



# Software Engineering

Field of study: Computing

## Course summary:

### Semester 1

- Data Mining and Analysis
- Project Management
- Software Development Studio 1
- Technologies of Software Development
- Database Systems Performance
- Foreign Language
- New Trends in Multimedia Technologies
- Basics of OHS (Occupational Health and Safety)

### Semester 2

- Software Architecture and Verification
- Software Development Studio 2
- Software Design and Modelling
- Pre-diploma Seminar
- Quality Management and Experimental Software Engineering
- Research Project
- Scientific & Technical Writing
- Elective Course 1 (Computer Science)

### Semester 3

- Diploma Seminar
- IT in Administration
- Elective Course 2 (Computer Science)
- Elective Course 3 (Social Sciences)
- Elective Course 4 (Humanities)
- Master Thesis

## Programme description

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 which 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 after hours, and despite all these efforts, the software that is delivered does not meet all 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. Programme 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, real-time systems, 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 two or three students from the M.Sc. Programme 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, analysts or architects.

The candidates should have Bachelor Degree in Computer Science, Computer Engineering, Informatics or related fields.



# Software Engineering

Field of study: Computing

<b>University</b>	Poznan University of Technology Poznan, POLAND
<b>Degree to be obtained</b>	Master of Science
<b>Programme website</b>	<a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>
<b>Contact</b>	International Relations Office Pl. M. Skłodowskiej-Curie 5 60-965 Poznan, Poland
<b>Phone</b>	+48 61 665 3544
<b>Fax</b>	+48 61 665 3956
<b>E-mail</b>	<a href="mailto:study@put.poznan.pl">study@put.poznan.pl</a>
<b>Language of instruction</b>	English
<b>ECTS points</b>	90
<b>Duration</b>	1.5 years (3 semesters)
<b>Programme begins</b>	end of February
<b>Programme ends</b>	end of June
<b>Deadline for application</b>	3 months before the course starts – end of November
<b>Education requirements</b>	English language – level B2 (Common European Framework), Bachelor of Science degree (or equivalent) in Computer Science, Computer Engineering, Informatics or related fields. Full list of the required documents is available at: <a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>
<b>Mode of instruction</b>	Lectures, classes, laboratory classes, projects, internships

