UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2016/17/1
Course:	Advanced Algorithms in Process Engineering
Code:	VEMKFOV132F
Responsible department:	Department of Process Engineering
Department code:	MKFO
Responsible instructor:	Dr. Tamás Varga

Course objectives:

To teach the students to the details of advanced process engineering algorithms and their application.

Course content:

Typical problems in process engineering
First-principle models in industry – Case studies
Black-box models in process industry – case studies
Hybrid models - case studies in process monitoring
Optimization in the process industry – parametric optimization
Optimization in the process industry – scheduling
Practical issues in system identification
Soft Sensors and state estimation
Statistical process control
Time-series analysis

Requirements, evaluation and grading:

Grading is based on one written midterm examinations and one written final examination. The final mark is determined according to following table based on the weigthed average of the points obtained for the midterm and the final written examination (midterm 30%, final 30% and for the assignment 40%): % final mark above 80 excellent (5) 70-79.99 good (4) 60-69.99 medium (3) 50-59.99 pass (2) below 50 fail (1)

Required and recommended readings:

Art Collection Moodle e-learning system.