

# PLANT ECOLOGY

|    |                                                         |                                                                                                                                                                                                                                                                                                                                                            |
|----|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Course Title:                                           | PLANT ECOLOGY                                                                                                                                                                                                                                                                                                                                              |
| 2  | Course Code:                                            | BYL4032                                                                                                                                                                                                                                                                                                                                                    |
| 3  | Type of Course:                                         | Optional                                                                                                                                                                                                                                                                                                                                                   |
| 4  | Level of Course:                                        | First Cycle                                                                                                                                                                                                                                                                                                                                                |
| 5  | Year of Study:                                          | 4                                                                                                                                                                                                                                                                                                                                                          |
| 6  | Semester:                                               | 8                                                                                                                                                                                                                                                                                                                                                          |
| 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. HÜLYA ARSLAN                                                                                                                                                                                                                                                                                                                                     |
| 15 | Course Lecturers:                                       | Prof. Dr. Hülya ARSLAN                                                                                                                                                                                                                                                                                                                                     |
| 16 | Contact information of the Course Coordinator:          | <p>Uludağ Üniversitesi Fen-Edebiyat Fakültesi Biyoloji Bölümü<br/>Görükle Kampüsü, Nilüfer/BURSA 16059<br/>e-posta: arslanh@uludag.edu.tr<br/>Telefon: 0 224 294 17 99</p> <p>Uludag University Faculty of Arts and Science Department of Biology<br/>Gorukle Campus, Nilufer/BURSA 16059<br/>e-mail: arslanh@uludag.edu.tr<br/>Phone: 0 224 294 17 99</p> |
| 17 | Website:                                                |                                                                                                                                                                                                                                                                                                                                                            |
| 18 | Objective of the Course:                                | The aim of the course is to define the ecological factors and their effects on plant properties. The goals are to teach the biotic and abiotic factors, their properties and special plant adaptation such as anatomical, morphological characteristics and distribution on the world.                                                                     |
| 19 | Contribution of the Course to Professional Development: |                                                                                                                                                                                                                                                                                                                                                            |
| 20 | Learning Outcomes:                                      |                                                                                                                                                                                                                                                                                                                                                            |
|    | 1                                                       | Defining the ecological factors affecting the plant growth, distribution and grouping.                                                                                                                                                                                                                                                                     |
|    | 2                                                       | Understanding the effects of light and temperature on plants.                                                                                                                                                                                                                                                                                              |
|    | 3                                                       | Understanding the effects of humidity, precipitation and wind on plants.                                                                                                                                                                                                                                                                                   |
|    | 4                                                       | Understanding the effects of edaphic factors on plants.                                                                                                                                                                                                                                                                                                    |
|    | 5                                                       | Understanding the effects of topographic factors on plants.                                                                                                                                                                                                                                                                                                |
|    | 6                                                       | Understanding the effects of plants on other plants.                                                                                                                                                                                                                                                                                                       |
|    | 7                                                       | Understanding the effects of animals on other plants.                                                                                                                                                                                                                                                                                                      |
|    | 8                                                       | Relating the characteristics of biomes on earth and environmental factors.                                                                                                                                                                                                                                                                                 |
|    | 9                                                       |                                                                                                                                                                                                                                                                                                                                                            |
|    | 10                                                      |                                                                                                                                                                                                                                                                                                                                                            |

|                                                                  |                                                                                        |                                                                |                 |                        |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------|------------------------|
| 21                                                               | Course Content:                                                                        |                                                                |                 |                        |
|                                                                  | Course Content:                                                                        |                                                                |                 |                        |
| Week                                                             | Theoretical                                                                            | Practice                                                       |                 |                        |
| 1                                                                | Some basic concepts in plant ecology.                                                  |                                                                |                 |                        |
| 2                                                                | Classification of ecological factors.                                                  |                                                                |                 |                        |
| 3                                                                | Light as ecological factor and it's effects of on plants.                              |                                                                |                 |                        |
| 4                                                                | Temperature as ecological factor and it's effects of on plants.                        |                                                                |                 |                        |
| 5                                                                | Humidity and precipitation as ecological factor and their effects of on plants.        |                                                                |                 |                        |
| 6                                                                | Wind as ecological factor and it's effects of on plants.                               |                                                                |                 |                        |
| 7                                                                | The effects of edaphic factors such as soil texture, soil water and soil pH on plants. |                                                                |                 |                        |
| 8                                                                | Repeating courses and midterm exam                                                     |                                                                |                 |                        |
| 9                                                                | Topographic factors.                                                                   |                                                                |                 |                        |
| 10                                                               | Fire and it's effects.                                                                 |                                                                |                 |                        |
| 11                                                               | Biotic factors: Lianas, epiphytes, saprophytes, parasites.                             |                                                                |                 |                        |
| Activites                                                        |                                                                                        | Number                                                         | Duration (hour) | Total Work Load (hour) |
| Theoretical                                                      |                                                                                        |                                                                |                 |                        |
| 14                                                               | World biomes and characterisitcs.                                                      |                                                                |                 |                        |
| Practicals/Labs                                                  |                                                                                        |                                                                |                 |                        |
| 22                                                               | Textbooks, References and/or Other Self-study and preperation Materials:               | M. KILINÇ, H.G. KUTBAY, Bitki Ekolojisi, Palme Yayıncılık 2004 |                 |                        |
| Homeworks                                                        |                                                                                        |                                                                |                 |                        |
| Projects                                                         |                                                                                        | Basımevi, 1992.                                                |                 |                        |
| Field Studies                                                    |                                                                                        |                                                                |                 |                        |
| Midterm Exams                                                    |                                                                                        |                                                                |                 |                        |
| TERM LEARNING ACTIVITIES                                         |                                                                                        | NUMBE                                                          | WEIGHT          |                        |
| Others                                                           |                                                                                        |                                                                |                 |                        |
| Midterm Exam                                                     |                                                                                        | 1                                                              | 40.00           |                        |
| Final Exams                                                      |                                                                                        |                                                                |                 |                        |
| Total Work Load                                                  |                                                                                        |                                                                |                 |                        |
| Home work-project                                                |                                                                                        | 0                                                              | 0.00            |                        |
| Total work load/ 30 hr                                           |                                                                                        |                                                                |                 |                        |
| ECTS Credit of the Course                                        |                                                                                        |                                                                |                 | 4.00                   |
| 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         |                                                                                        |                                                                |                 |                        |
| 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                                                   | 0                                                             | 0   | 0   | 4     | 0   | 0   | 0        | 0   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK2                                                   | 0                                                             | 0   | 0   | 4     | 0   | 0   | 0        | 4   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK3                                                   | 0                                                             | 0   | 0   | 4     | 0   | 0   | 0        | 4   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK4                                                   | 0                                                             | 0   | 0   | 4     | 3   | 0   | 0        | 4   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK5                                                   | 0                                                             | 0   | 0   | 4     | 0   | 0   | 0        | 4   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK6                                                   | 0                                                             | 0   | 0   | 0     | 0   | 5   | 0        | 5   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK7                                                   | 0                                                             | 0   | 0   | 0     | 0   | 5   | 0        | 4   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| ÖK8                                                   | 0                                                             | 0   | 0   | 0     | 0   | 4   | 4        | 5   | 0   | 0      | 0    | 0    | 0           | 0    | 0    | 0    |
| LO: Learning Objectives    PQ: Program Qualifications |                                                               |     |     |       |     |     |          |     |     |        |      |      |             |      |      |      |
| Contribution Level:                                   | 1 very low                                                    |     |     | 2 low |     |     | 3 Medium |     |     | 4 High |      |      | 5 Very High |      |      |      |