



RTU Course "Advanced Software Technologies (scientific seminar)"

12308 Programmatūras inženierijas katedra

General data

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| Code | DIP409 |
| Course title | Advanced Software Technologies (scientific seminar) |
| Course status in the programme | Compulsory/Courses of Limited Choice |
| Course level | Post-graduate Studies |
| Course type | Academic |
| Field of study | Computer Science |
| Responsible instructor | Zaiceva Larisa |
| Volume of the course: parts and credits points | 1 part, 2.0 Credit Points, 3.0 ECTS credits |
| Language of instruction | LV, RU |
| Possibility of distance learning | Not planned |
| Abstract | Review of modern software techniques and technologies. Review of scientific problems in the field of software technologies. Participation in scientific seminar organized by the Institute of Applied Computer Systems and RTU international conference, as well as discussion about reports presented during these meetings. |
| Goals and objectives of the course in terms of competences and skills | The aim of the study course is to provide students an opportunity to participate in a research work by analyzing and comparing different software technologies, as well as to state and present results of his/her Master Thesis sequentially and ground his/her arguments on facts. |
| Structure and tasks of independent studies | Student should write a report on selected topics and scientific paper on the topic of his/her Master Thesis. |
| Recommended literature | 1. Wiehler G. Mobility, Security and Web Services. Technologies and service-oriented Architectures for a new Era of IT Solutions. – GmbH : Publicis Corporate Publishing, Erlangen, 2004. – 219 p. 2. Abrahamsson P., Salo O., Rolkainen J., Warsta J. Agile Software Development methods. review and analysis. - VTT Publications 478, 2002. - 107 p. 3. Дунаев С.Б. Технологии Интернет-программирования. – СПб.: БХВ-Петербург, 2001. – 480 с. 4. Conference proceedings. |
| Course prerequisites | According to the 1st study year of Master programme |

Course outline

| Theme | Hours |
|--|-------|
| Review of scientific issues in field of software technologies. International associations, conferences and publications. | 4 |
| Research presentations by teachers and Doctoral students of the Chair of Software Engineering and discussion of reports. | 6 |
| Review of modern software technologies and their comparison. | 8 |
| Participation in scientific seminar of the Institute of Applied Computer Systems (ACS) and RTU International conference. | 6 |
| Discussion about reports presented in RTU International conference and scientific seminar of the Institute of ACS. | 4 |
| Progress tendencies of software technologies and discussion about them. | 2 |
| Presentation and discussion of student's Master Thesis. | 2 |

Learning outcomes and assessment

| Learning outcomes | Assessment methods |
|---|--|
| Is able to analyze software technologies by detecting their advantages and disadvantages, as well as tasks that can be solved using these technologies. | Positive assessment of prepared and presented report on selected topics. |
| Is able to compare different software technologies and to ground his/her decisions about selection of software technology for solving particular task. | Positive assessment of prepared and presented part of the Master Thesis that is connected with selection of software technology. |
| Is able to present, argumentatively explain and discuss his/her work aspects. | Positive assessment of scientific paper on topics of the Master Thesis. |

Study subject structure

| Part | CP | ECTS | Hours per Week | | | Tests | | |
|------|-----|------|----------------|-----------|------|-------|------|------|
| | | | Lectures | Practical | Lab. | Test | Exam | Work |
| 1. | 2.0 | 3.0 | 0.0 | 2.0 | 0.0 | * | | |