

COURSE TITLE:	NUMERICAL METHODS
Institute/Division:	Faculty of Electrical and Computer Engineering/E-11
Course code:	
Erasmus subject code:	11.3
Number of contact hours:	45
Course duration:	1 semester
ECTS credits:	6
Course description:	Working knowledge of numerical methods to solve problems in matrix calculus, interpolation, differential and some types of integral equation, integration of functions, and regression analysis for experimental data sets. Implementation of these numerical methods in the Matlab-Simulink software package. Computer simulation methods in engineering and physics -- including nonlinear systems and processes.
Course type:	Lectures (20), computer labs (20), project (5).
Literature:	W. H. Press, S. A. Teukolsky, Numerical Recipes. Cambridge Univ. Press 2007. K. Chen, P. Giblin, A. Irving, Mathematical Exploration with MATLAB, Cambridge Univ. Press 1999.

T. Pang, An Introduction to Computational Physics,
Cambridge Univ. Press 1997.

Assessment method: Project and laboratory exercises

Prerequisites: basic course of higher mathematics

Primary target group: undergraduated students

Contact persons:

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