

# PLANT PROTECTION MACHINES

<b>1</b>	Course Title:	PLANT PROTECTION MACHINES
<b>2</b>	Course Code:	BSM2510
<b>3</b>	Type of Course:	Compulsory
<b>4</b>	Level of Course:	First Cycle
<b>5</b>	Year of Study:	2
<b>6</b>	Semester:	4
<b>7</b>	ECTS Credits Allocated:	4.00
<b>8</b>	Theoretical (hour/week):	2.00
<b>9</b>	Practice (hour/week):	2.00
<b>10</b>	Laboratory (hour/week):	0
<b>11</b>	Prerequisites:	No prerequisites
<b>12</b>	Language:	Turkish
<b>13</b>	Mode of Delivery:	Face to face
<b>14</b>	Course Coordinator:	Prof. Dr. KAMİL ALİBAŞ
<b>15</b>	Course Lecturers:	Doç. Dr. Halil Ünal
<b>16</b>	Contact information of the Course Coordinator:	e-posta : alibas@uludag.edu.tr Telefon: 0 224 2941601 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA
<b>17</b>	Website:	
<b>18</b>	Objective of the Course:	Mehods of Agricultural fight , plant protection machines, Pulverization mehod, drug norms, selection of drop extent, drop's clinging to the taget, application of fluid drugs, main components of mechanical pulverizators, structural and functional characteristics of certain mechanical pulverizators, machines used in allocation of solid drugs, application of gas drugs, machines of application medicine seed, calibration of machines, proceeding involves cutting of plants, classification of harvest methods, grass cutting, bale,silaj machines, collating theory, combine, harvester, beet harvester and fruit harvester. Is to teach the techniques of applying solid, fluid and gas drugs used in agricultural fight and also to teach the usage and working principles of the machines and agricultural appliances used in applying of these drug; to make them able to improve harvesters and blending machines by teaching working principles of existing harvesters and their equipment with assessing from the point of engineering; and also to make them able develop new discoveries.
<b>19</b>	Contribution of the Course to Professional Development:	
<b>20</b>	Learning Outcomes:	
	<b>1</b>	To instruct the importance of agricultural fight and the techniques of agricultural fight used for this purpose,
	<b>2</b>	To introduce machines used in chemical fight and to teach the working principles of these machines,
	<b>3</b>	To instruct the calculation about agricultural fight machines,
	<b>4</b>	To instruct setting and maintenance of the machines used in agricultural fight
	<b>5</b>	
	<b>6</b>	
	<b>7</b>	

		8	
		9	
		10	
<b>21</b>	Course Content:		
	<b>Course Content:</b>		
Week	Theoretical	Practice	
1	Plant Protections metohods	Solved problems and practise about the subject	
2	Agricultural combat methods. The classification of agricultural combat machinery.	Solved problems and practise about the subject	
3	The Pulverisation Technique. The Parts of the Atomiser	Solved problems and practise about the subject	
4	The Parts of the Atomiser	Solved problems and practise about the subject	
5	Atomiser Nozzles	Solved problems and practise about the subject	
6	Atomiser Nozzles. The Kinds of Atomisers.	Solved problems and practise about the subject	
7	Fan nozzles	workshop practice	
8	Repeating courses and midterm exam	Repetition of a course	
9	Hydraulic characteristics of nozzles	workshop practice	
10	Field and orchard drift roofs measures taken again of sprayer	workshop practice	
11	Machines used in the distribution of solid drugs	workshop practice	
12	Helicopters and planes used to fight for Agricultural	workshop practice	
13	To teach Maintenance and repair Work Before and After of Spraying Machines	workshop practice	
14	General evaluation	workshop practice exam	
<b>22</b>	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). -Prof. Dr. Abdülkadir Yağcıoğlu 1993. Bitki Koruma Makinaları Ege. Ü. Ziraat Fakültesi Yayınları No:508. ISBN 975-483-220-X (338 s). -Prof. Dr. Emin Güzel 1998. Hasat-Harman İlkeleri ve Makinaları. Ç.Ü. Ziraat Fakültesi Yayınları No:194, Ders kitabı:A-60. (394 s). -Prof. Poyraz Ülger ve Arkadaşları.1996 Tarım Makinaları İlkeleri. Trakya Ü.Tekirdağ Ziraat Fakültesi No:29 (435 s).	
<b>23</b>	Assesment		
<b>TERM LEARNING ACTIVITIES</b>		<b>NUMBE R</b>	<b>WEIGHT</b>
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	

<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>
-----------	-------------------------------

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	5	5.00	25.00
Homeworks	3	3.00	9.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	15.00	15.00
Others	0	0.00	0.00
Final Exams	1	15.00	15.00
<b>Total Work Load</b>			<b>135.00</b>
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

<b>25</b>	<b>CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS</b>
-----------	--

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
<b>ÖK1</b>	3	2	2	2	4	1	1	5	2	2	2	4	0	0	0	0
<b>ÖK2</b>	3	2	2	2	4	1	1	5	2	2	2	4	0	0	0	0
<b>ÖK3</b>	3	2	2	3	4	1	1	5	2	2	2	4	0	0	0	0
<b>ÖK4</b>	4	2	2	2	4	1	1	5	2	2	2	4	0	0	0	0

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

<b>Contribution Level:</b>	<b>1 very low</b>	<b>2 low</b>	<b>3 Medium</b>	<b>4 High</b>	<b>5 Very High</b>
----------------------------	-------------------	--------------	-----------------	---------------	--------------------