



## COURSE DATASHEET

<b>Semester:</b>	2014/15/2
<b>Course:</b>	Computer Science for Engineers II.
<b>Code:</b>	VEMKFOB133S
<b>Responsible department:</b>	Department of Process Engineering
<b>Department code:</b>	MKFO
<b>Responsible instructor:</b>	Zsolt Ulbert

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### Course objectives:

The modern IT skills and their effective application have indispensable role in the engineering practice and research work. This course aims to provide practical skills for students in the field of database management and structured computer program development in C programming language. Finishing this course students significantly increase their level of competence in these fields. Solving algorithms and software development tasks contribute to develop student's problem solving and thinking skills. Students will gain their practical skills in using a database management system (LibreOffice Base) application and get to know the basics of the C programming language.

### Course content:

Practical topics:

Introduction to LibreOffice Base database management software: Creating data tables, relationships between tables, creating queries, using function in query, summarizing data with queries.

Introduction to C Programming Language: variable types, structured variable types (arrays and structures), pointer variables, relational operators, standard input and output functions (printf, scanf), loop control statements (for, while, do-while), conditional statements (if, if - else, if - else if, switch), function handles, file I/O.

### Requirements, evaluation and grading:

During the semester students must write two written final examinations on the topics of LibreOffice Base and C programming language skills, one examination during the semester and one at the end of it. The results of these examinations contribute to the final mark by weight of 24% and 36%. In addition to the final examinations, every week an 10-15 minute examination is written on the topics of the previous week's practical lesson. The aggregate result of these examinations contributes to the final mark by weight of 40%.

The final mark is determined according to following table based on the weighted average of the examinations (LibreOffice Base examination 24%, C programming language examination 36%, aggregate of weekly examinations 40%):



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### Requirements, evaluation and grading:

above 80 excellent (5)

70-79 good (4)

60-69 medium (3)

50-59 pass (2)

below 50 fail (1)

Replacement of written examination is not possible, in this case written examination contributes to the final mark by weight of 0%. The LibreOffice Base and C programming language written examinations can be improved one time in the first week of exam period.

Conditions for teacher's signature:

The absences from practical lessons will not exceed the 35% of total number of practical lessons and in the aggregate of weekly written examinations at least 50% result to be achieved.

### Required and recommended readings:

Base Handbook, <https://wiki.documentfoundation.org/Documentation/Publications>

Brian W. Kernighan, Dennis M. Ritchie, The C Programming Language, Prentice Hall; 2 edition (April 1, 1988); [http://www.iups.org/media/meeting\\_minutes/C.pdf](http://www.iups.org/media/meeting_minutes/C.pdf)