UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2012/13/1
Course:	Data Processing and Programming
Code:	VEMKFOB212A
Responsible department:	Department of Process Engineering
Department code:	MKFO
Responsible instructor:	dr. Tibor Chován

Course objectives:

Introduction to simple and complex data processing algorithms. Introduction of C++ programming language including its elements and structures and their application in implementing different algorithms.

Course content:

Introduction to programming: problem, algorithm, program. Fundamental data processing algorithms. Data structures. Operations on data structures. Sort algorithms. Search algorithms. Basics of C/C++ programming language. Simple data types. Operations on simple data. Basic I/O manipulations. Control structures. Complex data structures, type definition. Application of pointers. Functions. File operations. Object oriented programming. Individual programming assignments.

Requirements, evaluation and grading:

Grading is based on the results of 2 midterm exams and 2 programming assignments. Midterm exams consist of theoretical and practical parts. Theoretical parts (90 minutes) cover the algorithms and C++ language. Practical parts (90 minutes) involve solving particular programming problems in PC laboratory. The grade is determined with the weighting of results of the midterm exams and the reports. Repeated examination can be taken from the content of the two midterm exams in the examination period. The determination of the grade is the same as above.

Required and recommended readings:

Szlávi P., Zsakó L.: Módszeres programozás: Adatfeldolgozás B. W. Kernighan, D. M. Ritchie A C programozási nyelv Tóth Bertalan: Programozzunk C++ nyelven