

<b>BOT 642 Seed Ecology</b> علم بيئة البذور	
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<b>COURSE INFORMATION</b>	
<b>Course code:</b> BOT 642	<b>Number of units:</b> 2 (2+0)
<b>Course Description:</b> Soil as seed storage, Dynamics of seed reproduction in plants, Post-dispersal of seed and prior danger, Seed dormancy and its effects on germination. Example of seed dormancy and the strategy of seed, germination in desert and other habitats under natural conditions in the Kingdom of Saudi Arabia.	
التربة كمخزن للبذور، ديناميكيات تكاثر البذور النباتية، مخاطر ما بعد تشتت البذور، سكون البذور وتأثيره على الإنبات. مثال على سكون البذور واستراتيجية البذور والإنبات في الصحراء والموائل الأخرى في ظل الظروف الطبيعية في المملكة العربية السعودية.	
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<b>Course Learning Outcomes (CLOs)</b>	
– Recognize dynamics of seed reproduction in plants	
– Enumeration of seed biotechnologies	
– Definition of biological processes that deal with seed germination	
– Description of seed bank	
– Understanding the environmental conditions that impose dormancy and induce germination	
– Ability to express opinions and criticize peers	
– Ability to bear responsibility and cope with positive and negative criticism from others	
– Ability to use information media	
– Ability to research about scientific materials	
<b>Course topics</b>	
1. The seed	
2. Shapes and sizes of seeds	
3. Germination	
4. Factors affecting germination	
5. Dormancy	
6. water and Temperature	
7. Gases and light	
8. Osmotic pressure ( $\pi$ ) and pH	
9. Salinity and marinating - drying	

10. Depth of placing seeds in the soil	
11. Seed warehouse in soil (seed bank) 1	
12. Seed warehouse in soil (seed bank) 2	
13. Seed technique 1	
14. Seed technique 2	
<b>Assessment Tasks for Students</b>	
Midterm exam	25
Course activities	35
Final exam	40
<b>Total</b>	<b>100</b>