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| 1. Course title: PHP Programming | | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): seminar | | | |
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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): Methodology of programming I. | | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | | |
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| 8. Limit for participants: 20 | | | | | |
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| 10. Responsible teacher (faculty, institute and department):  Viktor Rébay (Faculty of Science, Institute of Mathematics and Informatics, Department of Informatics) | | | | | |
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| 11. Teacher(s) and percentage: | | Viktor RÉBAY | | 100% | |
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| 12. Language:English | | | | | |
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| 13. Course objectives and/or learning outcomes:  The seminar intends to extend students’ knowledge on using PHP frameworks in modern web development. It aims to demonstrate the basic philosophy and operation of some popular frameworks. Students completing the course will have knowledge on the structure and operation of web frameworks. With the acquired knowledge and experiences, students will be able to explore, learn and use other similar frameworks without further help. | | | | | |
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| 14. Course outline   1. Web application frameworks, and when to use them. Rapid glance over open source web PHP frameworks. Comparison of the most popular PHP frameworks. Symfony and CakePHP. Design patterns in web frameworks, MVC versus MVP. 2. Installing and configuring Symfony and CakePHP frameworks. Reviewing, installing, and configuring required tools and services (Webserver, database server, version control). Creating “Hello World” with Symphony and CakePHP. 3. Working with databases. Object-relational mapping and Open Database Connectivity. Connecting to database servers. 4. Building the first MVC based web application using Symfony and CakePHP frameworks. 5. Creating and customizing forms. Validating forms. Using plug-ins and widgets. Protecting forms with captcha. Various implementations of captcha, developing individual solutions. 6. Creating mailing applications. Sending simple and HTML e-mails. Handling different types of recipients. Adding attachments. Using local and remote SMTP servers, secure connections. 7. Full text searching and indexing. Processing search queries, displaying search results. Setting up custom Google searches. 8. Security issues. Typical attacks against websites (e.g. XSS and SQL injection). General and framework specific methods against typical attacks. 9. Using template engines within web frameworks. Reviewing and using some popular templates (e.g. Smarty). 10. Using AJAX services, like autocomplete, dynamic popup windows, user chat. 11. Internationalization using Symfony and CakePHP. Using different number, currency, date, and time formats, based on localization. 12. User management with Symfony and CakePHP. Defining and managing user groups and permissions. Using external authentication services, identifying users using LDAP. 13. Testing web applications. Defining test cases, using different categories of test in practice. Identifying and fixing bugs. | | | | | |
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| 15. Mid-semester works  Each student develops a website for a real or fictive company, using the tools and techniques learned in the semester. The evaluation is based on the content, design, creativity, functionality, implementation (source code, compliance with web standards), and also depends on the individual presentation of the work. | | | | | |
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| 16. Course requirements and grading  The final grade is based on the individual mid-semester assignment and the result of the final examination. | | | | | |
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| 17. List of readings   1. Bartosz Porebski, Karol Przystalski, Leszek Nowak: Building PHP Applications with Symfony, CakePHP, and Zend Framework. Wrox, 2011. ISBN: 9780470887349 | | | | | |
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| 18. Recommended texts, further readings | | | | | |
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| **Date** | 10 May, 2017 | **Prepared by** |  | | |
| Viktor RÉBAY  responsible teacher | | |
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| **Endorsed by** | | |  | | |
| program supervisor | | |