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| **Title and Code** of the subject: **Informatics, MTB7008A** | **ECTS Credit Points: 3** |
| **Type** of the subject: compulsory / optional **compulsory** | |
| **Ratio of theory and practice: .0./100 %** (credit%) | |
| **Type and number of classes per semester**: 0 hour(s) lecture and 28 hour(s) practice per **semester**  Number of teaching hours / week : 0+2 (lecture and practice) | |
| **Type of exam**: exam / practical course mark **practical course mark** | |
| **Subject in the curriculum:** semester 1 | |
| Preliminary requirements:- | |

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| **Summary of content - practice**: |
| Course objectives:  This course is designed to give students an overview of the advanced tools of Microsoft Office applications, focusing on the Microsoft Excel and Access. The course requires the students to use spreadsheet and database applications to produce advanced spreadsheet outputs. Students will be able to use functions such as those associated with logical, statistical, financial and mathematical operations; create charts and apply advanced chart formatting features; embed functions; create array formulas and enhance productivity by working with named cell ranges. Students will learn about how to use, e.g., investment value functions, asset depreciation functions or interest rate functions. Students will learn how to create tables, queries, reports and forms in database. The course is practical-based.  **Schedule:**   1. Writing functions in Excel 2. Writing, using analysing array functions 3. Nested functions in Excel 4. Statistical and financial functions in Excel 5. Diagrams and other objects in Excel 6. Practical exam - Excel 7. Introducing to databases 8. Creating tables in Access 9. Table connections, keys, index 10. Creating queries in Access 11. Creating special queries in Access 12. Creating forms in Access 13. Creating reports in Access 14. Practical exam in Access |
| **Literature, handbooks in English** |
| 1. Excel Financial Functions, Excel Functions & Formulas, http://www.excel-examples.com/microsoft-excel-financial-functions.htm 2. Summarize Spreadsheet Data, With Excel's Array Formulas, http://www.exceluser.com/explore/arrays1.htm 3. Access 2013 tutorials; http://www.gcflearnfree.org/access2013 |
| **Competencies gained** *(acc. to the Regulation on training and outcome requirements)* |
| 1. **Knowledge:**  * The student possesses the most basic information gathering, analysis, task, and problem solving methods.  1. **Skills:**  * The student makes simple professional reports, evaluations, presentations, and performs them clearly.  1. **Attitude:**  * The student is receptive to receiving new information, professional knowledge and methodologies.  1. **Autonomy and responsibility:**  * The student performs job assignments independently, prepares own professional reports, create small presentations independently. If needed, it will be required to work with a staff member or a manager. |

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| **Responsible lecturer: László Várallyai PhD** |
| **Other lecturer(s): No** |

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| **Terms of course completion:** |
| 1. Completing exercises 2. Completing practical tasks at home 3. Successful writing of practical exams |
| **Form of examination:** |
| The course ends in a mid-semester grade based on the practical exam results. The minimum requirement for both mid-term (Excel) and end-term (Access) practical exams is 50%. Based on the score of the practical exam separately, the grade for the practical exams is given according to the following table:  Grades:   * 0–59.9% – 1 (fail) * 60–69.9% – 2 (pass) * 70–79.9% – 3 (satisfactory) * 80-89.9% – 4 (good) * 90-100% – 5 (excellent) |
| **Requirement(s) to get signature:** |
| Participation in practice is compulsory. Students must attend the practice classes and may not miss more than three times during the semester. In case a student does so, the subject will not be signed and the student must repeat the course. Attendance at practice classes will be recorded by the practice leader. Being late is counted as an absence. In case of further absences, a medical certificate needs to be presented. Missed practices should be made up for at a later date, being discussed with the tutor. During the semester there are two tests, students have to sit for the tests. |

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| **Exam questions:** |
| There is only a practical exam, so there aren’t any theoretical questions.  The practical topics are:   1. Writing functions in Excel 2. Writing, using analysing array functions 3. Nested functions in Excel 4. Statistical and financial functions in Excel 5. Diagrams and other objects in Excel 6. Introducing to databases 7. Creating tables in Access 8. Table connections, keys, index 9. Creating queries in Access 10. Creating special queries in Access 11. Creating forms in Access 12. Creating reports in Access |