



Ministry of Higher Education

King Saud University

Deanship of Graduate Studies

College of Food and Agricultural Sciences

Department of Plant Production

PhD in Range Sciences and Forestry

(Courses and Thesis Option)

By introducing this program, the Department is hoping to utilize quality developments to support scientific research and great expansion in education in the Kingdom in general and King Saud University in particular to achieve leadership in qualifying national candidates with advanced technologies. The Department is well qualified in academic and technical staff, and technical infrastructure needed to support the program.

• **Admission Requirements**

1. Applicants must consider the admission requirements listed in rules organizing the graduate studies in Saudi universities.
2. Applicants are required to have a master degree in range science and forestry. Applicants who have master degrees in one of the fields of other agricultural sciences, or related fields, from King Saud University or other equivalent universities, are required to study some complementary courses as assigned by the Department according to article 18 of the graduate studies regulation.
3. Applicants must show English proficiency by scoring a minimum of 450 on the internet-based TOEFL.
4. Applicants must satisfy department interview requirements.

- **Requirements for Obtaining the Degree:**

The PhD degree program in Range Science and Forestry follows the Courses and Thesis Option. The requirements for obtaining the degree are:

A- Passing 30 study units of the program

B- Successful completion of doctoral dissertation

Further information on requirements for obtaining the degree is as follows:

1. The supervisory committee will specify the courses that the student must study according to his specialty and field of study, provided that they should include 12 compulsory credit hours and 18 elective credit hours of the program.
2. Courses are distributed over four semesters so that the student studies at least 8 hours in each of the first three semesters of the study courses relevant to his specialization.
3. A supervisory committee will be decided upon for a student before the end of the first semester (not less than two teaching staff) based on the student's specialization in the Master's phase, and the interested area of research for the PhD.
4. The selected courses might include a number of graduate courses in the Master degree which had not been previously studied by the student; nevertheless it should not exceed 50% of the elective specialized courses.
5. The supervisory committee guides the student to study any of the graduate courses offered by the Department or other Departments of the college or university required for his study, other than the specialized courses provided that they are calculated as part of his the total elective hours.
6. The student must pass written and oral comprehensive examination, in his major and minor specialty offered by the Department and is being decided by the student's advisory committee, in accordance with the unified Rules of the Graduate Studies in Saudi universities.
7. Preparation and submission of a Dissertation (700 PPS) in one of the research interests of Range Science and Forestry.

- **Program's Tracks (if any):**

The program has the following tracks:

1- Range Science

2- Forestry

- **Program's General Structure:**

- **Courses and Thesis Option**

The study plan is by courses and preparation of Dissertation according to Article 34 (first paragraph) of the rules of the postgraduate studies in universities.

Number of required units is 30 in addition to a thesis as follows:

A. Program Core Courses (12 credit hours)

B. Program Elective Courses (18 credit hours)

Type of Courses	No. of Courses	No. of Units Required
PPS Core Courses	5 Core Courses	12
PPS---/ --- Elective (if any)	6 – 9 Elective Courses	18
Thesis (PPS 700)	Dissertation	--
Total		30

Program Core Courses

PPS 601	Multivariate Analysis	3 (2+1)
PPS 603	Advanced Issues in Agriculture Biotechnology	2 (2+0)
PPS 611	Range and Forest Eco-regions in Kingdom of Saudi Arabia	3 (2+1) 2 (2+0)
PPS 614	Advanced Topics in Range Science and Forestry	2 (2+0)
PPS 695	Discussion	

Program Elective Courses

The student must study at least 18 credit hours from the following courses of the department or other departments or from courses of M.Sc degree in Range Science and Forestry as follows:

1- Department Courses

PPS 610	Nursery Techniques	2 (1+1)
PPS 612	Reproduction and Dispersal of Range and Forest Plants	2 (1+1)
PPS 613	Environmental Impact Assessment in Rangelands and	2 (2+0)
PPS 660	Forests	2 (2+0)
PPS 661	Phenotypic Plasticity in Rangelands	2 (2+0)
PPS 662	Grazing Strategies in arid Range Plants	2 (2+0)
PPS 663	Spatial Ecology in Rangelands	2 (2+0)
PPS 664	Ecology and Management of Invasive Plants	2 (2+0)
PPS 665	Wildlife Ecology and Management	2 (2+0)
PPS 666	Ecological Physiology of Range Plants	2 (2+0)
PPS 670	Rangeland Economics and Analysis	2 (2+0)
PPS 671	Watershed Management	2 (2+0)
PPS 672	Forest Protection and Conservation	2 (1+1)
PPS 673	Biodiversity and Stresses in Forest Ecosystem	2 (2+0)
PPS 674	Forest Plantation and Improvement Technology	2 (2+0)
PPS 675	Stresses in Forest Ecosystems	2 (1+1)
PPS 676	Wood moisture Relationship	2 (1+1)
PPS 677	Wood deterioration and Protection	2 (2+0)
	Wood as a Fuel	

2- Courses from other departments

SOSC 662	Applications of Remote Sensing in Soil	2 (2+0)
SOSC 662	Soil plant Water Relationship	
GEO 521	Geography of the Environment and Natural Resources	3 (2+1)
BOT 674	Seed Physiology	2(2+0)
ANPR 511	Advanced Animal Nutrition	3 (2+1)
SOSC 543	Plant Nutrition	3 (2+1)
SOSC 566	Soil Erosion and Conservation	3 (2+1)
SOSC 573	Soil Microbiology	3 (2+1)
BOT 521	Advanced Angiosperm Taxonomy	2 (1+1)
BOT 541	Advanced Plant Ecology	2 (1+1)
BOT 543	Desertification and Conservation of Natural Resources	2 (2+0)
BID 583	Laws and Legislation of Environmental Protection	1 (1+0)
PLPT 525	Pests of Wooden Trees	2 (1+1)

3- Courses from M.Sc program of Range Science and Forestry

PPS 506	Plant Genetic Resources	2 (2+0)
PPS 518	Vegetation Measurements and Analysis	2 (1+1)
PPS 545	Advanced Forage Crop Production	2 (1+1)
PPS 563	Range Plant-Animal Relationships	2 (2+0)
PPS 564	Ecological Restoration of Rangelands	2 (2+0)
PPS 565	Range Management for Multiple Uses	2 (2+0)
PPS 551	Forest Technical Management	2 (1+1)
PPS 552	Forest Products Utilization	2 (2+0)
PPS 553	Forest Ecology	2 (2+0)
PPS 554	Tree Physiology	2 (2+0)
PPS 555	Forest Measurement and Inventory	2 (2+0)

PPS 556	Tree Seeds	2 (2+0)
PPS 557	Wood Anatomy and Structure	2 (1+1)
PPS 558	Physical Properties of Woods	2 (2+0)
PPS 559	Chemical Structure of Woods	2 (2+0)

- Program's Study Plan:**

First Level:

#	Course Code	Name	No. of Study Units
1	PPS 601	Multivariate Analysis	3 (2+1)
2	PPS 610	Range and Forest Eco-regions in Kingdom of Saudi Arabia	3 (2+1)
3	PPS 611	Advanced Topics in Range Science and Forestry	2 (2+0)
Total			8

Second Level:

#	Course Code	Name	No. of Study Units
1	PPS 603	Advanced Issues in Agriculture Biotechnology	2 (2+0)
2	PPS---/---	Elective Courses from Range Science or Forestry tracks by the approval of the student supervisory committee	6
Total			8

Third Level:

#	Course Code	Name	No. of Study Units
1	PPS 695	Discussion	2
2	PPS---/---	Elective Courses from Range Science or Forestry tracks by the approval of the student supervisory committee	6
3	PPS 700	Dissertation	-
Total			8

Fourth Level:

#	Course Code	Name	No. of Study Units
1	PPS---/---	Elective Courses from Range Science or Forestry tracks by the approval of the student supervisory committee	6
2	PPS 700	Dissertation	-
Total			6

Fifth and Subsequent Levels:

#	Course Code	Name	No. of Study Units
1	PPS 700	Dissertation	-
Total			-