

MORPHOLOGY AND SYSTEMATICS OF THE INVERTEBRATE ANIMALS

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| 1 | Course Title: | MORPHOLOGY AND SYSTEMATICS OF THE INVERTEBRATE ANIMALS |
| 2 | Course Code: | BYL2007 |
| 3 | Type of Course: | Compulsory |
| 4 | Level of Course: | First Cycle |
| 5 | Year of Study: | 2 |
| 6 | Semester: | 3 |
| 7 | ECTS Credits Allocated: | 4.00 |
| 8 | Theoretical (hour/week): | 2.00 |
| 9 | Practice (hour/week): | 0.00 |
| 10 | Laboratory (hour/week): | 0 |
| 11 | Prerequisites: | None |
| 12 | Language: | Turkish |
| 13 | Mode of Delivery: | Face to face |
| 14 | Course Coordinator: | Prof. Dr. Hikmet Sami Yıldırımhan |
| 15 | Course Lecturers: | Prof. Dr. Hikmet S. YILDIRIMHAN Dr. Öğr. Üyesi Rahşen S. KAYA |
| 16 | Contact information of the Course Coordinator: | Uludağ Üniversitesi Fen-Edebiyat Fakültesi Biyoloji Bölümü Görükle Kampüsü, Nilüfer/BURSA 16059 e-posta: yhikmet@uludag.edu.tr Telefon: 0 224 294 17 90 Uludag University Faculty of Arts and Science Department of Biology Gorukle Campus, Nilufer/BURSA 16059 e-mail: yhikmet@uludag.edu.tr Phone: 0 224 294 17 90 |
| 17 | Website: | |
| 18 | Objective of the Course: | The aim of the course is to the principles of classification and the concept of species, it is aimed to explain the differentiation of protostomia and deuterostomia, types of coelom, evolutionary differentiation of unicellular and multicellular invertebrates. |
| 19 | Contribution of the Course to Professional Development: | Knows the general characteristics and systematics of the invertebrates |
| 20 | Learning Outcomes: | |
| | 1 | Makes the definition of species, species criteria, and knows the general properties of invertebrate animals. |
| | 2 | Flagellata, Rhizopoda, Sporozoa, Ciliata belonging to the groups of single-celled creatures and knows the properties. |
| | 3 | Knows the general characteristics of phylum and groups of Sporozoa and Coelenterate, makes systematic. |
| | 4 | Knows the general characteristics of phylum and groups of Plathelminthes and Nematelminthes, makes systematic. |
| | 5 | Knows the general characteristics of phylum and groups of Acanthocephala and Annelida, makes systematic. |
| | 6 | Knows the general characteristics of phylum and groups of Mollusca, makes systematic. |
| | 7 | Knows the general characteristics of phylum and groups of Arthropoda, makes systematic. |

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| | 8 | Knows the general characteristics of phylum and groups of Deuterostomia, makes systematic. | | |
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| 21 | Course Content: | | | |
| | Course Content: | | | |
| Week | Theoretical | Practice | | |
| 1 | Species definition and criteria. Nomenclature and classification of invertebrate animals. Explaining the general characteristics of the species. | | | |
| 2 | Explaining the general characteristics and systematics of the phylum Rhizopoda and Flagellata. | | | |
| 3 | Explaining the general characteristics and systematics of the phylum Sporozoa and Ciliata. | | | |
| 4 | Explaining the general characteristics and systematics of the phylum Spongiaria and Coelenterata. | | | |
| 5 | Explaining the general characteristics and systematics of the phylum Plathelminthes, Nemathelminthes and Acanthocephala. | | | |
| 6 | Midterm exam I and subject repetition | | | |
| 7 | Explaining the general characteristics and | | | |
| Activites | | Number | Duration (hour) | Total Work Load (hour) |
| 8 | Theoretical | 14 | 2.00 | 28.00 |
| Practicals/Labs | | 0 | 0.00 | 0.00 |
| Self study and preperation | | 3 | 9.00 | 27.00 |
| 9 | Explaining the general characteristics and | 1 | 30.00 | 30.00 |
| Homeworks | | 1 | 30.00 | 30.00 |
| 10 | Projects | 1 | 24.00 | 24.00 |
| Field Studies | | 0 | 0.00 | 0.00 |
| 11 | Midterm exams | 1 | 4.00 | 4.00 |
| Others | | 0 | 0.00 | 0.00 |
| 12 | Final Exams | 1 | 2.00 | 2.00 |
| Total Work Load | | | | 115.00 |
| Total work load/ 30 hr | | | | 3.83 |
| ECTS Credit of the Course | | | | 4.00 |
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| 22 | Textbooks, References and/or Other Materials: | Lecturer's course notes. Salman, S. 2006. Omurgasız Hayvanlar Biyolojisi, Aktaç, N. 2003. Omurgasız hayvanlar Ders kitabı Brusca, R. C. ve Brusca, G. J. 2003. Invertebrates. Campell, N. A. ve Reece, J. B. 2008. Biology. Türkçe Çeviri (eds. E. Gündüz, A. Demirsoy, İ. Türkan). Palme Yayınevi. Pechenik, J. A. 2005. Biology of the Invertebrates, fifth edition. Mc Graw Hill. | | |
| 23 | Assesment | | | |

| TERM LEARNING ACTIVITIES | NUMBER | WEIGHT |
|------------------------------------------------------------------|-------------------------|--------|
| Midterm Exam | 1 | 40.00 |
| Quiz | 0 | 0.00 |
| Home work-project | 0 | 0.00 |
| Final Exam | 1 | 60.00 |
| Total | 2 | 100.00 |
| Contribution of Term (Year) Learning Activities to Success Grade | | 40.00 |
| Contribution of Final Exam to Success Grade | | 60.00 |
| Total | | 100.00 |
| Measurement and Evaluation Techniques Used in the Course | The writing examination | |

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

| | PQ1 | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ10 | PQ11 | PQ12 | PQ13 | PQ14 | PQ15 | PQ16 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| ÖK1 | 3 | 2 | 4 | 5 | 3 | 4 | 2 | 5 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK2 | 3 | 1 | 4 | 5 | 3 | 4 | 2 | 5 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK3 | 5 | 1 | 3 | 5 | 3 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK4 | 5 | 1 | 4 | 5 | 3 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK5 | 5 | 1 | 4 | 5 | 3 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK6 | 5 | 1 | 4 | 5 | 3 | 4 | 3 | 3 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK7 | 5 | 1 | 4 | 5 | 3 | 4 | 3 | 3 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |
| ÖK8 | 5 | 1 | 4 | 5 | 3 | 4 | 3 | 3 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 |

LO: Learning Objectives PQ: Program Qualifications

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| Contribution Level: | 1 very low | 2 low | 3 Medium | 4 High | 5 Very High |
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