INFORMATION SCIENCES AND TECHNOLOGY, B.S. (UNIVERSITY COLLEGE)

Begin Campus: Any Penn State Campus

End Campus: Beaver, Brandywine, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Wilkes-Barre, Scranton, York

Program Learning Objectives

Beaver and Greater Allegheny Campuses

- Understand and apply the interdisciplinary, theoretical knowledge of the information sciences.
- Understand, apply and adapt various problem solving strategies, using appropriate technology and methods.
- Communicate and work effectively (both individually and in teams)
- Understand professional responsibilities in terms of the ethical, legal, security and social aspects of any given problem and its solution.
- Commit to the continuous acquisition of relevant knowledge for professional development by self-teaching and/or on-going education and learning.

Brandywine, Hazleton, Lehigh Valley, Mont Alto, Schuylkill, Scranton, and York Campuses

- **Communication (Individual and Team):** Communicate and work effectively (both individually and in teams) with a range of perspectives and audiences through a variety of media
  - Participate effectively on teams in order to accomplish a common goal
  - Communicate effectively with a range of audiences, formally or informally, through writing and the spoken word
  - Seek out, analyze, and incorporate diverse ideas and broader perspectives represented in the diversity of people
  - Demonstrate respectful and inclusive choices in interacting with customers, peers, supervisors, and/or subordinates with a diversity of identity characteristics (e.g., age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identity, or veteran status)
- **Knowledge/Application:** Understand and apply the interdisciplinary, theoretical knowledge of the information sciences or security sciences
  - Define and explain the core concepts, principles, processes, and theories within the academic majors of IST and/or SRA
  - Apply the core concepts of the academic majors of IST and/or SRA to real-world problems
- **Lifelong Learning:** Commit to the continuous acquisition of relevant knowledge for professional development by self-teaching and/or on-going education and learning
  - Employ information-seeking strategies and self-directed learning in pursuit of current knowledge
  - Enroll and participate in professional development and tutoring opportunities
- **Problem-Solving:** Demonstrate, apply and adapt various problem solving strategies, using appropriate technology and methods

- Identify information problems and/or opportunities in terms of the human, informational and technology dimensions
- Analyze issues surrounding the problem and/or opportunity in terms of the human, informational, and technology dimensions; and determine the requirements appropriate to understanding the situation
- Design systems, architectures, processes, components, or programs to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world)
- Deploy up-to-date, relevant and appropriate techniques, methodologies, and/or tools necessary for understanding opportunities and constraints and/or the optimal design, implementation and continuance of an information based solution
- Evaluate the success of systems, architecture, processes, components, or programs intended to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world)
- **Professional Responsibilities:** Understand professional responsibilities in terms of the ethical, legal, security and social aspects of any given problem and its solution
  - Demonstrate an understanding of the cognitive, social, legal, ethical, diversity, and security perspectives surrounding a given problem
  - Assess the impact of information, computing and technology on individuals, groups, organizations, society, and the world for the purpose of making informed decisions from a sociological, governmental, legal, and/or security perspective.

New Kensington Campus

- **Knowledge/Application:** Understand and apply the interdisciplinary, theoretical knowledge of the information sciences.
- **Communication:** Communicate and work effectively (both individually and in teams) with a range of perspectives and audiences through a variety of media.

Wilkes-Barre Campus

- Apply the core concepts of the academic majors of IST to real-world problems.
- Identify information problems and/or opportunities in terms of the human, informational and technology dimensions.
- Analyze issues surrounding the problem and/or opportunity in terms of the human, informational, and technology dimensions; and determine the requirements appropriate to understanding the situation.
- Design systems, architectures, processes, components, or programs to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world).