Professional Technical Studies
PATHWAY: Programming & Software Engineering
CLUSTER: Information Technology

Analysis & Design
- Gathers data to identify customer requirements
- Develops software requirements specification
- Analyzes requirements/specifications using current approaches
- Defines scope of work for programming projects
- Demonstrates knowledge and skills of a software development team
- Understands elements and types of information processing
- Applies language-specific programming tools/techniques
- Demonstrates knowledge of software development methodology

Program Development
- Demonstrates comprehension of trade-offs involved in design choices
- Demonstrates knowledge of computing/networking hardware and software architecture
- Applies principles of effective information management, information organization, and information retrieval skills
- Demonstrates proficiency in developing applications using appropriate programming languages
- Demonstrates knowledge of program development methodology

Implementation & Support
- Resolves problems with integration
- Performs testing and validation
- Develops software testing audit trails
- Analyzes technical support needs
- Performs customer service
- Performs software maintenance activities