Aims and Objectives

**Aims:** Software Engineering program at Philadelphia University gives you the opportunity to:

- study a body of knowledge relating to Software Engineering, Software reengineering, and maintenance;
- understand the principles of large scale software systems, and the processes that are used to build them;
- have skills in the most widely used approach to software construction – object-orientation (OO), including OO requirement specifications, OO analysis, OO design, OO programming, OO testing and maintenance;
- use tools and techniques for producing application software solutions from informal and semi-formal problem specifications;
- acquire and develop many valuable skills such as the ability to use computer aided software engineering tools to analyze, evaluate, select and synthesise information sources for the purpose of developing a software system;
- develop an appreciation of the cost, quality, and management issues involved in software construction;
- develop an awareness of the role and responsibilities of the professional software engineer;
- acquire skills to think about problems and their solutions using appropriate methods of analysis and design;
- be able to design and communicate ideas about software system solutions at different levels of abstraction and have the opportunity to transfer such skills across a wide range of industrial and commercial domains;
- have an ability to work with other people in a team, communicating computing ideas effectively in speech and in writing;
- have a basis for going on to further study in software engineering, or for finding work in computing-related industries.
- be a graduate that can go on to employment in technical positions in software houses and with large-scale scientific and engineering users;
- be graduate that may seek to pursue research careers.