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| 1. Course title: Basics of Python | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): practice | | |
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| 4. Contact hours: 1+2 hoursper week | | 5. Number of credits (ECTS): 3 | | |
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| 6. Preliminary conditions (max. 3):   * Programming Methodology I. | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | |
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| 8. Limit for participants: 20 per study groups | | | | |
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| 10. Responsible teacher (faculty, institute and department):  András Bodor (Faculty of Science, Institute of Mathematics and Informatics, Department of Applied Mathematics) | | | | |
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| 11. Teacher(s) and percentage: | | András BODOR | | 100 % |
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| 12. Language:English | | | | |
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| 13. Course objectives and/or learning outcomes:  Objectives: A tárgy célja a Python programozási nyelv megismerése és magabiztos használatának elsajátítása az általános programozási feladatok vonatkozásában.  The lecture intends to introduce students to the Python programming language.  Learning outcomes: Students completing the course will have an overview of the Python programming language.. They will be *able* to solve programming problems and to use third party Python programming libraries. | | | | |
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| 14. Course outline   1. Short history of Python, installation, program invocation, introduction of the read-evaluate-print loop. 2. Control flow statements, function definitions, different kinds of function parameters. 3. The most important data structures and built-in functions. 4. Modules, interaction with the OS, file handling. 5. Erros and exeptions. Object oriented Python I. 6. Object oriented Python II. Standard methods. 7. Test. 8. Iterators and coroutines 9. Object oriented Python III. Inheritance. 10. Overview of the standard library I. 11. Overview of the standard library II. 12. Studying a complex problem selected with the student. 13. Test. | | | | |
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| 15. Mid-semester works | | | | |
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| 16. Course requirements and grading  Grades are determined upon four homeworks and two tests. | | | | |
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| 17. List of readings   1. The Python Tutorial : <https://docs.python.org/3/tutorial> | | | | |
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| 18. Recommended texts, further readings   1. Zed A. Shaw: Learn Python the Hard Way, Addison-Wesley Professional 2013 ISBN-13 978-0-321-88491-6; https://learnpythonthehardway.org/book | | | | |
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| **Date** | 13 April, 2017 | **Prepared by** |  | |
| András Bodor  responsible teacher | |
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| **Endorsed by** | | |  | |
| Dr. Mátyás Koniorczyk program supervisor | |