

## Theoretical and Experimental Physics

at Faculty of Physics, 12 Studentski trg, Belgrade, http://147.91.68.190/Engleski/index Eng.html

#### ECTS: 60/ LANGUAGE OF INSTRUCTION: SERBIAN/ DEGREE: MASTER

## Study program content

The purpose of the studies is that students improve their education choosing one of the special topics of modern physics, and also to introduce students in the research work and prepare them for doctoral studies.

Through individual work with mentors in the research study work, students obtain the necessary initial practical skills (problem definition, literature search) to develop and present a master work of the selected problems of modern physics. This gives them an idea of the selected scientific area, and their abilities and preferences for the chosen topic, so they will be able to decide on the continuation of PhD studies and the selection of the specific scientific area. Students educated on this program received the necessary skills for their knowledge improvement in the country or abroad.

## Study program goals

The study program goal is to give students the high quality and modern knowledge according to international standards. Equally important is that students take the first step in research, develop their creativity, specific skills and educational abilities, as well as basic knowledge about the organization of research and teamwork.

Graduate students of this profile will significantly contribute to the development of physics and other sciences and technologies in Serbia. Therefore it will be a contribution to the development of entire society and to the growing involvement of Serbian science in international scientific and technological projects.

## Study program outcomes

After completion of this degree program students are trained for both individual and team research. They gain experience in dealing with contemporary theoretical and experimental techniques. They are able to present the results of their work to colleagues both orally and in the form of paper. Special attention is paid to the

development of communication skills and presentation of scientific results in English. The students expand their knowledge of certain specific scientific fields and therefore are able to solve scientific and technical problems by using theoretical, experimental and numerical methods. They are able to use their knowledge in other sciences, especially in interdisciplinary sciences.

## **Admission requirements**

Requirement for this degree program is previously completed studies of the total volume of at least 240 ECTS in natural or technical sciences. Admission committee may require passing special exams to lead the student on the required

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# **Applied and Computer Physics**

at Faculty of Physics, 12 Studentski trg, Belgrade, http://147.91.68.190/Engleski/index Eng.html

#### ECTS: 60/ LANGUAGE OF INSTRUCTION: SERBIAN/ DEGREE: MASTER

## Study program content

The study program has a load of 60 ECTS credits and consists of election courses (25 ECTS), study research (15 ECTS credits) and thesis (20 ECTS credits). A student chooses the course he didn't pass at the undergraduate level.

Through individual work with the supervisor a student is learning to be independent in his research. The methods of teaching are lectures, laboratory exercises, theoretical exercises and seminars.

Through laboratory exercises a student has some independence in using modern equipment and appliances. Faculty of Physics offers the students the most modern instruments for training.

Classes are held in small groups of students and the individual (mentor) work. Working methods are adapted to the number of students (consultations, seminars, etc.).

#### Study program goals

The primary goal of the studies is to develop professionals with a high level of fundamental and applied knowledge in various fields of physics, applied and computer physics, with the master degree recognized by all European institutions. These studies also develop professionals that will be able to find suitable employment or to pursue doctoral studies in physics or related disciplines.

#### Study program outcomes

After completion of this degree program students will be trained to perform all phases of research within the scientific and technological projects. They will gain experience in working with modern instruments used in research laboratories. Students will be able to independently apply complex chemical protocols and will be familiar with using computers in all phases of research. They will be able to present the results of their work at scientific meetings. After

completion of this degree program students will expand their knowledge in various fields of applied and computer physics and they will develop skills for solving technological and scientific problems by using various physical and computational methods. They will be able to work independently in physical laboratories of different application profiles and purposes (research and development, quality control, standardization, process monitoring, etc.). They will acquire their knowledge and skills needed to solve complex measurement, technological and experimental tasks in industry and energy and in research laboratories. Students will be able to work within a team, research a problem, present it to the master work, and to orally defend their work.

## **Admission requirements**

Requirement for this degree program is previously completed studies of the total volume of at least 240 ECTS in natural or technical sciences. Admission committee may require passing special exams to lead the student on the required level.

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## Meteorology

at Faculty of Physics, 12 Studentski trg, Belgrade, http://147.91.68.190/Engleski/index\_Eng.html

### ECTS: 60/ LANGUAGE OF INSTRUCTION: SERBIAN/ DEGREE: MASTER

## Study program content

The purpose of the study of meteorology is passing additional knowledge to the students as defined in the objectives of this program. Meteorology is a profession that has been getting on the importance in recent years all over the world, more and more so because of the global warming of the atmosphere and climate change. This study program is entirely monitoring this world trends. Meteorological courses are well designed and incorporate the latest knowledge necessary for this science.

## Study program goals

The study program goal is to train students to think creatively, to monitor relevant scientific literature and the Internet, to understand and solve complex meteorological problems, to apply and present the results. The purpose of this study program is to enable experts to work in the research institutions. Also, the purpose of this study program is to provide students with skills that are necessary in continuing doing scientific research through doctoral studies.

## Study program outcomes

After completion of this degree program students have the advanced knowledge in meteo-

rology which will enable them to do the scientific research. They are trained for analytical and creative thinking and to monitor the literature and newspapers in the area, which is necessary for participating in scientific research through doctoral studies. Special attention is given to the autonomy of their work, their presentation and IT skills. The courses on this program are based on the modern meteorology with new technologies, so that the program prepares students for technological applications and work on technology transfer.

#### Admission requirements

Requirement for this degree program is previously completed studies of the total volume of at least 240 ECTS in natural or technical sciences. Admission committee may require passing special exams to lead the student on the required level.

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