# DESIGN OF PLANT PROTECTION MACHINERY

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| 1 | Course Title: | DESIGN OF PLANT PROTECTION MACHINERY |
| 2 | Course Code: | BSM6012 |
| 3 | Type of Course: | Optional |
| 4 | Level of Course: | Third Cycle |
| 5 | Year of Study: | 1 |
| 6 | Semester: | 2 |
| 7 | ECTS Credits Allocated: | 5.00 |
| 8 | Theoretical (hour/week): | 2.00 |
| 9 | Practice (hour/week): | 2.00 |
| 10 | Laboratory (hour/week): | 0 |
| 11 | Prerequisites: | No prerequisites |
| 12 | Language: | Turkish |
| 13 | Mode of Delivery: | Face to face |
| 14 | Course Coordinator: | Prof. Dr. KAMİL ALİBAŞ |
| 15 | Course Lecturers: | Yok |
| 16 | Contact information of the Course Coordinator: | e-posta : alibas@uludag.edu.tr<br>Telefon: 0 224 2941601<br>Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA |
| 17 | Website: | |
| 18 | Objective of the Course: | Some Plant Protection Machinery issues is given in more details in this course which is not given in Undergraduate education, After this lesson, students solve same problems of Plant Protection Machinery |
| 19 | Contribution of the Course to Professional Development: | |
| 20 | Learning Outcomes: | |

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| | 1 | Learns of Plant Protection systems,<br>learns to machines used in plant protections machinery which usu of chemical |
| | 2 | Should be aware that all parts of agricultural machines of war. Setting and maintenance of agricultural machinery should be able to battle |
| | 3 | Agricultural machines of war able to do the calibration |
| | 4 | Agricultural able to do calculations for Plant Protection Machinery |
| | 5 | Plant Protection Machinery able to make calculations of the pump power |
| | 6 | Adversities faced by the development of machines able to make designs |
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| 21 | Course Content: | |
| | **Course Content:** | |
| Week | Theoretical | Practice |
| 1 | Methods of Plant Protection | Solved problems and practise about the subject |

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| **2** | Classification of plant protection machines. Pulverization technique | Solved problems and practise about the subject |
| **3** | Pulverization technique | Solved problems and practise about the subject |
| **4** | Sprayers (tank, mixer and pump) | Solved problems and practise about the subject |
| **5** | Choice of Sprayers pump, air tank, pressure regulator and pressure gauges | Solved problems and practise about the subject |
| **6** | Sprayers used pipe, hose, valves and filters | Solved problems and practise about the subject |
| **7** | Sprayers used pipes and suspension systems, flow-rate and dosing systems | Solved problems and practise about the subject |
| **8** | Spreyers nozzles | Solved problems and practise about the subject |
| **9** | Spreyers nozzles | Solved problems and practise about the subject |
| **10** | Types and working principles of sprayer | Solved problems and practise about the subject |
| **11** | Foggers, electrostatic charging technique | Solved problems and practise about the subject |
| **12** | Pollinators, and practitioners of micropellets | Solved problems and practise about the subject |
| **13** | Fumugasyon and soil stebilizations | Solved problems and practise about the subject |
| **14** | Calibration of spraying machines | Solved problems and practise about the subject |

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| **22** | Textbooks, References and/or Other Materials: | -Prof. Dr. İbrahim Çilingir ve Doç. Dr. Engin Dursun 2002. Bitki Koruma Makinaları. A.Ü. Ziraat Fakültesi Yayınları No:1531, Ders kitabı:484. ISBN 975-482-574-2 (248 s).<br>-Prof. Dr. Abdülkadir Yağcıoğlu 1993. Bitki Koruma Makinaları Ege. Ü. Ziraat Fakültesi Yayınları No:508. ISBN 975-483-220-X (338 s).<br>-Prof. Dr. Emin Güzel 1998. Hasat-Harman İlkeleri ve |

| Activites | Number | Duration (hour) | Total Work Load (hour) |
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| Theoretical | 14 | 2.00 | 28.00 |
| Practicals/Labs | 14 | 2.00 | 28.00 |
| Self study and preperation | 10 | 6.00 | 60.00 |
| Homeworks | 6 | 4.00 | 24.00 |
| Projects | 0 | 0.00 | 0.00 |
| Quiz | 0 | 0.00 | 0.00 |
| Field Studies | 0 | 0.00 | 0.00 |
| Midterm exams | 0 | 0.00 | 0.00 |
| Final Exam | 1 | 100.00 | 0.00 |
| Others | 0 | 0.00 | 0.00 |
| Final Exams | 1 | 40.00 | 40.00 |
| Contribution of Term (Year) Learning Activities to | 0.00 | | |
| Total Work Load | | | 180.00 |
| Total work load / 30 hr | | | 6.00 |
| Contribution of Final Exam to Success Grade | 100.00 | | |
| ECTS Credit of the Course | | | 5.00 |

| TERM LEARNING ACTIVITIES | NUMBER | WEIGHT |
|---|---|---|
| Quiz | 0 | 0.00 |
| Midterm exams | 0 | 0.00 |
| Final Exam | 1 | 100.00 |
| Final Exams | 1 | 40.00 |
| Contribution of Term (Year) Learning Activities to | | 0.00 |
| Contribution of Final Exam to Success Grade | | 100.00 |

| Measurement and Evaluation Techniques Used in the Course | |
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| **24** | **ECTS / WORK LOAD TABLE** |

| **25** | **CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS** | | | | | | | | | | | | | | | |
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| | **PQ1** | **PQ2** | **PQ3** | **PQ4** | **PQ5** | **PQ6** | **PQ7** | **PQ8** | **PQ9** | **PQ10** | **PQ11** | **PQ12** | **PQ13** | **PQ14** | **PQ15** | **PQ16** |
| **ÖK1** | 3 | 2 | 2 | 2 | 4 | 1 | 1 | 5 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 |
| **ÖK2** | 3 | 2 | 2 | 2 | 4 | 1 | 1 | 5 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 |
| **ÖK3** | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 5 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 |

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| **ÖK4** | 4 | 2 | 2 | 2 | 4 | 1 | 1 | 5 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 |
| **ÖK5** | 4 | 2 | 2 | 2 | 4 | 1 | 1 | 5 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 |
| **ÖK6** | 4 | 4 | 3 | 2 | 4 | 1 | 1 | 5 | 3 | 3 | 2 | 4 | 0 | 0 | 0 | 0 |

**LO: Learning Objectives PQ: Program Qualifications**

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