### Course title: Web Programming PHP 2

Course code: 64041

ECTS credits: 8

Requirements: None

#### **Basic information**

Level of studies: Undergraduate applied studies

Year of study: 3

Trimester: 7

Goal: Enabling students to integrate acquired knowledge in object-oriented programming and web programming aimed at creating modern sites using development environments.

Outcome: Students should be able to create a website in one of the development environments, to implement existing classes and libraries, as well as to modify and create them independently.

### Contents of the course

Theoretical instruction

- 1. Reasons for object PHP, Working with classes and objects
- 2. Automatic class loading, Use of magic methods
- 3. Class design, Creating classes, Controlling access to properties and methods, Using PHP filters to validate data
  - 4. Creating and using validation classes
  - 5. Database classes, Navigation classes, Image classes
  - 6. Error and exception handling
- 7. Basics of MVC architecture, Method of approach to code realization, Work with development environment
  - 8. Controllers, Models, Views, Helpers
- 9. Working with databases, Data management, Integration of JavaScript, jQuery and AJAX
  - 10. Application security

Practical instruction (Problem solving sessions/Lab work/Practical training)

- 1. Example of MVC architecture
- 2. Creating controller classes
- 3. POST and GET data transfer
- 4. Realization of model classes, Realization of presentation level

- 5. Data validation, Content localization
- 6. Creating classes to expand the framework
- 7. Helper methods
- 8. Making custom helpers
- 9. File manipulation, Protection of data
- 10. Interaction of JavaScript, ¡Query and AJAX with the environment

### **Textbooks and References**

- 1. Matt Stauffer, Laravel Radni okvir za izradu modernih PHP aplikacija, Kompjuter biblioteka Kompjuter biblioteka, 2019.
  - 2. S. Holcner, PHP 5, Kompjuter biblioteka, 2006.
  - 3. M. Zandstra, PHP Objects, Patterns and Practice, Apress, 2010.
  - 4. A. Griffiths, Codelgniter 1.7 Professional Development, PUCKT Publishing, 2010.
  - 5. T. Myer, Professional Codelgniter, Wrox, 2008.

# Number of active classes (weekly)

Lectures: 4

Practical classes: 3

Other types of classes: 1

## **Grading (maximum number of points: 100)**

# **Pre-exam obligations: Points**

Activities during lectures:

Activities on practical exercises: 20

Seminary work:

Colloquium: 30

### **Final exam: Points**

Written exam: 50

Oral exam:

#### Lecturer

Nenad Kojić, PhD

### Associate

Luka Lukić