UNIVERSITY OF SOUTHERN INDIANA®

Bronstein Center for Healthy Aging and Wellness

Dr. Ryan Integlia

This spring, explore AI at USI like never before!

HP 490: Applications of Artificial Intelligence/Machine Learning in Healthcare

This three-credit hour USI course will be offered in Spring 2025, and it is open to students of all majors. Learn how the ethical use of Artificial Intelligence and Machine Learning fit in the healthcare environment. We will explore technology concepts to increase communication, participation and accessibility among patients and residents.

Registration

Register for HP 490 as a Spring 2025 course through the student registration portal (CRN: 11863). No prerequisites required. Open to all majors.

Course Details

🗓 Mondays and Wednesdays, Spring 2025

🕐 3:30 - 4:45 p.m.

📍 HP 3053

Interested in learning more?

Attend the informational session!

- Wednesday, October 16
- 3:30 - 4:30 p.m.
- USI Traditions Lounge

FREE FOOD!

Meet the professor, learn more about the course, and enjoy a **FREE** dinner!

To learn more, visit our website at usi.edu/healthyaging/HP490

Full Course Description

Artificial Intelligence/Machine Learning (AI/ML)-enabled technologies have the unique potential to improve health outcomes by minimizing misdiagnosis, enhancing patient access and increasing monitoring capabilities and support for healthcare practitioners. This introductory course will explore AI/ML-enabled tools and their applications in healthcare, with a particular emphasis on remote monitoring for rehabilitation and wellness, or "telerehabilitation." Telerehabilitation models have been shown to enhance accessibility of healthcare technology for low income and aging populations. Studies also demonstrate that self-management via mobile and telehealth technologies improve overall outcomes in patients. In this course, we will introduce platforms for enhanced remote monitoring via wearable devices (smart watches), augmented reality (AR) systems, robotics and/or digital twin (DT) technology. Our overall goal is to demonstrate how these tools, when integrated with AI/ML-enabled systems, can be utilized to enhance patient participation and accessibility, and improve patient-practitioner communication.

Contact Yaw Bredwa–Mensah at ybredwamen_se@usi.edu

LEARN MORE

About Dr. Integlia

Dr. Ryan Integlia

Associate Professor of Engineering
Bronstein Visiting Affiliate Faculty
Bronstein Center for Healthy Aging and Wellness

Dr. Ryan Integlia is an Associate Professor of Engineering at USI whose academic interests include wearable devices, robotics, VR/AR, and applications of AI. Dr. Integlia received his PhD in Electrical and Computer Engineering from Rutgers, the State University of New Jersey, in 2011. Throughout his career, he has pursued many smart healthcare initiatives, particularly towards rehabilitation and wellness. Dr. Integlia has contributed to research areas such as wearable robotic systems, optical electronics, nanophotonics, social entrepreneurship, sustainability and public health, and potential applications related to the smart grid, transportation, or emergency medicine.