



UNIVERSITY OF SARAJEVO – FACULTY OF SCIENCE
SUBJECT DESCRIPTION

Form SP2

Page 1 of 3

| | | | |
|--|---|---|------------------------|
| Subject code: TG 402-1 | Subject name: INTRODUCTION TO SCIENTIFIC RESEARCH | | |
| Ciklus: I | Year: IV | Semester: VIII | ECTS credits: 5 |
| Status: mandatory | | Contact hours: 125 <i>Lectures: 30</i> <i>Exercises:30</i> | |
| Assigned professors and assistants: | | | |
| Prerequisites: | / | | |
| Subject objectives: | <i>Training students to independently interpret the specifics of methodology in geography, standard and special research methods. Teaching students to independently define the goals, tasks and subject of the research project, the structure and phases of the development of the scientific research and independently prepare scientific research.</i> | | |
| Teaching units: | <ol style="list-style-type: none"> 1.Science and scientific research (definition, object and types) 2.Methodology area and function, relation between methodology and theory 3.Basic research methods and method features 4.Identification and determination of research problem 5.Selection and application of research methods in the system of geographical sciences 6.Collecting scientific materials 7.Methods and research methodology of geographical space. Selection of scientific methods in problem solving 8.First test 9.Methods of analysis and sythesis, experiment, statistical method, classification and remote sensing methods in research of geospace 10.Methods of assessment and evaluation of the geographical and natural environment 11.Processing and analysis of scientific data 12.Articles categorization 13.Hypotheses, objectives, tasks and scientific debate 14.Scientific elaboration of a specified geographical area 15.Practical work on the processing and analysis of data | | |
| Learning outcomes: | Knowledge: <i>The student will be able to explain the division of science, single out the types of scientific research, explain characteristics of methods and types of research methods, the student will know how to explain the function of methodology and</i> | | |



| | <p><i>the relationship between methodology and scientific theory, the specifics of methodology in geography and the student will know how to determine scientific problem and set up a hypothesis.</i></p> <p>Skills: <i>The student will be able to explain apply and analyze standard and special research methods, independently define the goals, tasks and subject of the research project and how to independently determine how to write a report on the finished research.</i></p> <p>Competencies: <i>Student will be able to independently interpret the structure and phases of scientific research, independently prepare scientific research project, create and present (in written and verbal form) scientific content.</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---------------------|-------------------|---------------------|----|----------------------|----------|---|----------------------|---------|---|-----------------|---------|---|--|--|--|-------------------------|---------|---|-----------------------|---------|---|--|--|------|-----------------------------|--|
| <p>Teaching methods:</p> | <p><i>Lectures are theoretical and practical based on the analysis of research methods used in geography and the analysis of categories of scientific papers and the content of scientific work.</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Knowledge testing methods with grading structure ¹:</p> | <p>Knowledge assessment - criteria: <i>Lecture and exercise attendance: maximum 10 - minimum 6 points</i> <i>Activity in class: maximum 10 - minimum 5 points</i> <i>Test: maximum 40 - minimum 22 points</i> <i>Final exam: maximum 40 - minimum 22 points</i></p> <p><i>Total 100 points, passing requirement: 55 points minimum.</i></p> <p>Assessment:</p> <table border="1"> <thead> <tr> <th><i>Grade</i></th> <th><i>ECTS grade</i></th> <th><i>Points scale</i></th> </tr> </thead> <tbody> <tr> <td>10</td> <td><i>(A) excellent</i></td> <td>95 – 100</td> </tr> <tr> <td>9</td> <td><i>(B) very good</i></td> <td>85 – 94</td> </tr> <tr> <td>8</td> <td><i>(C) good</i></td> <td>75 - 84</td> </tr> <tr> <td>7</td> <td></td> <td></td> </tr> <tr> <td></td> <td><i>(D) satisfactory</i></td> <td>66 – 74</td> </tr> <tr> <td>6</td> <td><i>(E) sufficient</i></td> <td>55 – 64</td> </tr> <tr> <td>5</td> <td></td> <td></td> </tr> <tr> <td>< 55</td> <td><i>(F, FX) insufficient</i></td> <td></td> </tr> </tbody> </table> | <i>Grade</i> | <i>ECTS grade</i> | <i>Points scale</i> | 10 | <i>(A) excellent</i> | 95 – 100 | 9 | <i>(B) very good</i> | 85 – 94 | 8 | <i>(C) good</i> | 75 - 84 | 7 | | | | <i>(D) satisfactory</i> | 66 – 74 | 6 | <i>(E) sufficient</i> | 55 – 64 | 5 | | | < 55 | <i>(F, FX) insufficient</i> | |
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¹ The structure of points and point criteria for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught in accordance with Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton



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Form SP2

Page 3 of 3

Literature²:

MANDATORY:

Vrišer, I. (1997): Metodologija ekonomske geografije, Filozofska fakulteta Univerza v Ljubljani, Odelek za geografijo, Ljubljana.

Đurđev, S. B. (2000): Metodologija naučnog rada, Univerzitet u Novom Sadu, Novi Sad.

Filipović, M. (2004): Uvod u metodologiju naučnog rada, Svjetlost, Sarajevo.

Spahić, M. (1999): Osnove geoekologije (geografske osnove životne sredine), Tuzla

RECOMMENDED:

Zelenika, R. (1998): Metodologija i tehnologija izrade znanstvenog i stručnog djela, Rijeka.

Šamić, M. (1990): Kako nastaje naučno djelo, Sarajevo

² The Senate of the higher education institution as an institution or the council of the organizational unit of the higher education institution as a public institution determines mandatory and recommended textbooks and manuals, as well as other recommended literature on the basis of which exams are prepared by a special decision which must be published on its website before the beginning of the academic year in accordance with Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton