Master Botany Short Course Description

Course Code	Course Title	Credits (Lect.-Exre.-Pract.)
BOT 512	PLANT SURFACES	2(1+0+2)
Introduction – plant surfaces studying techniques – surfaces fine structures – surfaces bio-construction – surfaces function – role in dissemination and reproduction		
BOT 514	APPLIED PLANT ANATOMY	2(1+0+2)
Introduction – Tissue systems – Root, stem, leaf histology – Meristems– Secondary xylem an phloem – Adapting characteristics – Fruits and flower anatomy – Economic importance of applied plant anatomy		
BOT 521	ADVANCED ANGIOSPERM TAXONOMY	2(1+0+2)
Use of anatomy in taxonomy – Biochemistry – plant geography – electron microscopy In plant taxonomy		
BOT 523	FIELD SYSTEMATICS	2(1+0+2)
Studying of flowering plant in Saudi Arabia – Its characteristics, classification, environment, geographic distribution – plant samples preservation (field trip for 10 days).		
BOT 541	ADVANCED ECOLOGY	2(1+0+2)
Seed ecology – Dissemination – Seed stores in soil as ecology indicator– Salt indicators – Ground water indicators – Rows indicators in soil – Heavy metals toxicity		
BOT 543	DESERTIFICATION & CONSERVATION OF NATURAL RESOURCES	2(2+0+0)
Desertification as global phenomenon – Desertification in Arabic word, reasons and aspects - Modern methods to curb desertification – Natural resources and its types, and maintenance ways		
BOT 551	ADVANCED GENETICS	2(1+0+2)
Chemical and genetics structure of microbial genetics element – Genes – Plasmids – Reproduction and gene expression – Transformation – Genetic engineering		
BOT 553	ADVANCED CYTOGENETICS	3(2+0+2)
Chromosomal apparitions in economic plants (numerical and structural) – mode of Chromosomal apparitions – importance of Chromosomal		
BOT 571	BIOSYNTHESIS	2(2+0+0)
Photosynthesis – Phosphorylation – Lipids and protein synthesis – Energy estimation		

BOT 572	PLANT MINERAL NUTRITION	3(2+0+2)
Physiological role of elements – its deficiency symptoms, mode of absorption – regulation of transportation in tissue		
BOT 591	SPECIAL TOPICS	1(1+0+0)
Selective topics in botany		
BOT 592	SEMINAR	1(1+0+0)
Presentation and discussion of selected topics in botany according to the guidance of the course instructor		
BOT 596	THESIS PROPOSAL PREPARATION	1(1+0+0)
The student must submit a written research plan to be consider by Research Committee for evaluation to be approved by Department Council		
BOT 600	RESEARCH (THESIS)	1(0+0+6)
The student must submit a long thesis involving proposal research, written by a candidate for a university degree		