

Kingdom Of Saudi Arabia King Saud University College Of Science Department of Botany & Microbiology

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Handbook of Botany Programs



2024

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Welcome to the Handbook of Botany Program

This handbook supports the university's strategic efforts toward achieving global leadership in education and research. It provides a comprehensive overview of plant biology's scientific and research developments. This handbook highlights our research, teaching, academic programs, and innovation, reflecting the department's commitment to advancing sciences while plant promoting and global collaboration. excellence This handbook offers a concise, user-friendly overview of the department's academic programs, including bachelor's, master's, and doctoral study plans. It is designed to serve as a valuable resource for faculty, students, and researchers within and outside the department. It provides essential information on the curriculum and opportunities available in this program. It also includes information on the specializations of faculty members and their assistants, along with their websites and contact details, making it easy to connect with them for academic and research inquiries.

The handbook also provides information about the department's laboratories and their capabilities in education and scientific research, as well as some of the university's units located within the department, representing an image of the department's activity at the university.

We are committed to continually updating this guidebook to enhance its usefulness and relevance.

Head of the Department

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Contact the Department

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College of Scien	ce Female students' campus College of Science				

About the Department

The Department was founded in 1378 AH (1958 CE) with the establishment of the College of Science, making it the oldest in the Kingdom dedicated to plant sciences. It has since been pivotal in advancing research and education in plant sciences, contributing significantly to the understanding and development of plant biology worldwide, especially in the Gulf regions. The Females' Branch was started in the academic year 1403/1404 H. In 1407 AH (1978), a Microbiology specialization was introduced alongside the Botany specialization. This led to the department's renaming in 1410 AH to the 'Department of Botany and Microbiology,' enabling it to confer bachelor's degrees in both Botany and Microbiology and a dual degree in Botany and Microbiology. Since 1401 H (1981), the Department has offered graduate studies to confer a master's degree in Botany. In 1417 (1997), the College Council, the College of Graduate Studies, and the University Council approved plans to offer two doctoral degrees in Botany and Microbiology for both male and female students. The registration started in the second semester of the academic year 1417/1418 H (1997/1998 G). In addition, the Department has begun, in collaboration with the Department of Zoology and the College of Food and Agricultural Sciences (formerly College of Agriculture), conferring a master's degree in biodiversity. The Department of Botany and Microbiology is located in the northwestern part of Building No. 5 of the College of Science. "It includes over 20 teaching laboratories, 28 specialized research laboratories, and a central laboratory equipped with a wide range of scientific instruments. The Botany program features a herbarium with over 4,000 specimens carefully preserved to maintain their natural appearance. This herbarium is regarded as an essential reference to the plants of the Arabian Peninsula and serves the practical teaching and research at King Saud University. In addition to the Herbarium, a Botanical Garden contains many wild plants in different habitats.

The Department includes the Females' Branch in the University Studies Centre for Girls, which offers Bachelor's, Master's, and Doctoral degrees. There are more than 55 faculty members (males and females), lecturers, teaching assistants, assistant researchers, and technicians. In the second semester last year, the number of students in the Department of Botany and Microbiology was 134 male students and 277 female students. The Department sends a number of its graduates abroad to obtain higher qualifications in different disciplines to the Department's plans. The Department has a Service Unit (the Central Laboratory for Research) containing the latest technical equipment and an integrated unit for microscopic preparations to assist in the research of faculty members and graduate students.

About the Botany Programs

The Botany program pioneers education and research in Plant Sciences, aligning with Saudi Arabia's Vision 2030 to drive sustainable development and innovation in agriculture and the environment. It strives to maintain high academic standards and offers comprehensive educational opportunities to Saudi nationals and international students interested in different disciplines of plant sciences.

The program aims to equip students for diverse sectors, including general education within the Ministry of Education, higher education institutions, the Ministry of Health, the Ministry of Environment, Water, and Agriculture, the National Center for Environmental Compliance Control, the Saudi Standards, Metrology and Quality Organization, the General Authority of Meteorology and Environmental Protection, the Saudi Wildlife Authority, and various private organizations. We are passionate about empowering individuals to play a pivotal role in national development by offering unparalleled education and training.

Our commitment to ongoing scientific research allows us to create practical solutions and provide specialized professional advice to institutions focused on services, productivity, and development processes. This support helps these organizations achieve the development goals outlined in Saudi Arabia's 2030 strategic plan. Additionally, our department is dedicated to fostering intellectual and cultural awareness within the community and promoting efforts for environmental conservation.

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The Study System at the College of Science

Teaching at the College of Science follows this scheme: 1. The school year mainly consists of two regular semesters and a summer semester, if available.

2. Academic progress is measured by levels, with a minimum of eight levels required for graduation, as outlined in the approved Study Plan.

3. The duration of the level is an entire semester (not less than 15 weeks), and this period does not include the periods of registration and final exams.

4. The summer semester lasts at least eight weeks, during which time the teaching time allocated for each course is doubled.

5. At each academic level, several courses (subjects) are taught according to the program of each specialty in the different departments.

6. Students have to study 136 class units (credit hours) to obtain a bachelor's degree as follows:

A. The student studies 31 credit hours during the Preparatory Year (two semesters in one academic year).

B. The student studies 97 credit hours (optional + compulsory) in the Program of Specialization in the various College departments throughout the six semesters following the Preparatory Year (beginning with the third semester).

C. University Requirements: During the study period at the College, the student selects 8 credit hours from 22 optional credit hours to fulfill the university's requirements.

7. The student chooses the specialty department before the end of the Preparatory Year based on the conditions set by each department.

• 1.The New Academic System (e-Register)

<u>Registration</u> is the cornerstone of the academic system, the center of the educational process, and the first step to starting university life. The new Academic System (e-Register) offers new students the following opportunities: 1. To create an e-mail through the site of the Deanship of Electronic Transactions and Communications:

http://www.ksu.edu.sa/sites/KSUArabic/Deanships/Computer/Pages/

2. To access the academic system, use the link http://edugate.ksu.edu.sa and enter a username and password.

3. **Online Registration** (including registration, adding, and dropping): Students can complete their registration from any location during the periods of registration and dropping plus an additional period specified in the academic calendar; thus, without having to visit the College or the Department, the student can perform the following:

- A. **Registration:** Registration of courses and deciding the required credit hours.
- B. Adding and dropping: The student may drop and add courses during the first week of teaching if the study load does not exceed or fall below the allowed course load.
- 4. To view the college's course schedule and the available/closed groups.
- 5. To view the study schedule and print it.
- 6. To view the Academic Record and print a copy (an unofficial copy).
- 7. To view the results of the final exams as soon as they are put online.
- 8. To view the Study Plan, including the courses passed by the student and the ones remaining to be studied.
- 9. To know about the penalties imposed upon the student.
- 10. To view the financial rewards.
- 11. To make suggestions and submit complaints.
- 12. To write the academic performance evaluation of faculty members.
- 13. To exchange electronic messages and change passwords.
 - * If you encounter any problems while registering, please consult the College Registration Office (room 1 a 7—Building 4).
- 2. Rules and Mechanisms for Registration of Courses

• The Course is a module designed to meet the needs of the specified level in the approved Study Plan in each specialty (Program). The Course has a number, a code, a title, and a description that vary by department (see the Department's Manual Guide).

• **The course** is divided into theoretical lectures and practical lessons (study units), taught weekly at the academic level.

• The Credit Hour is a weekly theoretical lecture that is not less than fifty minutes or a practical lesson that is not less than one hundred minutes.

• The registration of the courses for all students is done automatically through the website: <u>http://edugate.ksu.edu.sa</u>

• The academic levels vary in the number of units of study required, from 12 to 20 units for each level.

• Courses are registered automatically at the beginning of the following semester for the student's convenience. Then, the student can modify the course schedules by adding or dropping classes.

• The following table shows the student's study load corresponding to the cumulative average:

GPA	2	2.5	3	3.5	4	4.5	5
Hours allowed for registration	14	15	16	17	18	19	20

• The student performs the Processes of dropping and adding electronically in the first week of the semester by accessing the gate of the academic system of the University Deanship of Admission and Registration (http://edugate.ksu.edu.sa).

• No student can register for a course without passing its pre-requisite course.

• Students who successfully pass all their courses without failures are gradually registered in the next level of courses, starting from the lower levels, by the approved study plans.

• Students who fail some courses are registered in classes that ensure they meet the minimum study load for each semester, considering the following points:

- No conflict in the course study schedule.

- Satisfying the previous requirements of the course or courses to be registered.

Calculating the Average and Cumulative GPA:

The Average and cumulative GPA are calculated every semester for the student automatically by the system. To know how to calculate the averages, you should follow the following steps:

Calculating the Semester Average:

The GPA is calculated considering the following points:

- 1. Knowing the number of hours of the courses.
- 2. knowing the mark obtained in each course.
- 3. Knowing the corresponding grade of each mark.
- 4. Knowing the value of each grade.
- 5. Knowing the points = number of hours of the course \times value of the grade.
- 6. Determining the total points obtained in all courses of the semester.
- 7. Determining the total number of hours registered in the semester.
- 8. The average is calculated every semester according to the following equation:

	Total points (item 6)
GPA =	Number of hours registered in the semester (item 7)

The following table shows the percentage of marks, grade and value obtained by the student in each course, which is used to calculate the points:

Mark	Grade	Letter of	Value of
		Grade	Grade
From 95-100	Excellent +	A+	5.00
From 90 to less than 95	Excellent	А	4.75
From 85 to less than 90	Very Good+	B+	4.50
From 80 to less than 85	Very Good	В	4.00
From 75 to less than 80	Good +	C+	3.50
From 70 to less than 75	Good	С	3.00
From 65 to less than 70	Pass +	D+	2.5
From 60 to less than 65	Pass	D	2.00
Less than 60	Failure	Е	1.00
Absence from lectures	Debarred	Н	1.00
(25% or more)			

Calculating the Average Cumulative:

The GPA semester average is calculated as follows:

- 1) The total of points (for all semesters that have been studied).
- 2) The total of credit hours (for all semesters that have been studied).
- 3) The cumulative average is calculated according to the following equation:

	Grand total of points
GPA =	Grand total of credit hours

Here is an example of how to calculate the grades above:

Course	Credit	Mark	Grade	Grade	Points	
	Hours			Value		
Phys 101	4	67	D+	2.5	$4 \times 2.5 = 10$	
Chem101	4	73	С	3	$4 \times 3 = 12$	
Eng 121	3	77	C+	3.5	$3 \times 3.5 = 10.5$	
Arab 101	2	81	В	4	$2 \times 4 = 8$	
	13				40.5	
GPA = Total points \div No. of hours registered in semester = 40.5 \div 13 = 3.12						

Calculating the grade of the first semester:

Calculating the grade for the second semester:

Course	Credit	Mark	Grade	Grade	Points
	Hours			Value	
Math 101	3	61	D	2	$3 \times 2 = 6$
Stat 101	3	73	С	3	$3 \times 3 = 9$
Computer	3	80	В	4	$3 \times 4 = 12$
Science 206					
Arab 103	3	88	B+	4.5	$3 \times 4.5 = 13.5$
Islam 101	2	92	А	4.75	$2 \times 4.75 = 9.5$
Eng 122	3	97	A+	5	$3 \times 5 = 15$
	17				65
$\mathbf{GPA} = \mathbf{T}$	otal points ÷	No. of hours	registered in	semester = 6	$5 \div 17 = 3.82$

Calculating the average cumulative:

GPA = Total points \div Total hours of the semester = $105.5 \div 30 = 3.52$

Dropping and adding of a course:

• The process of adding and dropping courses is conducted through the portal (<u>http://edugate.ksu.edu.sa</u>) only during the first week of the semester. However, the total number of registered credit hours must be at least 12

- A student may drop only one course for an acceptable reason, as approved by the Dean of the College. This procedure should occur at least five weeks before the final exams begin. The student has the right to apply for such a procedure in a maximum of four courses during the study period at the college.
 - •

Attendance, postponing, and dropping out of College:

- The student must attend at least 75% of lectures and practical classes regularly.
- If a student has an absence rate of 25% or more in any course, they will be denied access to the final exam for that course, resulting in a grade of F (Fail).
- Students may apply for a postponement of their studies before the semester begins, provided they have a valid excuse accepted by the College Board. The postponement should not exceed two consecutive semesters or three intermittent semesters throughout their time at the College.
- The University Council may exempt the applicant from the previous provision if necessary.
- If a student drops out of college for one semester without requesting to postpone his registration, the university has the right to dismiss his registration. The University Council has the right to do this for a lesser period.
- A student who is enrolled as a visiting student at another university is not considered to have dropped out of the College.
 - Visiting Student
- A visiting student takes courses at another university or a branch of their university without transferring their enrollment. The courses they studied are accredited according to the following regulations:
- The student must have a transcript (including a grade point average) for at least two semesters at their college before applying as a visiting student.
- The student must obtain prior approval from their college to study as a visiting student, specifying the courses they intend to study. The college reserves the right to set a minimum grade requirement for the course to be considered for credit transfer. The student should obtain an official letter from the Deanship of Admission and Registration directing students to study as a visiting student.
- The student must enroll in a recognized college or university.

- The courses under consideration by the student to be studied outside the University must be equivalent in their description to the University courses, and their course units should be no less than the units of any of the courses contained in the graduation requirements.
- The maximum number of total units of study that can be calculated from outside the University is 20% of the total units required for graduation at King Saud University.
- Courses taken by the visiting student are not included in the cumulative average, but they are recorded on the academic transcript.
- Students must submit their academic results to the Deanship of Admission and Registration within the first two weeks of the semester following their study as visiting students. If they are not reported within that period, the student is considered to have dropped out of college during those semesters.
- •

Dismissal from the University:

- \checkmark The student is dismissed from the University in the following cases:
- ✓ If the student receives three consecutive warnings due to a cumulative GPA below the minimum threshold, 2.
- ✓ Based on a recommendation from the College Council, the University Council may give the student a fourth opportunity to improve their cumulative GPA by studying the available courses.
- ✓ Due to academic warnings, the University Council may give dismissed students an opportunity to continue their studies for a maximum of two additional semesters.
- ✓ If the student does not fulfill his graduation requirements at the college for up to half of the period prescribed for graduation in addition to the duration of the program,
- ✓ The University Council may grant the student an exceptional opportunity to meet the graduation requirements within a period not exceeding twice the original time allotted for graduation.
- ✓ The University Council may allow dismissed students to attend twice the duration of the program due to the exhaustion of failure times. This extension should not exceed a maximum of two semesters.

Examinations and Grades:

- 1. Based on a recommendation from the Department Council, the College Council sets a percentage for the student's semester work, ranging from 40% to 60% of the course's final grade.
- **2.** The mark of the course's semester work is calculated by one of the following two methods:
 - Oral, practical tests, research, or other forms of classroom activity, or from all the above or some of them, in addition to at least one written exam.
 - Two written exams, at least.
- **3.** Upon the course teacher's recommendation, the Department Council may permit the student to complete the course requirements the following semester, granting an 'I' (incomplete) grade on their academic record. Only the grades achieved by the student are included in the GPA or cumulative after the completion of the requirements of that course.
- 4. If one semester passes without changing the incomplete grade (I), the student is given an F, calculated in the GPA and cumulative.
- 5. The grades obtained by the student in each course are calculated according to the schedule mentioned above.
 - •

Restrictions of the Final Examinations:

- 1. The student does not appear in examinations for more than two courses in one day.
- The student is not allowed to enter the final exam half an hour after its beginning and is not permitted to leave the exam room half an hour after its beginning.
- 2. Based on a recommendation from the relevant Department Council, the College Council specifies that the final written exam should last less than one hour and not more than three hours.
- **3.** Students who cheat during exams, instigate cheating, or violate examination procedures and instructions are subject to penalties per the Student Discipline Regulations issued by the University Council.

- 4. In cases of necessity, the College Council, in charge of teaching a course, has the right to approve the re-marking of the answer sheets in a period not later than the beginning of the following semester by the following rules:
- A student may request re-evaluation of the answer sheets for only one course per semester.
- The student who wishes to re-evaluate the answer sheets may apply for re-marking to the department that teaches this course not later than one month after taking the final exam.
- A student who has already applied for re-marking and proved the invalidity of his application should never apply for re-marking his answer sheets in any exam in the future.

Transferring:

- 1) Transferring from one college to another within the University:
- Students may transfer from one college to another with the approval of the relevant deans, provided they meet the conditions established by the college council.
- The student's college academic record must show all courses previously studied, including grades, semester averages, and cumulative averages throughout the period of study at the college from which he is transferred.

2) Transferring from one major to another within the College:

- The student may, after the approval of the Dean, transfer to another specialty within the College according to the guidelines established by the College Council.
- The student's academic record from their current college must reflect all previously completed courses, including grades, semester averages, and cumulative averages, before transferring.

Graduation:

The student graduates after successfully completing the graduation requirements under the study plan, provided that his cumulative average is at least 2 out of 5 (Pass).

Faculty Staff of Botany Programs

First – Male section

S	Name	Job title	Specialization	E-mail
1	Ahmed Hamad Al Farhan	Prof	Plant classification	alfarhan@ksu.edu.sa
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Established Committees for Botany Programs Quality Assurance



The department's higher committee supervises the department's work. It is headed by the department head and accompanied by the academic accreditation committee rapporteurs. The head of the higher committee and the accreditation rapporteurs manage the department's affairs to achieve its goals and improve its outcomes.

Botany Programs

The program offers three academic degrees, each with its vision, mission and objectives:

- **Vision** Upgrade the academic and research level to keep pace with scientific progress and community requirements.
- **Mission** Providing distinguished education and advanced scientific research to meet the needs of the community through an innovative and stimulating academic and administrative environment, with the optimal use of technology and local and international partnership in the field of Botany.
- **Objectives** To achieve innovative scientific research in the fields of Botany and its applications.

To provide distinguished education in the field of Botany and its applications

To provide community services and support communication channels in the community and labor market to raise the quality of life.

To implement and improve the quality management system's procedures.

To develop skills of faculty and staff in the Botany program to be more professional by promoting knowledge, skills, and values.

To invest the department's resources in increasing selfrevenue to support the department's activities and scientific research.

1. Botany B.Sc. Program

Admission Requirements for the B. Sc. Program:

Under the terms of admission to the College of Science, the Botany & Microbiology Department stipulates the following conditions:

- 1. The student must hold a Secondary School Certificate (Natural Sciences Section).
- 2. The average, scored by the student in the High School Examination, should be no less than 75% (weighted percentage).
- 3. The student's cumulative average must not to be less than 2.5 out of 5, when transferring to the Department.
- 4. A full-time registration is required.

The Study Plan of the bachelor's degree (B. Sc. Botany)

	First						
code	course name	Н	G	L	Η	requisite	Yrl
ENGS 100	English Language	6				-	-
ARAB 100	Writing Skills (O)	2				-	-
CT 101	IT Skills	3				-	-
ENT 101	Entrepreneurship	1				-	-
MATH 101	Differential Calculus	3				-	-
Total		15					

Group Type: Compulsory 1

	Second							
code	course name	Η	G	L	Η	requisite	Yrl	
STAT 101	Introduction to Probability and Statistics	3				-	-	
EPH 101	Fitness and Health Education	1				_	_	
CHEM1 01	General Chemistry (1)	4				_	-	
CI 101	University skills	3				-	-	
ENGS 110	English	6				ENGS 100 - / P	-	
Total		17						

	Third							
code	course name	Η	G	L	Η	requisite	Yrl	
BCH 101	GENERAL BIOCHEMISTRY	4				-	-	
BOT 102	Botany	3				-	-	
ZOOL1 03	Principles of General Zoology	3				-	-	
MBI 140	General Microbiology	3				-	-	
STAT14 5	BIOSTATISTICS	2				-	-	
Total		15						

	Fourth							
code	course name	Η	G	L	Η	requisite	Yrl	
BOT 213	Plant Microtechnique	2				BOT 102 - / P	-	
BOT 222	Principals of Flowering Plants Taxonomy	3				BOT 102 - / P	-	
BOT 241	Plant Ecological Factors	3				BOT 102 - / P	-	
BOT 251	Cell Biology & Cytogenetics	3				BOT 102 - / P	-	
BOT 272	Plant Physiology	3				BOT 102 - / P	-	
Total		14	1					

	Fift	h							
code	course name	Η	G	L	Η	requisite	Yrl		
BOT 211	Plant Anatomy	3				BOT 102 - / P	-		
CHEM2 53	Analytical Chemistry for	2	2	n				_	_
CHEWIZ 55	Non-Major	2				-	-		
BOT 254	Genetics	3				BOT 251 - / P	-		
BOT 341	Ecosystem	1				BOT 241 - / P	-		
BOT 345	Flora of Saudi Arabia	2				BOT 241 - / P	-		
BOT 349	Econhygiology	2				BOT 241 - / P			
BU1 349	Ecophysiology	2				BOT 272 - / P	-		
Total			13						

	Sixth						
code	course name	Н	G	L	Η	requisite	Yrl
BOT 342	Phytosociology	2				BOT 345 - / P	-
BOT 346	Pollution & Environmental Protection	2				-	-

BOT 359	Population Genetics	2			BOT 254 - / P	-
BOT 373	Plant Growth & its Regulators	2			BOT 272 - / P	-
BOT 398	Research Project (1)	2			-	-
Total			10			

Seventh							
code	course name	Η	G	L	Η	requisite	Yrl
BOT 492	Ecological Field Training	5			75	-	-
Total			5				

	Eig	hth					
code	course name	Η	G	L	Н	requisite	Yrl
GEO 303	Principles of Remote Sensing	3				-	-
MBI 345	Microbial Interaction	2				MBI 140 - / P	-
BOT 384	Phycology	3				BOT 102 - / P	-
BOT 443	Ecological Methods	2				BOT 241 - / P	-
BOT 499	Research Project (2)	3			90	-	-
Total			13				

	Ninth							
code	course name	Η	G	L	Η	requisite	Yrl	
BOT 441	Economic Botany	2				-	-	
BOT 445	Desert Ecology & its Resources	2				BOT 345 - / P	-	
BOT 472	Plant Tissue Culture	2				BOT 251 - / P BOT 272 - / P	-	
BOT 473	Plant Chemistry	2				BOT 272 - / P	-	
BOT 495	Plant Molecular Biology	3				-	-	
Total		1	1					

Group Type: Elective 1 (8)

	University requirements							
Code	Course name	Н	G	L	Η	requisite	Yrl	
IC 100	Studies in the prophet biography	2				IC 101 - / NC	-	
						IC 102 - / NC		
						IC 103 - / NC		
						IC 104 - / NC		
						IC 105 - / NC		
						IC 106 - / NC		

		- T - T	
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
QURN	Quran Kareem	2	IC 100 - / NC -
100			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
IC 101	Principles of Islamic Culture	2	IC 100 - / NC -
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 102	Family in Islam	2	IC 100 - / NC -
			IC 101 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 103	Economic System in Islam	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC

			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 104	Islamic Political System	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 105	Human Rights	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 106	Medical Jurisprudence	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 107 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 107	Professional Ethics	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC

			IC 105 - / NC
			IC 106 - / NC
			IC 108 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 108	Current Issues	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 109 - / NC
			QURN 100 - /
			NC
IC 109	Development Role of Women	2	IC 100 - / NC -
			IC 101 - / NC
			IC 102 - / NC
			IC 103 - / NC
			IC 104 - / NC
			IC 105 - / NC
			IC 106 - / NC
			IC 107 - / NC
			IC 108 - / NC
			QURN 100 - /
			NC
Total		22	

Group Type: Elective 1 (9)

	Electi	ve 1					
code	course name	Η	G	L	Η	requisite	Yrl
MBI 240	Laboratory Skill	2				MBI 140 - / P	-
MBI 250	General Virology	3				MBI 140 - / P	-
MBI 260	General Bacteriology	3				MBI 140 - / P	-
MBI 270	General Mycology	3				MBI 140 - / P	-
MBI 280	Biology of Microalgae	2				MBI 140 - / P	-
ZOOL3 05	Animal Modern Taxonomy	2				ZOOL103 - / P	-
ZOOL3 73	Terrestrial Ecology	2				ZOOL103 - / P	-
ZOOL3 74	Aquatic Ecology	2				ZOOL103 - / P	-
Total			19				

	Electi	ive 2					
code	course name	Η	G	L	Н	requisite	Yrl
BOT 263	Archegoniate	2				BOT 102 - / P	-
BOT 312	Plant Morphogenesis	2				BOT 102 - / P	-
BOT 322	Experimental Taxonomy	2				BOT 102 - / P	-
BOT 347	Plant Geography	2				BOT 102 - / P	-
BOT 379	Metabolism & Transport in Plants	2				BOT 102 - / P	-
BOT 380	Plant Water & Soil Relations	2				BOT 102 - / P	-
BOT 447	Arid Regions Development	2				BOT 102 - / P	-
BOT 449	Natural Resources & Management	2				BOT 102 - / P	-
BOT 456	Gene Conservation	2				BOT 102 - / P	-
BOT 457	Genetic Engineering	2				BOT 102 - / P	-
BOT 458	Ecological Genetics	2				BOT 102 - / P	-
BOT 476	Date Palm Biology	2				BOT 102 - / P	-
BOT 487	Phytoplankton's	2				BOT 102 - / P	-
Total		2	26				

Group Type: Elective 2 (6)

* **P:** Pre-requisite **C:** Co- Co-requisite **L:** Pre-course Level **G:** GPA level **H:** Requisite HRS **MC:** Mandatory Co-requisite **NC:** None Co-requisite

2. Botany M.Sc. Program

- Vision Upgrading teaching and research to keep pace with scientific progress and the requirements of the society in the fields of botany and its applications
- **Mission** Qualifying the M.Sc. students in Botany to substantial educational and research standards through an inspirational academic environment to meet the needs of KSA in all related domains.
- Provide high-quality in-depth education and advanced scientific research in the fields of plant sciences and its applications.
 - Providing an innovative academic and administrative environment capable of attracting the best graduates, faculty and researchers.
 - To promote relationships with national and international academic institutions and research centers in the fields of plant sciences
 - Optimal utilization of modern technology in education and scientific research in the research in the fields of plant sciences

Admission Requirements for the M. Sc. Program:

1- The admission requirements are stipulated in the Unified Graduate Studies Statutes for Saudi universities.

2- The candidate should hold a bachelor's degree (B.Sc.) in Botany or Microbiology from King Saud University or an equivalent degree, with a grade not less than C (good).

3- The candidate must pass a test and a personal interview.

4- The candidate must have the approval of the employer.

5- The admission is for full-time registration.

6 – The candidate must pass any necessary supplementary courses by the Department's Council.

	First						
code	course name	Η	G	L	Η	Requisite	Yrl
BOT 512	PLANT SURFACES	2				-	-
BOT 521	ADVANCED ANGIOSPERM	2					
DOT 521	TAXONOMY	2				-	-
BOT 541	ADVANCED ECOLOGY	2				-	-
BOT 551	ADVANCED GENETICS	2				-	-
BOT 571	BIOSYNTHESIS	2				-	-
	Total				1	0	

The Study Plan of the master's degree (M.Sc. Botany)

	Secon	d					
code	course name	Η	G	L	Η	requisite	Yrl
BOT 514	APPLIED PLANT	2					
BO1 314	ANATOMY	2				-	-
BOT 523	FIELD SYSTEMATICS	2				-	-
	DESERTIFICATION						
BOT 543	&CONSERVATION OF	2				-	-
	NATURAL						
BOT 572	PLANT MINERAL	3					
BO1 372	NUTRITION	3				-	-
BOT 591	SPECIAL TOPICS	1				-	-
	Total				1()	

	Third								
code	course name	Н	G	L	Η	requisite	Yrl		
BOT 553	ADVANCED CYTOGENETICS	3				-	-		
BOT 592	SEMINAR	1				-	-		
BOT 596	Thesis Proposal Preparation	1			12	-	-		
	Total				5				

Fourth								
code	course name	Η	G	L	Η	requisite	Yrl	
BOT 600	RESEARCH	1			24	-	-	
	Total				1			

* P: Pre-requisite C: Co- Co-requisite L: Pre-course Level G: GPA level H: Requisite HRS MC: Mandatory Co-requisite NC: None Co-requisite

3. Botany Ph.D. Program

The Department directs the student to study 9 units selected from the courses mentioned below by his specialization. The specializations are Plant Physiology, Ecology, and Genetics:

- Mission Promote high quality education and research to build scientists and research scholars with advance knowledge to improve society through service and collaboration
- **Objectives** Prepare promising graduate students with outstanding scholarly aptitude and research skills for the betterment of society.

Implementing modern advanced techniques in research and education for effective outcomes.

Maximize patents and scientific publications with original interdisciplinary research work to be published in recognized impact factor journals at both national and international levels.

Collaborating with eminent scientific and reputed institutes at national and international levels to explore interdisciplinary research areas to benefit the Kingdom Plant resources.

Providing quality education and advanced research in the field of botany to the PhD students to uplift the economy of the kingdom through their services

Admission Requirements for the Ph. D. Degree:

- 1. The Unified Graduate Studies Regulations for Saudi universities stipulate the admission requirements.
- **2.** The candidate should hold a master's degree in Botany or Microbiology from King Saud University or equivalent.
- **3.** The candidate must pass a test and have a personal interview as the department prescribes.
- 4. The candidate must have obtained at least a score of 450 on the Test of English as Foreign Language (TOEFL) or a score of not less than 4.5 in the International English Language Testing System (IELTS) and pass the Academic Reading and Writing Modules.

- 5. The candidate must have the approval of the employer.
- 6. Admission is for full-time registration.
- 7. The candidate must pass any necessary supplementary courses by the Department's Council.

The Study Plan of the Ph.D. Degree (Ph.D. BOTANY)

Group Type: Compulsory 1

	First						
code	course name	Η	G	L	Н	requisite	Yrl
BOT 611	ADVANCED PLANT	2					
BOTOIT	ANATOMY	2				-	-
BOT 641	BASIC CHARACTERISTICS	2				_	
BO1 041	OF HABITATS & PLANTS	2				-	-
BOT 651	GENE REGULATION &	2				_	
BO1 051	DEVELOPMENT PATTERNS	2				-	-
BOT 671	ADVANCED STRESS	2				_	
B010/1	PHYSIOLOGY	2				-	-
BOT 691	SEMINAR	2				-	-
	Total				9		

Second							
code	course name	Н	G	L	Η	requisite	Yrl
BOT 699	Thesis Proposal Preparation	1			9	-	-
	Total				1		

Third							
code	course name	Η	G	L	Η	requisite	Yrl
COM 700	Comprehensive Exam	0	3.7		18	-	-
	Total				0		

	Fourth								
code	course name	Н	G	LH	requisite	Yrl			
BOT 700	DISSERTATION	1			BOT 699 - / P	-			
	Total				1				

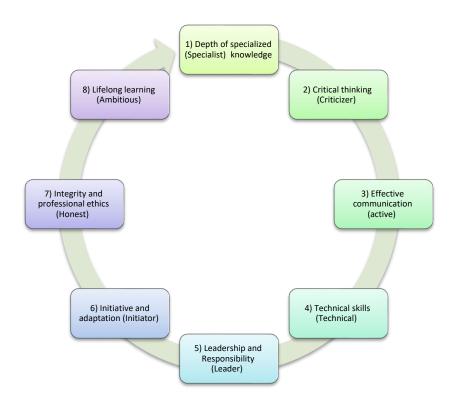
Group Type: Elective 1 (9)

	Electiv	e					
code	course name	Η	G	L	Η	requisite	Yrl

	ADVANCED				
BOT 621	EXPERIMENTAL	2		-	-
	TAXONOMY				
BOT 642	SEED ECOLOGY	2		-	-
BOT 652	GENETIC ENGINEERING	2		-	-
	ADVANCED STUDY IN				
BOT 672	PLANT GROWTH	2		-	-
	REGULATOR				
BOT 673	PLANT CELL METABOLISM	2		-	-
BOT 674	SEED PHYSIOLOGY	2		-	-
BOT		2			
692	SPECIAL TOPICS	3		-	-
	Total			15	

P: Pre-requisite **C:** Co- Co-requisite **L:** Pre-course Level **G:** GPA level **H:** Requisite HRS **MC:** Mandatory Co-requisite **NC:** None Co-requisite

Graduate attributes



Job Opportunities

Graduates of the Department of Botany Program can work in many different ministries and sectors, such as:

- Ministry of Education (University Education): Teaching Assistant Laboratory Technician Research Assistant.
- Ministry of Education (General Education): Teacher Laboratory Expert.
- Ministry of Environment, Water and Agriculture: Research laboratories, nature reserves.
- General Authority of Meteorology and Environmental Protection.
- Saudi Wildlife Authority.
- Saudi Standards, Metrology, and Quality Organization.
- National Center for Environmental Compliance Control.
- National Center for Wildlife Development.
- King Abdulaziz City for Science and Technology: Supervision Research Technicians.

Facilities and equipment

LABORATORIES

The Department of Botany and Microbiology houses more than 20 teaching laboratories, 28 specialized research laboratories equipped with modern devices, and several classrooms for lectures.



THE CENTRAL LABORATORY:

The Department's central laboratory includes a comprehensive set of equipment that can be effectively utilized by all researchers in the Department and others. A team of specialists operates this equipment, conducting some tests for research projects for undergraduate students, postgraduates, faculty members, and the community. This Laboratory is supervised by a specialized committee.

TISSUE CULTURE AND VIRUSES ISOLATION UNIT







Main Objectives of the Central laboratory:

- 1 To create separate units for the development of biotechnology.
- 2 To develop the level of scientific research of the postgraduate students.
- 3 To train the students to meet the demands of the labor market.
- 4 To transfer modern biotechnology.

Services provided by the Central laboratory:

- 1 To give the principal equipment to support research in the Department.
- 2 To Provide a venue for various tests.
- 3 To offer training services to students on the equipment.

4-To function as a means of communication with most of the local and international centers.

The Microscopic Preparations Unit:



The Microscopic Preparations Unit provides services to undergraduate students through the preparation of slides taught in some courses. It also extends its services to postgraduate students by preparing samples for their studies. Furthermore, the Unit provides services to faculty members, who conduct microscopic preparations for their own research.

Student Training Unit:

The Department of Botany and Microbiology prioritizes training as an essential education component. As the College of Science mandates, all students must undergo summer training as a pre-requisite for obtaining the B.Sc. degree in any specialization. This period extends over two to three months during the summer vacation. The Training Unit (TU) helps students find suitable training opportunities to avoid conflict between summer training and course work.

The summer training commences when a student has completed 110 credit hours, grasped basic scientific fundamentals, and acquired a good background in the English language. At the end of the training period, each student submits a training report for evaluation by the respective academic department.

TU Objectives

- To expose students to the working environment
- To enhance and supplement the knowledge and skills of students
- To develop students regarding ability, competence, and interpersonal relationships.
- To expose and familiarize the students with rules and regulations, including safety in the working environment.
- To develop the spirit of teamwork among students and other working group members.

The Herbarium:





The Herbarium was established in 1385 H, and was registered in the records of lawns World Service in 1409 H. It includes nearly four thousand dried plant samples from the Kingdom identified by their scientific names, tribes, the places from where they were collected, and the date of collection. About (5000) types of

flowering plants have been collected till now. The Herbarium, together with the Book of Flora, which faculty members authored, represents an important reference for the Kingdom's plants.

The Botanical Garden:

The Botanical Garden was established in 1413 H on the University Campus. It contains more than 100 species of wild plants, farm ponds, greenhouses, a water basin, and a seed warehouse.



In the Department of Botany and Microbiology, the Botanical Garden aims to identify various types of the Kingdom's plants: edible, medical, pastoral, aromatic, and toxic. The Botanical Garden also aims to preserve desert plants threatened with extinction and allow researchers and specialists to obtain plant samples and different seeds for various scientific research throughout the year. Some people may not know that wild plants can be used as accessories to beautify gardens and public parks in view of the advantages of those plants, given their multiple forms, beautiful flowers, and pleasant scent. Furthermore, these plants are suited to the environmental conditions of the Kingdom, which other plants cannot tolerate.

Scientific societies

Saudi Biological Society





The Saudi biological Society was established in 1395 H (1975) and is considered to be the first scientific society to be established in Saudi Arabia. It has the Honorary Presidency of His Royal Highness Prince Sultan bin Abdul Aziz, Crown Prince and Deputy Prime Minister and Minister of Defense and Aviation and General Inspector, and it is located in King Saud University. The University oversees the activities of the Society and supports it financially and morally to achieve its mission. The Society is linked directly to His Excellency the Rector, and membership of the Society is open to scientists and researchers in the biological sciences, especially Saudi nationals. Furthermore, the Society grants honorary membership to those who have excelled in the production of scientific research in life sciences. The Society organizes scientific seminars and conferences attended by specialists from all over the world in different areas of biological Sciences. One of the main objectives of the society is to encourage scientific research and the dissemination of scientific awareness in the areas of biological Sciences.

Board of Directors:

President of the Society	Prof. Ibrahim Bin Abdul Wahid Arif.
Vice-President of the Society	Prof. Samira Omar Saeed Pafeel
Chamberlain	Prof. Ali Bin Hassan Abdel Rahman Bahkali

Society Mission:

Promoting and disseminating all matters related to biological sciences and consolidating closer collaboration among science workers at local, Islamic, and international levels.

Society Goals:

1) To promote scientific research in biological sciences in general and fields related to the local environment.

2) Dissemination of scientific awareness in biological sciences through a simplified version of scientific manuals and periodicals in a manner comprehensible to the ordinary citizen.

3) To inform the outside world about the scientific research taking place within the scientific institutions in the Kingdom.

4) Providing scientific advice in the areas of its members' specializations to those who request it within the Kingdom.

5) To raise awareness and concern for the preservation of the natural environment in the Kingdom.

6) To organize scientific seminars and conferences involving specialists from all over the world to try and find appropriate solutions to the problems of the local environment methods for its development.

7) Consolidating the relationship between workers in the field of life sciences and those interested in the biological sciences in the Kingdom and the organization of excursions and social activities for them inside and outside the Kingdom.

Services provided by the Saudi Biological Society to the public and private sectors and the community:

The Saudi Biological Society provides many services to public and private sectors, including:

- 1. Providing recommendations to public and private sectors to address local environmental and biological problems through seminars and scientific meetings held annually and attended by several specialists in the fields of biological sciences.
- 2. Providing Counseling, studies, and the preparation of research in the fields of its members' specializations to institutions of public and private sectors.
- 3. Encouraging the participation of employees of governmental and private institutions in specialized scientific meetings and discussions to achieve the desired benefit in improving work performance and development.
- 4. Presenting the results of studies, research and tests carried out by the Society's members in various scientific fields through publication in the Journal of biological Sciences issued by the Society periodically.

5. The preparation of publications and specialized studies in the following areas:

• Types of plants that are affected by some of the irrigation methods and the dissemination of some allergens compounds.

• Types of dates, distribution, and inventory of the highest nutrition quality based on its contents.

- Providing studies, research, and publications on water, soil, and air pollution.
- Types of fish and its nutritional benefits.

• Economically cultivated plants and methods of evaluation in water, soil, and air pollution.

• Providing studies and consultations in the field of desertification.

- 6. The Society has held several courses, such as:
- Detection of parasitic worms in water.
- The use of the electron microscope.
- Classification of plants and animals.
- Life studies of different levels of the community, especially in the fields of preservation of natural resources.
- 7. To identify toxic plants and animals and their dangers.
- 8. To contribute to research on the functions of plant organs and water and heat stresses.
- 9. To research tissue culture and economic plant strains' production.
- 10. Physiological studies on fruits and seeds after harvesting, storage, and manufacturing.
- 11. The study of organic and non-organic plant nutrition in opened and protected farms.
- 12. Evaluating and refereeing scientific research submitted by research centers and universities.
- 13. The study and definition of micro-organisms (algae bacteria fungi viruses).
- 14. The assessment of methods used to isolate and purify the bacteria in milk, dairy products and other foodstuffs.
- 15. Testing new antibiotics and studying its effectiveness.
- 16. The study of natural phenomena resulting from the products of bacteria such as fire.
- 17. The role of bacteria, fungi and algae in other industries.
- 18. The role of bacteria in metal degradation and petrol derivatives.

Address of the Saudi Biological Society;

College of Science, King Saud University - Tel. Box 2455, Riyadh 11451 Kingdom of Saudi Arabia

Tel: 4675838 Fax: 4679983

Research Chairs

Prince Sultan Research Chair for Environment and Wildlife:





Based on the care and emphasis placed on the local environment and its natural components by His Royal Highness Prince Sultan bin Abdul Aziz, Crown Prince, Deputy Prime Minister and Minister of Defense and Aviation and General Inspector, Honorary President of the Saudi Biological Society, a highly esteemed initiative was taken through His Royal Highness's approval, on 32 Jumada I 1428 H, June 9, 2007, of the establishment and financing of Prince Sultan Research Chair for Environment and Wildlife at King Saud University.

What are the main objectives of the Research Chair?

One the most important objectives of the Research Chair is to prepare studies and research in the preservation of the environment and wildlife, maintain close liaison and scientific cooperation between specialists in environmental science and wildlife, contribute to the education and training of qualified cadres in the areas of environment and wildlife, provide expertise and advice to government and private sectors related to the environment and the preservation of wildlife, and build lasting bridges with sound scientific institutions in the world through inviting some of the scholars regularly to participate in research programs in Saudi universities.

Missions Adopted by the Research Chair:

1) To conduct research in the fields of environment and wildlife since the chair will conduct specialized basic and applied research and studies, which can be grouped into the following research fields:

- Specialized environmental studies to identify ecological patterns and their bio-components and the extent of adaptation of these species to the environmental conditions surrounding them.
- Conducting biodiversity inventory research on species that live in the Saudi Arabian environment and ensuring that they are scientifically defined by international specialists (scientific reference).

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- Conduct genetic studies to identify the genetic fingerprints of the various species in the Kingdom since such activities are important from a scientific and practical consideration and the scientific registration of the genetic fingerprints of these species in international organizations in order to preserve the national heritage.
- Carrying out the scientific registry for scientific research and specialized studies in the field of environment and wildlife in the international records to protect the intellectual property rights of researchers and scholars in the Kingdom.

2) To support Graduate Studies, as graduate research is the primary engine of scientific research. Therefore, to achieve the objectives of the Research Chair, a number of outstanding students, Saudis, and non-Saudis, will be attracted to continue their postgraduate studies to obtain a Master's or Doctoral degree in the field of environment and wildlife. Also, the Chair will adopt the graduation projects of undergraduate students and direct them to environmental studies and local wildlife.

3) To aid in the process of technology transfer since the Chair will be a major outlet for settling several new technologies that can be used in the fields of environmental research and wildlife. Moreover, the Chair will seek the best techniques and equipment needed to study scientific and specialized research in the local environment.

4) To provide scientific advice and consultancy services given the deficiency in the number of specialists in scientific research, environmental studies and wildlife. Therefore, one of the Chair's tasks will be the provision of scientific advice and consultancy services to interested parties, whether governmental or private, for a fee which could become, with the passage of time, a good source of income for the Chair.

5) To organize courses, seminars, workshops, meetings, and public lectures for researchers and specialists in the field of environment and wildlife in order to keep pace with global changes and brief them on the significant developments in contemporary issues to acquire new specialized cognitive skills. Furthermore, such activities contribute towards building a general culture in the community to maintain the environment and natural components by shedding more light on the problems facing the local environment and its negative repercussions on the community's safety in general.

Technical Committee overseeing the Chair:

Prof. Ibrahim Bin Abdul Wahid Arif
Prof. Ali Bin Abdullah Al-Humaidan
Prof. Ahmed Bin Hamad Al-Farhan
Member

Activities that have been implemented to activate the programs of the Chair:

- The most important is the choice of a distinguished professor to serve as an Emeritus Professor of the Chair whose specialization lies in the same area of the Chair's research.
- It has been agreed with another distinguished British professor to serve as an advisor to the Chair.
- An Internet site and a booklet for the Chair were made in Arabic and English.
- A location was allocated to the Chair, and a signboard was put up.
- Currently, the required scientific equipment is being ordered.

Areas covered by the Chair and the Beneficiary segment:

In general, all members of society benefit from the Chair's programs since the environment is essential for various segments and categories. Therefore, it is vital to strengthen their knowledge and build a general culture in environmental protection and its natural components. Moreover, researchers, specialists, and interested parties in the environment and wildlife, in particular, benefit from the Chair's programs. The areas of interest to the Chair are fields of life sciences in general, particularly the areas of the local natural environment in the Kingdom, wildlife, and programs of resettlement of icons of wildlife in the Kingdom and their preservation and development.

Chair's Projects:

The Chair has several research projects, and a workshop was organized and held on Sunday, 6 Jumada I 1429 H, May 11, 2008, which hosted the most prominent specialists in this field and discussed the problems of the local environment and wildlife. Practical recommendations and solutions of appropriate implementation were presented to keep pace with global changes and to inform researchers and specialists on the major contemporary developments in the environment, as well as supporting graduate excellence in the fields of environment. A major interest is the striving towards modern technology in the fields of environmental research and wildlife to secure the best techniques and equipment needed to perform the study of scientific and specialized research in the local environment and meet the requirements of providing scientific advice and consultancy services to interested parties, whether governmental or private in the areas of environment and wildlife.

Through the Chair of Prince Sultan of the Environment and Wildlife, the Society will work to develop the potential and expertise of its members in service of scientific research projects carried out by the Chair. In addition, the Society will adopt the results of scientific research and implement these results and their recommendations, offering scientific solutions applicable to many of the problems of life, environment, and wildlife in the Kingdom.

Address:

College of Science, King Saud University - Building No. 5, Second Floor, Office No. 2, 63 - Tel. Box 2455, Riyadh 11451 Website: <u>www.Psrcew.com</u> Tel: 4675838 Fax: 4679983

Dariya Research Chair for Environmental Studies





Dariya Research Chair for Environmental Studies at King Saud University was established in 25/04/1431H and cares about environmental aspects of engineering and sciences of the environment the vision of the chair is to be the first in the environmental programs locally and globally, to get a model eco-city, and the mission also summarized in finding a clean environment for sustainable development. The Dariya Research Chair for Environmental Studies will achieve its objectives by identifying environmental issues in the city of Diriyah and a survey of the ecological elements in it.

Dariya Research Chair: Prof. Dr. Nayef bin Abdullah Al-Dhabi.

Chair's Financier: Governor of Dir'iya City His Highness Prince /Ahmed Bin Abdullah Al-Saud.

Chair's vision: is to be the first in the environmental programs locally and globally, in order to get a model eco-city.

Chair's mission: Towards a clean environment for sustainable development.

Chair's Goals:

- 1. Preservation of natural environmental components.
- 2. Achieve sustainable development in a sustainable environment
- 3. Find a breather cultural, social and recreational
- 4. Achieve leadership in promoting the concept of model environmental city.

Post address:

Faculty of Science, King Saud University Building No. 5 Second floor. Office No. 61 P.O. Box 2455, Riyadh 11451 Website: <u>https://c.ksu.edu.sa/aces</u> Chair of Climate Change Research, Environment Development and Vegetation Cover





The Kingdom of Saudi Arabia attaches utmost importance to protecting and preserving the environment. The Kingdom's Vision 2030 included in its contents (that safeguarding our environment and its natural components is one of our religious, moral, and humanitarian duties, one of our responsibilities toward future generations, and one of the basic components of our quality of life). 17 initiatives were approved within the National Transformation Program to protect the environment. Among these national constants, the Chair was established at King Saud University, which is concerned with climate change and its effects on many environmental components, including the vegetation cover in the Kingdom of Saudi Arabia, to contribute to achieving this promising vision by conducting scientific research and contributing to environmental awareness and raising awareness of preserving the vegetation cover as one of the most important biological components that contribute to addressing the consequences resulting from climate change, and participating in scientific meetings in international forums to enhance the pivotal role of the Kingdom in the environmental aspect, which the world and all global research and academic bodies have begun to pay precise attention to.

Vision

Sustainable conservation of the environment and enhancing the role of vegetation cover in confronting environmental problems resulting from climate change.

Mission

Research and knowledge excellence in conducting research studies, increasing community awareness, and activating national and international partnerships to consolidate the role of vegetation cover in sustainable environmental conservation in light of accelerating climate change.

Objectives

1. Contribute to the localization of technology and research related to the environment

2. Achieve a distinguished scientific and research partnership with national and international research centers

3. Contribute to the preparation of qualified national cadres to deal with developments related to the Saudi environment

4. Contribute to the national knowledge stock by adding publications from books and scientific bulletins concerned with the environment.

5. Develop environmental awareness among segments of society

6. Enhance the positive image of the Kingdom's efforts to preserve the environment through national and international scientific conferences and meetings

7. Consolidate community partnerships by building bridges of cooperation with national entities interested in the environment.

8. Supporting digital documentation of vegetation cover in the Kingdom to create databases.

Chair Supervisor: Dr. Asmaa Abdul Karim Al-Haqil College of Science - King Saud University Website: https://climatechange.ksu.edu.sa/ar Email: <u>Climatechange@ksu.edu.sa</u>

Important links for students

Entity	Link	QR code
Deanship of Libraries Affairs	https://library.ksu.edu.sa/ar	
Dean of Student Affairs	https://sa.ksu.edu.sa/ar	
Deanship of Graduate studies	https://graduatestudies.ksu.edu.sa/ar	
Deanship of Admission and Registration Affairs	<u>https://dar.ksu.edu.sa/ar</u>	
Deanship for Educational and Academic Affairs	https://sciences.ksu.edu.sa/ar/node/99	
Deanship of Graduate Studies & Academic Research	https://sciences.ksu.edu.sa/ar/node/95	

Entity	Link	QR code
Botany & Microbiology Department	https://sciences.ksu.edu.sa/ar/node/115	
On line Academic Portal	https://edugate.ksu.edu.sa/ksu/init	
Student Rights Protection Unit	https://sa.ksu.edu.sa/ar/commitments	
Student clubs	https://sa.ksu.edu.sa/ar/Students-Clubs	
Guidance and Counseling Center	https://sa.ksu.edu.sa/ar/node/4338	
Dropping and adding	https://dar.ksu.edu.sa/ar/add_drop	
Alumni Center	https://alumni.ksu.edu.sa/ar	