

**Course title: Doctoral Thesis-production and defense**

**Teacher(s): Mentor**

**Course status: compulsory**

**Number of ECTS credits: 30**

**Condition: Defined by the acts of law and bylaws**

**Course objectives**

The main objective of the course is the production (writing) and defense of the final paper (doctoral thesis) on the specified topic.

One of the objectives is also an application of fundamental, theoretical and methodological, scientific and professional as well as the professional and applicative knowledge, methods and the innovative information presented in the relevant scientific and expertise literature when students of doctoral studies start resolving concrete problems.

Objectives also include:

Writing of the doctoral thesis;

Public oral presentation in the corresponding field with proper knowledge and systematic understanding;

The ability of independent and argumentative presentation of the methodology applied and the results of the original scientific research with the necessary degree of academic integrity, with clear, concise and argumentative answers on the question posted by the commission for the doctoral thesis defense.

**Learning outcomes**

**The student of doctoral studies is expected to have the following proven abilities to:**

apply the corresponding methodologies and transfer innovative knowledge in the field of the dissertation topic, independently present the applied methodology and the results of their original scientific research to the members of scientific public with the corresponding degree of academic integrity,

independently use relevant literature applying scientific methodology,

use systematic analyses and reach relevant conclusions in order to present the results of their research on the specified topic of the doctoral thesis, to enlarge on their significance and contribution to further scientific research in the corresponding field,

provide original scientific and research results which broaden the boundaries of the existing knowledge in the scientific field of the thesis,

answer clearly, concisely and argumentatively on the questions posted by the members of the commission for the doctoral thesis defense.

Public verification of knowledge and systematic understanding of the doctoral thesis subject.

**Course subject**

***Theoretical classes***

Theoretical foundations represent the necessary condition for successful development, writing and defense of the doctoral thesis.

***Practical classes***

The contents of the doctoral thesis is original and it is in accordance with the subject and purpose of the paper. A student has conducted literature review, analysed the subject of the thesis in order to find the appropriate solutions to the task and undertaken thesis development.

***Writing doctoral thesis***

The mentor and the candidate mutually design the framework of the doctoral thesis and the candidate accepts and applies it in their thesis.

The doctoral thesis is developed (and documented) within the framework of the approved topic which contains the defined aims, tasks, hypotheses that have been previously defined by the Commission for the assessment of the competence of the theme, the candidate and the mentor (the thesis proposal verified by the University of Kragujevac as a proposal of the Scholarly Board of the Faculty of Technical Sciences).

Positive review of the doctoral thesis theme enables a candidate to start the description of the results obtained by preparing the doctoral thesis.

In the process of preparing the thesis, a candidate consults a mentor about the additional instructions, contemporary literature and further directions with the aim of creating a quality doctoral thesis.

Depending on the topic and the requirements of the thesis a candidate does projects, surveys, research, statistical calculations, creates (software) applications whose results are further incorporated into the dissertation.

The student of doctoral studies uses relevant literature proposed and analysed together with a mentor.

The candidate can consult other subject specialist teachers concerning the topic of the thesis.

The candidate is obliged to pass all the exams that were defined by the study program before they submit the thesis.

### ***The defense of the doctoral thesis***

Public presentation of the doctoral thesis is organized according to the Rulebook on doctoral studies and admission to the Phd degree on the Faculty of Technical Sciences in Čačak.

After a process of documentation has been finished, the candidate (according to the abovementioned Rulebook) in collaboration with the mentor submits the suitable number of dissertation samples. The Scholarly Board of the Faculty of Technical Sciences decides upon the Commission for the evaluation and defense of the doctoral thesis which consists of at least three members.

The Commission delivers the report (positively reviewed) to the Scholarly Board of the Faculty of Technical Sciences for the purpose of evaluation. The report is further reviewed and submitted to the University of Kragujevac to be accepted. Thus, positively reviewed and accepted report on the evaluation of the doctoral thesis is brought back to the Faculty of Technical sciences and the Commission, together with the Dean and the candidate, sets the date for the oral presentation of the doctoral thesis.

The oral defense of the thesis comprises a brief overview of the thesis, the presentation of the results and scientific contribution of the dissertation. The candidate further answers the questions posted by the members of the Commission. The defense has finished when all the members of the Commission have asked their questions and the candidate provides suitable answers.

After the Commission has finished the defense report, it informs the candidate on the result of the defense. The defense report is further submitted to the administration of the Faculty of Technical Sciences and the University.

A positively reviewed report provides the promotion of the doctoral studies candidate, when all the candidates who have been admitted to the degree of the doctors of sciences on the University of Kragujevac.

### **Recommended literature**

- 1 <eng>Dunleavy, P.: Authoring a PhD Thesis: How to Plan, Draft, Write and Finish a Doctoral Dissertation 2003rd Edition, Palgrave.Study.Guides, ISBN-13: 978-1403911919</eng> DD IZRADA I ODBRANA
2. <eng>Roberts, C., Hyatt, L.: The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation, 3rd Edition, Corwin, 2019, ISBN-13: 978-1506373317</eng> DD IZRADA I ODBRANA

Number of active teaching classes: 0

Theoretical classes: 0

Practical classes – OTHER : 20

### **Teaching methods**

Public oral presentation, multimedia methods in presenting the independent and original results of the scientific research on the specified topic of the doctoral thesis.

### **Evaluation (maximal number of points 100)**

Preparation of the doctoral thesis -50

Defense of the doctoral thesis - 50.