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

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.