METEOROLOGY

1	Course Title:	METEOROLOGY	
2	Course Code:	BSM1503	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:		
12	Language:	English	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Erkan Yaslıoğlu	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	yasli@uludag.edu.tr, 0224-2941624, U.Ü. Ziraat Fakültesi Biyosistem Mühendisliği Bölümü, Görükle, Bursa.	
17	Website:		
18	Objective of the Course:	To learn the science of meteorology and its role and importance in agricultural practices.	
19	Contribution of the Course to Professional Development:	Student can analyze and use meteorological data in agricultural applications in own future professional carrier.	
20	Learning Outcomes:		
		1	List the sub-branches of meteorology.
		2	List and define the layers of the atmosphere.
		3	Defines meteorological parameters such as pressure, temperature, humidity, wind speed, insolation and explains their role in agricultural practices.
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Introduction to Meteorology	
2	Agricultural Meteorology and its importance to crop production.	
3	Climate and weather – factors affecting climate and weather.	
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5	Light – effect of light intensity, quality, direction and duration on crop production – air temperature – factors affecting temperature.	
6	Diurnal and seasonal variation in air temperature– isotherm. Heat unit definition and its use – heat and cold waves – role of temperature in crop production.	
7	Atmospheric pressure – diurnal and seasonal variation – pressure systems of the world – causes of variation – isobar – low, depression, anticyclone, tornado, hurricane and storms.	
8	Wind – wind systems of the world – inter tropical convergence zones (ITCZ) – wind speed in different seasons – effect of wind on crop production.	
9	Humidity –absolute humidity – specific humidity –relative humidity – mixing ratio, dew point temperature – vapour pressure deficit -diurnal variation in relative humidity and its effect on crop production.	
10	Evaporation – transpiration, evapotranspiration – potential evapotranspiration – definition and their importance in agricultural production.	
11	Agroclimatic normals, weather forecasting – types, importance – synoptic chart – crop weather calendar	
12	Definition and uses of remote sensing and variability.	
13	Definition and uses of remote sensing and variability.	
14	Materials:	and Climate Risks in Agriculture. Springer-Verlag Berlin Heidelberg. 520 pp.
15		An Educator's Resource for Inquiry-Based Learning for Grades 5-9. National Aeronautics and Space
16		

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	20	2.00	40.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	6.00	6.00
Others	0	0.00	0.00
Final Exams	1	12.00	12.00
Total Work Load			86.00
Total work load/ 30 hr			2.87
ECTS Credit of the Course			3.00

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		Multiple choice test.

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	4	1	2	0	0	0	0	0	3	4	2	0	0	0	0	0
ÖK2	3	4	2	0	1	0	0	0	3	3	2	0	0	0	0	0
ÖK3	4	4	3	4	5	0	0	5	4	5	2	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**			