

GAMETOGENESIS AND EMBRYO DEVELOPMENT IN FRUIT SPECIES

1	Course Title:	GAMETOGENESIS AND EMBRYO DEVELOPMENT IN FRUIT SPECIES	
2	Course Code:	BAB6013	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:		
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. ÜMRAN ERTÜRK	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	E-posta: umrane@uludag.edu.tr Telefon: 0 224 2941471 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Bahçe Bitkileri Bölümü, Görükle Kampüsü, 16059 Nilüfer, Bursa	
17	Website:		
18	Objective of the Course:		
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Learn flower arrangements in fruit species
		2	The importance of pollination and fertilization in fruit behavior
		3	Learn about conflict and infertility
		4	Learn factors affecting gamet formation factors
		5	Learn the importance of variety selection when setting up a fruit orchard
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Flower Formation in Fruit Species		
2	Male Gamet Formation (Pollen Development)		
3	Female Gamet Formation		
4	Environmental Factors Affecting Male and Female Gamet Formation		

5	Physiological Factors Affecting Male and Female Gamet Formation	
6	Powder and Pollen Stigma Interaction	
7	Pollen Slaughter, Tube Development and Fertilization	
8	Infertility in fruit species	
9	Incompability in fruit species	
10	Endosperm and embryo development	
11	Apomixis and parthenocarpy	
12	Development of fruit	
13	Discussion of research topics	
14	Discussion of research topics	

22	Textbooks, References and/or Other Materials:	<p>Heslop – Harrison, J. 1972. Sexuality of Angiosperms. (In F.C. Steward. Editor) Plant Physiology. Academic Press New York and London 133 – 289.</p> <p>Hartmann, F.O. and Howlett, H. 1954. Fruit Setting of the Delicious Apple. Ohio Agr. Exp. Sta. Res. Bull. 745, 64 p.</p> <p>Polito, V.S., 1985. Flower Differentiation and Pollination. In: D.E. Ramos, Editor, Walnut Orchard Management, 81-86. Univ. Of California, Cooperative Extension, USA.</p> <p>Mckay, J.W. 1947. Embryology of pecan. J. Agr. Res. 263-283.</p> <p>Ayfer, M. 1967. Antep Fıstığında Megasporogenesis, Megagametogenesis Embryogenesis ve Bunlarda Meyve Dışındaki Aşılma ve Mitozların Temel Özellikleri.</p>
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	5.00	70.00
Homeworks	4	10.00	40.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			154.00
Contribution of 30% (Year) Learning Activities to Success Grade	0.00		5.13
ECTS Credit of the Course			5.00
Contribution of Final Exam to Success Grade	100.00		
Total	100.00		
Measurement and Evaluation Techniques Used in the Course			

24	ECTS / WORK LOAD TABLE
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[illegible]

ÖK3	4	3	4	3	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	4	3	3	4	3	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																	
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High				