

# INFORMATION SCIENCES AND TECHNOLOGY, B.S. (ABINGTON)

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**Begin Campus:** Any Penn State Campus

**End Campus:** Abington

## Program Learning Objectives

- **Analytical Skills:**
  - Demonstrate the ability to translate a problem definition into an algorithm process and apply it to a practical solution.
- **Coding and Database Skills:**
  - Demonstrate the ability to code the features(data types, data structures, flow control, GUI, methods, iteration, and threading, consume APIs and online services) with the following enterprise programming languages: JavaScript, Python, Java, and C#.
  - Demonstrate the ability to perform database connectivity, tables design, views, functions, triggers, and stored procedures, with the following Enterprise databases: Oracle, SQL Server, MySQL.
  - Demonstrate how to work with next generation databases like Mongodb.
- **Networking Skills:**
  - Demonstrate the ability to perform management and maintenance of servers, PC's, routers, switches, work with networking security tools, firewalls, anti-virus and intrusion detection systems.
  - Demonstrate knowledge of networking concepts: OSI model, networking topologies, and networking protocols.
- **Project Management Skills:**
  - Demonstrate the ability to perform full software/system lifecycle development, prepare and respond to request for quote documentation.
- **Technical Skills:**
  - Demonstrate the ability to work with operation systems (Windows Server, Linux and Mac OSX) and software applications (Integrated Development Environment, design tools like Visio, code control, project management, bug tracking and unit testing tools, and production builds).