<table>
<tr><td colspan="2">Name:
Advanced Software Engineering</td><td>NEPTUN-code:
NIXHS1EMNE</td><td>Number of periods/week:
full-time: 3 lec + 0 sem + 0 lab</td></tr>
<tr><td colspan="2">Credit: 3
Requirement: mid-term mark</td><td colspan="2">Prerequisite:
-</td></tr>
<tr><td>Responsible:
József TICK, Ph.D.</td><td>Position:
associate professor, habil.</td><td colspan="2">Faculty and Institute name:
John von Neumann Faculty of Informatics
Institute of Applied Informatics</td></tr>
<tr><td colspan="4">Way of assessment:
- two mid-term exams</td></tr>
<tr><td colspan="4">Competences</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="4">Course description:</td></tr>
<tr><td colspan="4">Formalism of the description of information technology- and software-systems, modeling, designing and developing complex information systems, desing, decomposition and integration strategies based on formal methods. Application of development tools based on information technology in the process of development. Model-based development methods of software systems, meta-model architectures, their practical application. Solutionof reverse and round-trip engineering, quality-based approach of software development, questions of quality, data security, secure code. Verification, validation and testing of software systems. Aspect-oriented software development. Process models of software development, effective application of agile approach (Scrum, Lean and Kanban).</td></tr>
<tr><td colspan="4">Literature</td></tr>
<tr><td colspan="4">Ian Sommerville –Software Engineering, 2nd edition, Panem Kiadó, Debrecen, 2007 (in Hungarian)
Ian Sommerville: SOFTWARE ENGINEERING, Addison-Wesley, 2011 (electronic notes)
Sándor Sike, László Varga: Software Technology and UML, 2nd edition, ELTE-Eötvös kiadó, Budapest, 2008 (in Hungarian)</td></tr>
</table>