Software Engineering

The term "software engineering" was coined in 1968, during the NATO conference in Garmish. It was used in response to the problems associated with a software development that then still young IT sector was facing. Although more than 40 years have passed, the software development in many IT companies is still chaotic. Software is frequently delivered after the deadline, it costs much more than anticipated at the beginning, developers are often forced to work over-hours, and despite all these efforts, the software that is delivered does not meet customer needs and contains too many defects. The goal of Software Engineering as a discipline, is to deliver solutions that can be used to mitigate the problems associated with the software development by applying engineering methods to its development. Since 1998, Poznan University of Technology offers a M.Sc. program in Software Engineering. The curriculum aims at providing graduates with the necessary knowledge and skills to perform three important roles in IT projects:

Project Manager – project management methodologies, risk management, planning (size and effort estimation of software development);

Analyst – business process modeling, elicitation of functional and non-functional requirements for information systems, and preparation of acceptance tests;

Architect, senior developer – object-oriented design, software architectures, and software testing.

An important element of the curriculum is the Software Development Studio (SDS). This is a very practical form of studying. During the SDS course students are involved in projects delivering real software for real customers. Therefore, they have an opportunity to use different methods, standards, and tools for software development in practice. Each team is composed of four 4th-year students working towards Bachelor Degree and up to three students from the M.Sc. program in Software Engineering. Fourth-year students play the roles of designers and programmers, while the Software Engineering students are supposed to act as project managers / Scrum Masters, analysts, or architects. All the courses offered within the M.Sc. program in Software Engineering are in English.