

**Course title:** Numerical Analysis  
**Institute/Division:** F-3, Institute of Computer Science  
**Course code:** F3\_NA  
**Erasmus subject code:** Informatics, Computer Science  
**Number of contact hours:** 45 hours  
**Course duration:** 1 semester  
**ECTS credits:** 6  
**Course description:** Error analysis, order of convergence, solution to linear system of equations, Gauss method, Gauss-Jordan method, Banachiewicz-Cholesky method, inverse of the matrix, iterative methods, Interpolation, approximation, least squares method, numerical differentiation, numerical integration, Newton-Cotes formulas, Gauss integration, solution to nonlinear system of equations, eigenvalue problem.

**Literature:** D. Kincaid, W. Cheney: Numerical Analysis.  
**Course type:** Lectures and laboratories  
**Assessment method:** Attendance, evaluation of small projects, exam  
**Prerequisites:** programming languages, computer networks  
**Primary target group:** 2-rd year computer science students  
**Lecturer:** Agnieszka Jakóbk, PhD  
**Contact person:** Agnieszka Jakóbk, PhD, [agneskrok@gmail.com](mailto:agneskrok@gmail.com)  
**Deadline for application:** 15th of January