hygiene

Kendra Knight-Adjunct Faculty, Dental Hygiene

Anne Myatt - Program Director, Dental Hygiene & Joan Tischler - Assistant Professor, Dental Hygiene

Sharyse Jones - Program Manager, Human Services

Melanie Shearer - Associate Professor, Medical Assisting

Joy Whitbred-Lab Manager, Life Physical Sciences

Steven Kosztia-Adjunct Faculty, Chemistry

Western Campus

Catherine Bloor - Assistant Professor, Nuclear Medicine

Mardy Chaplin - Assistant Professor, Paralegal Studies & Daniel Newman - Adjunct Faculty, Paralegal Studies

Ted Schafer - Associate Professor, Automotive Technology

Holly Clemens-Professor, Physical Education, Christine Phillips - Assistant Professor, Physical Education &

Sabrina Cali - Adjunct Faculty, Health

Michelle Davis - Assistant Professor, Earth Science

Eric Olson - Adjunct Faculty, Anthropology

Westshore Campus

Mary Ann Bradfield - Program Director, Hospitality Management, Hospitality

Bradley Lipinski - Associate Professor, Philosophy, Westshore & Margaret Lehnert - Assistant Professor, Biology, West

Ann Marie Yunker - Associate Dean, STEM

Eastern Campus Faculty Innovation Grant (FIG) Awardees

Chris Faciana - Program Director, Sports Exercise Studies & Adjunct Faculty, Sports Exercise Science

“New Fitness Testing Device Enhances Student Experience”

The Trackmaster TMX428CP Treadmill is a laboratory device used in conjunction with a metabolic cart to perform VO2 max testing. The Sport and Exercise Studies (SES) program at the Eastern Campus has many proposed uses of this device. The program plans on using the Trackmaster for the Exercise Testing and Prescription courses (beginner and advanced) to enhance student learning. This device will also expand the services offered in the SES program's Fitness Testing and Training Center (www.tri-c.edu/fitness). Tri-C students, athletes, employees, and the general public can all gain access to this specialized testing device. The SES lab at the Eastern Campus currently offers cycle ergometry VO2 max testing, and the addition of the Trackmaster will add a running option (for participants who mainly use running as a mode for exercise).

Jim Funai - Assistant Professor, Plant Science Technology

“Lab Communication Upgrade to Mesh Technology”

The Tree Care Industry has a strong focus on safety and communication on the job site all while operating very loud machines. This grant pushes the PST Program to the forefront of technology by using specific helmets integrated with a Mesh Technology Intercom system with built-in hearing protection and noise-canceling microphones. This technology is utilized by the industry they are training to enter and will improve the learning opportunities in four different lab courses in the PST program.

Haidy Kamel - Associate Professor, Chemistry

“ChemDraw to Visualize Three Dimensional Molecules and Molecular Interactions”

This project will explore animation using computer-generated visualizations of organic molecules. Animations will be used to clarify information that is essentially static (e.g. rotating a computer-generated molecular model) and to visualize the dynamics of molecular interactions which are at the heart of chemistry.

Metropolitan Campus Faculty Innovation Grant (FIG) Awardees

Rebecca Carte - Assistant Professor, Spanish

“Storybird & Time2Talk”

This project will contribute greatly to student success in Spanish while also allowing for authentic assessment. Both will also help to keep students engaged and allow them to express themselves creatively, applying their language learning to real-world activities. They are also both easily accessed online and with an app. This project will contribute greatly to student success in Spanish while also allowing for authentic assessment. Both will also help to keep students engaged and allow them to express themselves creatively, applying their language learning to real-world activities. This will allow students to take control of their learning and really personalize it. They will also be able to share these materials when applying for four-year schools, honor programs, employment, and volunteer opportunities. In this way, the platforms allow for ongoing reflection, *, and* learning outcome assessment.

Michelle Florencki - Assistant Professor, Dental Hygiene, **Kendra Knight**-Adjunct Faculty, Dental Hygiene, **Anne Myatt** - Program Director, Dental Hygiene & **Joan Tischler** - Assistant Professor, Dental Hygiene

“Virtual Dental Hygiene Observation Experience Video”

An asynchronous virtual dental hygiene clinic observation experience will allow for prospective dental hygiene students to witness first-hand the specific tasks and responsibilities involved in the provision of dental hygiene care, view what it is like to treat patients as a dental hygiene student clinician, and learn more about the dental hygiene profession & the dental hygiene program at Tri-C. Due to the COVID-19 pandemic, in-person observations are no longer permitted. The virtual dental hygiene observation video experience will replicate the aspects of the in-person observation. Using technology, the virtual observation video will allow students to participate from anywhere and at any time providing greater access and consistency of the learning experience. Knowledge of the details of dental hygiene care and the dental hygiene profession along with time spent engaged in observational learning will lead to enhancement of student success in dental hygiene clinical courses.

Sharyse Jones - Program Manager, Human Services

“Human Services Hybrid Classroom Soundbar Innovation”

The Human Services Program learned during the COVID-19 pandemic that in addition to having students that are primarily comfortable taking classes face-to-face on campus there is also a sizeable subset of students that prefer taking classes in the synchronous online modality. In response, one Human Services course offered in the DWS modality during the Fall 2021 semester is being live-streamed from a classroom on campus, giving students the option to log in remotely or to attend class on campus. Students logged into the course remotely have provided feedback that they have experienced difficulty hearing all of the in-classroom discussion, especially comments from students that are furthest away from the instructor and microphone built into the existing computer system. The purpose of this project is to purchase a soundbar and portable floor stand that can be used to effectively capture the full range of in-classroom discussion that occurs when instruction is provided in this modality.

Melanie Shearer - Associate Professor, Medical Assisting

“Spirometry for Medical Assistants”

The medical assisting program at Tri-C is accredited through CAAHEP/MAERB. One of our accreditation requirements is to have the students perform a spirometry assessment to show competence in pulmonary diagnostics in the affective and psychomotor domains (CAAHEP Competencies I.P. 2. d. Perform pulmonary function testing, I. A. 2. Incorporate critical thinking skills when performing patient care, I. A. 3. Show awareness of a patient's concerns related to the procedure being performed). The purchase of two spirometers will meet the requirement for these competencies by allowing students to perform the testing in the classroom environment.

Melanie Shearer - Associate Professor, Medical Assisting

“Mannequin Arms for Medical Assisting Phlebotomy”

Mannequin phlebotomy arms are an essential piece of equipment when teaching phlebotomy. The arms allow students to perfect their skills in phlebotomy before attempting blood collection on a patient. Adding this extra level of safety benefits not only the students but also the instructors. The mannequin arms are easy to maintain and store and require very little financial assistance over the years of use. By purchasing these smaller units, the MA program can add additional opportunities for students to learn phlebotomy procedures while reducing student anxiety.

Joy Whitbred-Lab Manager, Life Physical Sciences & **Steven Kosztia**-Adjunct Faculty, Chemistry

“Vernier Equipment Update - Chemistry”

This proposal is being submitted in support of updated equipment and technologies for our chemistry laboratories. The existing data handling equipment is more than ten years old, and no longer reflects the current precision found in most analytical equipment, nor in the equipment found in the commercial laboratories in modern processing or manufacturing facilities. The technology inherent in the new equipment will make the use of supportive laptops and other IT peripherals unnecessary. The time saved in lengthy periods of data analyses would be used to promote a higher level of comprehension of the chemistry concepts.

Western Campus Faculty Innovation Grant (FIG) Awardees

Catherine Bloor - Assistant Professor, Nuclear Medicine

“Co-57 Flood Source”

The gamma camera located in the Nuclear Medicine lab is used to teach the students how to position a patient and is also used for various projects. Through the use of the gamma camera the students learn skills that will enhance their didactic teachings. The camera must have daily quality control procedures completed on it before use for the class day. A cobalt-57 (Co-57) source is needed to complete the quality control on the camera.

Mardy Chaplin - Assistant Professor, Paralegal Studies & **Daniel Newman** - Adjunct Faculty, Paralegal Studies

“Virtual Paralegal Repository”

Through previous Tri-C grants and faculty initiatives, videos and electronic database resources have been created for specific course usage. However, many of these electronic resources have "cross-course" applications or would be useful to paralegal students through an "on-demand" environment. Additionally, the Cleveland Metropolitan Bar Association (CMBA) is willing to partner with the Paralegal Program to provide training videos that would be beneficial to our paralegal students. The creation of a repository for paralegal students to access professionally created resources will be a tremendous benefit to our students as the Paralegal Program has committed itself to 100 percent online delivery.

Ted Schafer - Associate Professor, Automotive Technology

“Forced Induction Engine Diagnosis”

As many manufacturers have moved to smaller displacement turbocharged engines, technicians need to be able to properly diagnose leaks in the pressurized portion of the system for leaks as they deliver air into the intake manifold. Leaks in the system can be hard to pinpoint as the various systems only deliver boost under hard acceleration. With that in mind, aspiring technicians (students) need to learn new diagnostic skills to service these forced induction systems which are used in almost 40% of the vehicles sold over the past several years. These skills are now being integrated into our AUTO 2400 engine performance and auto 2450 engines controls class. 30 to 40 students per year will benefit from this project.

Holly Clemens-Professor, Physical Education, **Christine Phillips** - Assistant Professor, Physical Education &

Sabrina Cali - Adjunct Faculty, Health

“Cutting Edge Fitness and Performance Technology and Equipment”

This project is about exposing students to some of the cutting-edge fitness and performance flywheel training equipment in the exercise science, physical education, and athletic disciplines. Students will learn proper instruction of the equipment, have an opportunity to instruct PE students and student-athletes how to use the equipment, and complete assignments, workout programs, and instructional videos showcasing the equipment to the college and the community. Not having access to equipment creates a barrier to academic, employment and personal success. The College's Strategic Plan of student access and student success would be fulfilled with the addition of this equipment. The ability to equip the labs with the latest cutting-edge equipment will help ensure students enhance their knowledge and skillset to be successful in exercise science, fitness, and sport performance professions.

Michelle Davis - Assistant Professor, Earth Science

“Weather Balloons, Geospatial Data and More!”

This instructional technology requested will fulfill the need to enhance the online experiences in my Earth Science Courses. In web-based classes, recording lectures for content delivery is an integral part of my instruction. With the requested camera and accessories, my filmed lectures can include experiences from the field that my student’s might not have the chance to experience otherwise. By capturing images and videos of landscape, processes, and phenomena, I will be able to integrate real-life material into my course content. I am also requesting a Weather Balloon kit for experiential opportunities in order to observe, create and manage scientific data. Real-world earth science processes with data that will e integrated into assessments will contribute to student success. The project developed using this equipment will correlate with the course outcomes and objectives. This would also be a wonderful opportunity to create some positive media for Tri-C!

Eric Olson - Adjunct Faculty, Anthropology

“Anthropology Collections for Teaching (ACT)”

The Anthropology Collections for Teaching (ACT) project will provide newly digitized materials that can be used for what I call “virtual kinesthetic” learning activities. The anthropology collections are under-utilized in course learning outcomes. Given the large volume of online students, these collections would best be used in a digitized format, allowing students to remotely learn from these materials. The project will generate new digitized models (2D scans/photos and 3D models via photogrammetry) of objects in the anthropology collections. The project will create a digital repository for these newly generated models to use in courses. The long-term goal of ACT is to provide students with data that may be used for class research/projects. Many of the collections still need cataloging, inventorying, photographing, cleaning, and analysis. These are all opportunities for class-specific research in liberal arts.

Westshore Campus Faculty Innovation Grant (FIG) Awardees

Mary Ann Bradfield - Program Director, Hospitality Management, Hospitality

“Micro-Farming for Health, Sustainability and Career Readiness”

The Micro-Farm expands the student’s knowledge base of garden-to-table in a healthy and sustainable way. Faculty will have the unique opportunity to instruct students on a type of food-growing process that is innovative, timely, and cutting edge in the food industry. In addition to reducing our carbon footprint, micro-farming uses no pesticides and alleviates concerns with seasonal pricing and availability and the sustainable product has a much greater nutritional value than the same produce grown on a traditional farm. The technology involved with the Micro-Farm unit is cloud-based and can be managed remotely with minimal time spent monitoring the unit, minimizing instructor supervision.

Bradley Lipinski - Associate Professor, Philosophy, Westshore & **Margaret Lehnert** - Assistant Professor, Biology, West

“Teaching Critical Thinking through Interdisciplinary Collaboration: A Pilot Project”

Teaching topics from an interdisciplinary standpoint allows students to integrate information from various perspectives before formulating opinions and executing decisions. The purpose of this project was to form a collaborative teaching module between philosophy and biology disciplines which includes philosophical moral reasoning and reflection around a biological experiment analyzing the protein and lipid content found in animal and nut milks. Collaborators plan to demonstrate the value and viability of the pilot module by generating and disseminating a model for interdisciplinary faculty course collaborations. We expect this project will encourage students to better understand the critical process of thinking to include more than gathering facts relating to their respective field of study and integrating as many perspectives as possible before formulating opinions and executing decisions.

Ann Marie Yunker - Associate Dean, STEM

“Body Visible: Improving Active Learning and Student Success Through Virtual Simulations”

How can we make the study of anatomy and physiology fun and interactive in a virtual world, while ensuring accessibility and maintaining course rigor? The implementation of easy-to-use, active-learning software tools such as Visiblebody may help. Every student in an online section of Biology 2331 will receive a 2-year subscription to Visiblebody, a suite of active-learning tools including virtual dissections of body systems, robust annotation abilities, and accurate narrated simulations of complex biological processes. Students will use the software in addition to course materials used previously in Biology 2331, and both formative and summative assessments will be used to determine if increased student engagement and/or improved student outcomes (pass rate and grade distribution) are observed compared to a section of students with the same course materials except Visiblebody.