## **Course title: Web Technologies**

Course code: 64044 ECTS credits: 6

Requirements: None

## **Basic information**

Level of studies: Master applied studies

Year of study: 1

Trimester: 1

Goal: Training students to create dynamic web sites using CMS, as well as writing stand-alone code for the modification of existing functionalities or the creation of new ones.

Outcome: Students should be able to show detailed understanding of basic theoretical and practical knowledge of CMS implementation aimed at creating web sites.

## Contents of the course

Theoretical instruction

- 1. CMS concept
- 2. Installing and running Drupal CMS
- 3. CMS architecture
- 4. Code organization
- 5. Working with databases and data objects
- 6. CMS core design
- 7. User management
- 8. Page management
- 9. Working with sessions and users
- 10. Access control
- 11. Menus
- 12. Working with multilanguage sites
- 13. Creating and implementing templates
- 14. Concept and usage of plugins
- 15. Advanced usage of forms using plugins
- 16. Image galleries
- 17. Working with panels
- 18. Working with services

19. Application security 20. Creation and usage of modules Practical instruction (Problem solving sessions/Lab work/Practical training) 1. CMS architecture 2. Code organization 3. Database interaction 4. User administration section 5. Sessions and security 6. Caching 7. Access control 8. Expanding system functions 9. Navigation 10. Localization 11. Data exchange via AJAX 12. Classes for content presentation 13. Creating template data for content display 14. Data input control 15. Web services and CMS **Textbooks and References** 1. K. Verens, CMS Design Using PHP and jQuery, PUCKT Publishing, 2010. 2. M. Brampton, PHP 5 CMS Framework Development, PUCKT Publishing, 2010. 3. S. Goldstein, CMS Made Simple Development Cookbook, PUCKT Publishing, 2011. 4. Todd Tomlinson, John VanDyk, Pro Drupal 7 Development, Apress, 2010. Number of active classes (weekly) Lectures: 4 Practical classes: 2 Other types of classes: 0 **Grading (maximum number of points: 100) Pre-exam obligations: Points** Activities during lectures: 0 Activities on practical exercises: 20 Seminary work: 50 Colloquium:

Final exam: Points
Written exam: 30
Oral exam: 0
Lecturer
Nenad Kojić, PhD
Associate
Marko Spasojević, Milena Vesić