

# HUMAN-CENTERED DESIGN AND DEVELOPMENT, B.S. (INFORMATION SCIENCES AND TECHNOLOGY)

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**Begin Campus:** Abington, Altoona, Berks, Beaver, Brandywine, DuBois, Erie, Fayette, Greater Allegheny, Harrisburg, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Shenango, Schuylkill, University Park, Wilkes-Barre, Scranton, York

**End Campus:** University Park

## Program Learning Objectives

- **Understanding Humans:** Understanding how humans' physical and cognitive capabilities inform interaction and experience design.
- **Understanding Context:** Understanding the context and technology requirements of users and other stakeholders, and articulating how design and evaluation concerns are affected by their context.
- **Modeling Human Activity:** Developing models of human activity with and without technology support.
- **Prototyping:** Envisioning, designing, and evaluating new technology prototypes using appropriate interaction modalities, styles and techniques.
- **Developing Production and Technologies:** Developing working, production technologies to address identified design opportunities.
- **Evaluating:** Applying and developing skills in a mix of qualitative and quantitative methods to collect and analyze formative and summative usability data.
- **Managing HCDD Projects:** Selecting, organizing and implementing design and development activities involving users and other stakeholders.
- **Communicating:** Communicating with colleagues, users, and other stakeholders about complex ideas describing actual and envisioned technology in use.
- **Enacting Ethics:** Understanding the importance of professional ethics and enacting these in human-centered design and development practice.