

PROTECTED VEGETABLE CULTIVATION

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| 1 | Course Title: | PROTECTED VEGETABLE CULTIVATION | |
| 2 | Course Code: | BAH3102 | |
| 3 | Type of Course: | Compulsory | |
| 4 | Level of Course: | First Cycle | |
| 5 | Year of Study: | 3 | |
| 6 | Semester: | 6 | |
| 7 | ECTS Credits Allocated: | 3.00 | |
| 8 | Theoretical (hour/week): | 1.00 | |
| 9 | Practice (hour/week): | 2.00 | |
| 10 | Laboratory (hour/week): | 0 | |
| 11 | Prerequisites: | None | |
| 12 | Language: | Turkish | |
| 13 | Mode of Delivery: | Face to face | |
| 14 | Course Coordinator: | Doç. Dr. NURAY AKBUDAK | |
| 15 | Course Lecturers: | Doç.Dr. Nuray AKBUDAK | |
| 16 | Contact information of the Course Coordinator: | Bursa Uludağ Üniversitesi Ziraat Fakültesi Bahçe Bitkileri Bölümü Görükle Kampusu - Bursa Telefon: 224-2941486 E-posta: nakbudak@uludag.edu.tr | |
| 17 | Website: | | |
| 18 | Objective of the Course: | To introduction to production in greenhouses, production techniques in green houses, fine tuning of growing condition in greenhouses. | |
| 19 | Contribution of the Course to Professional Development: | Greenhouse has made the promotion of great importance for Turkey and greenhouse vegetable cultivation. A basic professional awareness and knowledge is provided. | |
| 20 | Learning Outcomes: | | |
| | | 1 | Understand how to grow summer vegetables in greenhouses |
| | | 2 | Understand how to grow vegetables in tunnels |
| | | 3 | Selection of species and cultivars according to growing seasons |
| | | 4 | Seedling production |
| | | 5 | Application of practical growing techniques |
| | | 6 | Solve problems during production |
| | | 7 | Controlling greenhouse conditions |
| | | 8 | Understand and apply new growing techniques |
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| 21 | Course Content: | | |
| | | Course Content: | |
| Week | Theoretical | Practice | |
| 1 | Greenhouse Vegetable Production in the World and in Turkey | Selection of students working groups and establishment of tunnels | |
| 2 | Low and High Plastic Tunnels | Introduction of greenhouse parts | |

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| 3 | Classification of greenhouses and factors affecting site selection of the greenhouse | Analysis of growing conditions and soil preparation in greenhouses |
| 4 | Greenhouse structure elements and regulating greenhouse air | Seed sowing |
| 5 | Soil tillage, irrigation and fertilization in greenhouses | Seedling grafting in vegetables |
| 6 | Growing tomatoes in the greenhouse | Production under tunnels |
| 7 | Growing pepper in the greenhouse | Hanging of plants in greenhouse |
| 8 | Growing eggplant in the greenhouse | Pruning in vegetables |
| 9 | Growing cucumber in the greenhouse | Technical visit to greenhouses in the region |
| 10 | Pruning techniques for cucumber and other vegetables | Pollination and application plant growth regulators |
| 11 | Growing squash in the greenhouse | Harvest |
| 12 | Growing melon and watermelon in the greenhouse | Presentation of results |
| 13 | Growing beans in the greenhouse | Organik vegetable production in greenhouses. |
| 14 | Growing lettuce in the greenhouse | Soilless culture |

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| 22 | Textbooks, References and/or Other Materials: | Tüzel, Y. ve Gül, A. 2008. Seralarda İyi Tarım Uygulamaları. Tıbyan Yayıncılık, 172 s. Sevgican, A. 1999. Örtüaltı Sebzeçiliği (Topraklı Tarım). Ege Univ. Zir. Fak. Yay. No :528, İzmir, 302 s. Hanan, J.J. 1998. Greenhouses. Advanced Technology for Protected Horticulture. CRC Press LLC. |
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| Activites | Number | Duration (hour) | Total Work Load (hour) |
|----------------------------------------------------------------|--------|-----------------|------------------------|
| Theoretical | 14 | 1.00 | 14.00 |
| 23 Assessment | 14 | 2.00 | 28.00 |
| Practicals/Labs | 14 | 1.00 | 10.00 |
| Self study and preperation | 5 | 2.00 | 10.00 |
| Homeworks | 10 | 0.00 | 0.00 |
| Quiz | 1 | 2.00 | 2.00 |
| Projects | 14 | 1.00 | 14.00 |
| Field Studies | 1 | 2.00 | 2.00 |
| Midterm exams | 1 | 0.00 | 0.00 |
| Others | 40 | 12.00 | 12.00 |
| Contribution of Term (Year) Learning Activities to Final Exams | 1 | 0.00 | 0.00 |
| Success Grade | 1 | 0.00 | 0.00 |
| Total Work Load | | | 90.00 |
| Contribution of Final Exam to Success Grade | 1 | 0.00 | 0.00 |
| Total work load/ 30 hr | | | 3.00 |
| ECTS Credit of the Course | | | 3.00 |

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| Measurement and Evaluation Techniques Used in the Course | They carry out a midterm, a final and a project within the scope of the application. |
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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 | 5 | 4 | 4 | 2 | 3 | 1 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK2 | 5 | 4 | 4 | 2 | 3 | 1 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK3 | 5 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

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| ÖK4 | 5 | 4 | 3 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK5 | 5 | 5 | 3 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK6 | 5 | 5 | 3 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK7 | 5 | 5 | 3 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK8 | 5 | 5 | 4 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 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 | | | |