Name: **Software Technology and GUI Design**	*NEPTUN-code:* *NIXSG1EBNE*	*Number of periods/week:* full-time: 2 ea + 0 gy + 3 lab
Credit: 5 *Requirement:* exam	*Prerequisite:* *NIXWH1EBNE* Web programming and advanced development techniques	
Responsible: József TICK, Ph.D.	*Position:* associate professor, habil.	*Faculty and Institute name:* John von Neumann Faculty of Informatics Institute of Applied Informatics

Way of assessment:
- precondition of signature: to achieve min. 50% in the tests written during the semester   - written exam

Competences

Course descrition:
The lectures aim to present the paradigms of software engineering, methodology of software design and development, in particular to the modern methodologies based on object-oriented modelling.   The lectures' major subject areas are: trends and tendencies of software engineering, paradigms and methodologies of software development, notations of IT plans and documentations. The agile development models. The ways of software development, object-oriented analysis and design methods, modelling, model-driven software development, Unified Modelling Language, the UML models and their application in the development process, the UML-profiles, Model-driven Architecture (MDA), the use of design patterns, application-development with UML and RUP. Development of mainframe systems, cloud-based application development. Case studies, best-practice examples.   Under the current lab sessions students are introduced to the use of the acquired theoretical knowledge in practice. During the semester, students are required to solve a complex task in teamwork with CASE tool. During the execution of the task practice-oriented problem solving is on focus, students are training to reach a skill-level in development, teamwork and presentation of the development are highlighted. A central element of the elaborated and developed system is the planning and development of a modern graphical user interface of the system.

Literature
Ian Sommerville: Software Engineering, Panem Kft., 2007 (in Hungarian)   Ian Sommerville: Software Engineering, Pearson, 9 edition, 2010