GRADUATE CERTIFICATE IN HUMAN SYSTEMS INTEGRATION

The Graduate Certificate in Human Systems Integration provides an interdisciplinary perspective designed to equip professionals and students with the essential skills and knowledge to seamlessly integrate human factors and technology within complex systems. This certificate program focuses on understanding the intricate relationships between people, technology, and the environment, ensuring that graduates possess the expertise to create efficient, user-friendly, and safe systems. Within this certificate, students have the option to select a more data-centric or AR/VR (augmented/virtual reality) focused set of courses. Graduates will be well-prepared to address the evolving challenges of our complex, technology-driven society, making them invaluable assets in the fields of systems engineering, design, and human-computer interaction.

Students interested in graduate work should refer to CSU's Graduate and Professional Bulletin (http://catalog.colostate.edu/general-catalog/graduate-bulletin/).

Learning Objectives

Students who successfully complete this certificate will be able to:

1. Evaluate human-system interactions for safety, efficiency, and usability.
2. Implement human factors concepts into design of new and existing systems.
3. Apply rigorous quantitative and qualitative methods for evaluating human-system performance.
4. Develop safety protocols and inclusive designs for complex systems.

Requirements
Effective Spring 2025

Additional coursework may be required due to prerequisites.

Code	Title	Credits
ENGR 535	Modeling Human Systems Behavior	3
SYSE 534	Human Systems Integration	3
Select two courses from the following:		6
ENGR 520	Intelligent Decision Support Systems	
SYSE 541	Engineering Data Design and Visualization	
SYSE 544	Systems-Based AR/VR Environmental Realism	
SYSE 545	Augmented/Virtual Reality Systems Development	
Program Total Credits:		**12**

*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.