(Table 5.2) Course unit description

Study program: ECOLOGY

Type and level of studies: Master academy study – II level of studies

Course unit: Behavioural Ecology

Teacher in charge: Snežana B. Pešić, Ph.D.

Language of instruction: English

ECTS: 6

Prerequisites: /

Semester: Summer semester

Course unit objective: Understanding of evolutionary development of behavior, i.e. natural selection and

Learning outcomes of Course unit: Experts who are capable of reasoning and making conclusions about synergy of ecology and evolution.

Course unit contents

Theoretical classes: Natural selection, ecology and behavior. Correlations of species' differences and differences in their ecology. How animals economize energy and achieve their goals. Learning in the community. Predators versus prey, or, Racing in defense and armaments. Competing for resources (housing, partner, food) in the environment and protective strategy of the same. Living in a group. Sexual selection, sperm competition and sexual conflict. Parental care and allied conflicts. Mating systems (with and without male parental care). The distribution of resources between the sexes. Social behavior - from altruism to spite. Cooperation and choice of social environment. Altruism and conflicts within the group of social insects. Communication and signals. Summary of the evolution and development of behavior.

Practical classes: Collective debate and discussion on these issues, initiated by defended essays.

Homework: Students of his choice, each individually, throughout the semester are following the behavior of selected animal and keeping a journal, which must be shown on the final exam.

Literature

- Davies N.B., Krebs J.R., West S.A. (2012): An introduction to behavioural ecology. Fourth edition. Wiley-Blackwell.
- Danchin É., Giraldeau L-A., Cézilly F. (2008): Behavioural ecology. Oxford University Press.
- Pešić S. (2011): Osnovi ekologije. Prirodno-matematički fakultet, Kragujevac. Various other printed and electronic sources.

| Number of activ | Other classes | | | |
|-----------------|---------------|---------------------------------|-------------------|--|
| Lectures: | Practice: | Other forms of classes: | Independent work: | |
| | | Mentoring (consultative) system | | |

Teaching methods: Problem-oriented teaching (lessons, using power-point presentations, documentary films and dialogues); group and individual work.

| Examination | methods | maximum | 100 points) |
|-------------|---------|---------|-------------|
| | | | |

| Exam prerequisites | No. of points: | Final exam | No. of points: |
|------------------------------------|----------------|---------------------|----------------|
| Student's activity during lectures | | oral examination | 20 |
| practical examination | 20 | written examination | 30 |
| Seminars | 20 | | |
| Homework | 10 | | |

Grading system

| No. of points | Description | | | | |
|---------------|--|--|--|--|--|
| 91 - 100 | Excellent | | | | |
| 81 - 90 | Exceptionally good | | | | |
| 71 - 80 | Very good | | | | |
| 61 - 70 | Good | | | | |
| 51 - 60 | Passing | | | | |
| < 50 | Failing | | | | |
| | 91 - 100 81 - 90 71 - 80 61 - 70 51 - 60 | | | | |