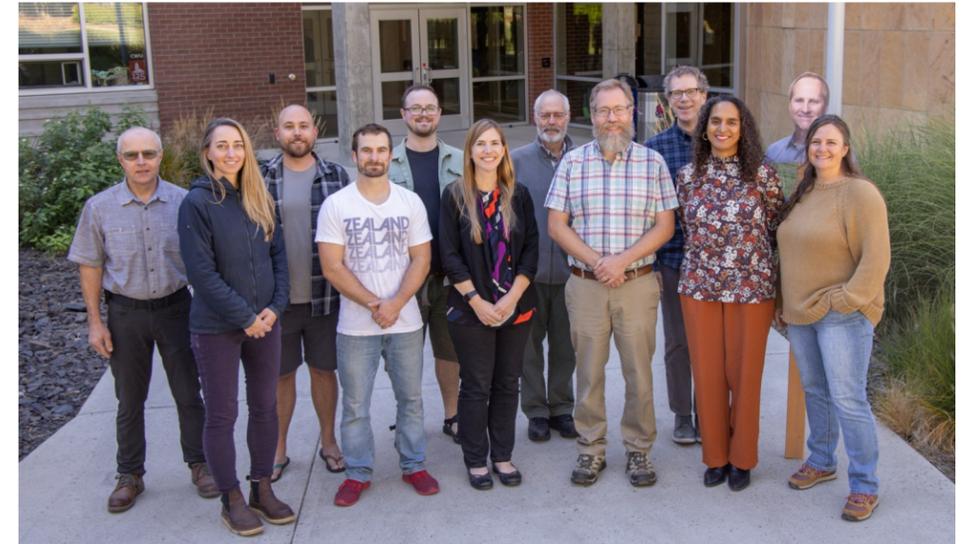


PHYSICS DEPARTMENT NEWSLETTER : LETTER FROM THE CHAIR

Dear CWU Physics
Alumni and friends,

The 2023-2024 academic year was an exciting time for the CWU Physics Department. We launched a reinvigorated Physics/Engineering Dual Degree Program in partnership with Washington State University and have begun to recruit new students into this program,



Left to right: Peter Zencak, Darci Snowden, Nathan Kuwada, Addison Wenger, Nathan Chapman, Erin Craig, Michael Braunstein, Benjamin White, Bruce Palmquist, Deanna Marshall, Andrew Piacsek, Rachel Foss

which provides a seamless pathway to bachelor's degrees in physics and engineering. We bolstered our Biophysics Specialization degree program with an industry partnership with the Northwest Medical Physics Center, providing students with hands-on opportunities to explore biomedical career opportunities in physics. Students pursuing careers in the aerospace industry worked directly with an industry mentor from Blue Origin as part of the NASA launch competition. In this newsletter, we feature the debut of a new radiation physics lab that is a centerpiece of our collaboration with the Northwest Medical Physics Center to deliver curriculum related to Medical Physics.

We extend our heartfelt thanks to all the alumni and friends of the department who connected with us this year. Thank you to everyone who presented in this year's Physics Career Seminar series. This was an incredible opportunity for students to learn about real careers they can pursue with their physics degrees. We are deeply grateful to Paul and Jill Heydron for their generous support of students through the Paul & Jill Heydron Scholarship. Thank you to Tami King of Blue Origin for mentoring our NASA launch team. Thank you to our friends and colleagues of the Northwest Medical Physics Center for engaging with CWU students about career opportunities in your industry.

Please stay in touch. We are always glad to hear how you have been doing over the years. One way to stay connected with the department is to join the LinkedIn group for CWU Physics Alumni, Students, Faculty, & Staff (see QR code). If you are interested in visiting the department or presenting in an upcoming career seminar, please email us at physics@cwu.edu.

All the best,

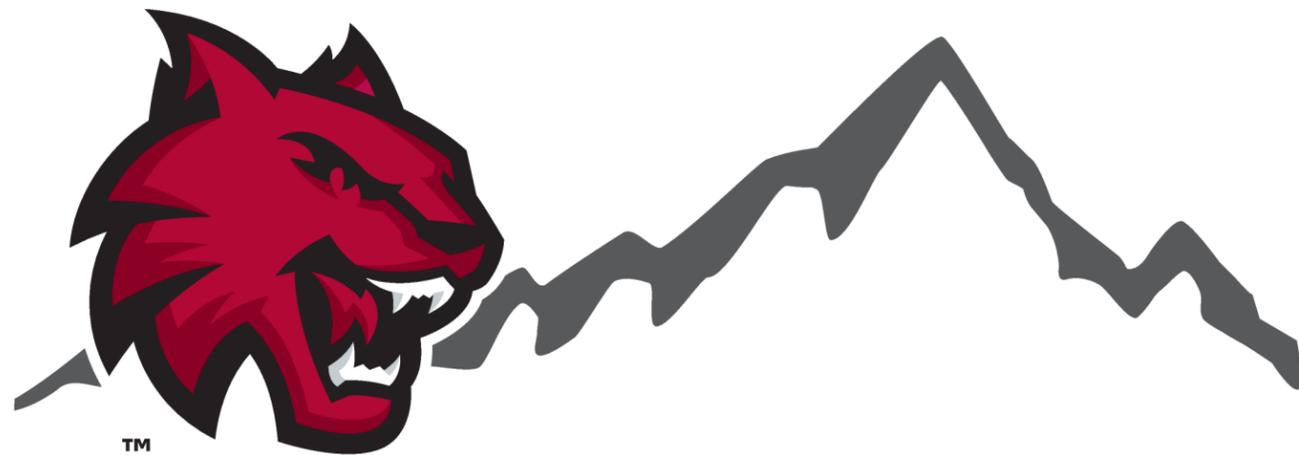
Erin Craig

Erin M. Craig



We'd love to hear from you! Please send your updated contact information to physics@cwu.edu.

Want to learn more about us? Visit www.cwu.edu/physics



PHYSICS

CENTRAL WASHINGTON UNIVERSITY

NEW LAB: CWU PHYSICS PARTNERS WITH NORTHWEST MEDICAL PHYSICS CENTER

We are excited to announce that we now have a medical physics lab! The lab is founded and pioneered by Dr. Miron Zaini, Executive Chair at Northwest Medical Physics Center and Visiting Professor of Physics at CWU. Over the past few months Dr. Zaini has been working with students Nic Boyles, Bobby Campbell, Christian Laurent, and Akshara Saha to design and fabricate a 20kV linear particle accelerator in the form of a cathode ray tube, an essential piece of equipment for future experiments. Working with limited funding, they have created the CRT out of easily obtainable materials such as PVC, tungsten welding rods, and copper pipe and relied on the manufacturing expertise of Department Tech Peter Zencak. The medical physics team first fired up the CRT in January and spent the next several months troubleshooting to produce stable beam current and to characterize the system performance relative to established theory. The team has presented at the campus SOURCE Symposium and the annual American Association of Physicists in Medicine (AAMP) conference and will present at the International Symposia on Radiation Physics this September in Lisbon. By participating in this ongoing project, students gain experience with the types of technologies employed by Medical Physicists in clinical settings. View full article using QR or link:

<https://www.cwu.edu/about/media-resources/news/2024/4/partnership-with-northwest-medical-physics-center-helps-cwu-fill-growing-industry-need.php>



NMPC staff, hospital staff and CWU faculty met in Hood River County, Oregon, to present the hospital radiation equipment for the new lab. From left: Jay Deisler, Peter Zencak, Behrad Alavi, Erin Craig, Miron Zaini, and Chris Aguilera

CAREER SEMINARS 2023-2024

M. Miron Zaini, Ph.D.,
Northwest Medical
Physics Center and
CWU Physics

Josie Fenske, CWU Alum 2020, NSF NoirLab

Jerome B. Johnson,
CWU Alum 1972,
Coupi Inc.

Henry Reinhardt,
CWU Alum 2022, Lockheed Martin

David Beuhler, CWU Alum 2019, Medim-pact

Trent English, CWU Alum 2019, Los Alamos

Aristotle Martin, CWU Biophysics Student 2019, Ph.D. Candidate, Duke Biomedical Engineering

Colby Neal, CWU Alum 2012, Intel Corp

Jacob Ferong, CWU Alum 2017, Intel Corp

Ben Freeman, CWU Alum 2016 Intel Corp

We'd love to hear from you! Send an email to physics@cwu.edu if you'd like to visit, give a seminar, or connect over zoom.



DEPARTMENT HIGHLIGHT: PETER ZENCAK, INSTRUCTION AND CLASSROOM SUPPORT TECHNICIAN III (2014-PRESENT)

Ask people to share a story about their work colleague Peter Zencak and they'll often lead with a non-work story. Because Peter treats people like family and not co-workers. He's always ready to provide a helping hand or a helping snack, such as a Snickers bar or a 50-year-old war ration.

Born in the former Czechoslovakia, Peter liked to tinker as a child. He would spend time at the local dump, searching for parts of Soviet machinery he could use in his projects. When he realized the government's philosophy didn't mesh with his, he defected as a teenager, spending 6 months in a refugee camp in Italy. He was sponsored by the International Rescue Committee and eventually sent to San Diego by way of Ellis Island. From there, he moved to Hawaii, where he worked as a tree trimmer. On one job, he cut through a beehive with a chainsaw and endured 80+ bee stings while climbing down the tree, still carrying the chainsaw! He left Hawaii to catch fish in Alaska. Unfortunately, he worked for a skipper that greatly underpaid his crew. Moving to Washington state, he put his engineering skills to good use with a job in the telecom industry that included climbing signal towers. Thankfully, these were mostly free of beehives. After tiring of the Seattle area, he finally moved to Kittitas County and CWU.

Peter still tinkers. But now the products benefit CWU students and staff. Peter

built custom parts for the observatory spectrograph project. On this project, and all others, he functions on an "ask and you shall receive" basis. While going stir



crazy during the COVID-19 pandemic, Peter custom designed an impedance tube for the acoustics lab. According to Professor Andy Piacsek, "not only was [the tube] ingeniously designed and highly functional, but it looked like it belonged in a museum, with beautiful hardwood frame pieces." Peter also shares his talents off campus teaching a local Cub Scout Pack about compass navigation. As evidenced by the beehive encounter, no task is beyond consideration. When the department's first ever high-altitude balloon payload splashed down in Potholes Reservoir, Peter changed into his shorts to retrieve it.

Peter is still a tinkerer, just like his childhood self, no matter what the request and no matter what the wardrobe. His colleagues are happy he is still willing to be underpaid for his vast skillset, just like with his old fishing job.