KINGDOM OF SAUDI ARABIA
KING SAUD UNIVERSITY
COLLEGE OF SCIENCE
BOTANY & MICROBIOLOGY
DEPARTMENT

المملكة العربية السعودية
جامعة الملك سعود
كلية العلوم
قسم النبات والأحياء الدقيقة

HANDBOOK OF MICROBIOLOGY PROGRAM

2024

CONTENTS

Welcome to the Handbook of Microbiology Program

This handbook has been developed and activated in response to the growing efforts in the university to keep up with the accelerated steps taken by the university towards global leadership, which necessitates showing the scientific and research development of the Department of Botany and Microbiology. This handbook provides - in an easy way - a brief overview of the program and all the study plans offered by the department for bachelor's, master's, and doctoral programs that interest the department's members from faculty members, students, and researchers inside and outside the department. It also provides information about the specializations of faculty members and their equivalent positions - lecturers and teaching assistants- in the department, their websites, and how to contact them.

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

We will do our best to keep this guidebook updated and more useful

Head of the Department

Dr. Kholoud M. A. Alarjani

DEPARTMENT VISION

Upgrading teaching and research to keep pace with scientific progress and the requirements of the society in the fields of Botany & Microbiology and its applications

Contact the Department	
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Department website	https://sciences.ksu.edu.sa/ar/node/115
To go to the department building	
Collage of Science	Female students campus - Collage of Science

Establishment of the Department

The Department of Botany & Microbiology was established with the establishment of the College of Science in 1378 (1958) and is the oldest department specialized in studying plant sciences in the Kingdom. The Females' Branch was opened at the beginning of the academic year 1403/1404 H. In 1407 H (1978) a Microbiology specialization was started alongside the Botany Specialization opening the way to a change of the name of the Department to become, in 1410 H, "the Department of Botany and Microbiology" permitting the Department to confer a bachelor's degree in Botany and Microbiology as well as a double degree (Botany - Microbiology). As a result of this development, since 1410 H, the Department has been renamed the Department of Botany and Microbiology. It offers a Bachelor's degree in Botany and a Bachelor's degree in Microbiology. Since 1401 H (1981), the Department has embarked on 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 occupies the male section in the northwest part of Building No. 5 at the College of Science, and the female section is located in the western part of Building No.5 at the College of Science – the female students campus. It includes more than 20 laboratories for teaching, 28 laboratories for specialized research, and a central laboratory; all equipped with many scientific instruments, in addition to several classrooms for lectures, as well as a herbarium containing more than 4000 herbarium specimens that are reserved in a special way to make them look natural. This Herbarium is not only regarded as an important reference to the plants of the Arabian Peninsula but also serves the practical teaching and research in King Saud University. In addition to the Herbarium, there is a Botanical Garden that contains many wild plants belonging to different environmental types.

The Department includes the Females' Branch located in the University Studies Centre for Girls, which offers Bachelor's, Master's, and Doctoral degrees. Presently, there are more than 55 faculty members (males and females), and many 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.

Microbiology Programs

The Microbiology program is an educational and research program dedicated to advancing knowledge in microbiology Science, in alignment with the goals of the 2030 Saudi strategic plan. It strives to maintain high academic standards and offers comprehensive educational opportunities to Saudi nationals and others interested in these fields.

The program aims to qualify individuals in various sectors, including general education in the Ministry of Education, university education, 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, and the Saudi Wildlife Authority, and various private institutions. We aim to equip individuals to contribute effectively to national development by providing quality education and training.

Through our commitment to continuous scientific research, we seek to develop practical solutions and offer specialized professional advice to institutions involved in services, productivity, and development processes. This support enables these entities to fulfill their roles in advancing overall development objectives outlined in the 2030 Saudi strategic plan. Furthermore, the department is dedicated to promoting intellectual and cultural awareness within the community while also advocating for environmental conservation efforts.

The Study System at College of Science

Teaching at the College of Science is subject to the following scheme:
1. School year consists mainly of two regular semesters and a summer semester, if available.

2. The stage of academic progress is indicated by the academic level since the number of levels to graduate is at least eight levels in conformity with the approved Study Plan.

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

4. The duration of the summer semester is not less than eight weeks where the teaching time allocated for each course is doubled.

5. A number of courses (subjects) are taught during each academic level 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 a number of 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: The student selects 8 credit hours of the requirements of the University out of 22 optional credit hours during the period of study at the College.

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)

Registration is the cornerstone of the academic system, the center of the educational process, and the first step to start 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 have an access to the academic system by using the link: http://edugate.ksu.edu.sa; then, entering a user name and a password.

3. Online Registration (registration, adding, and dropping): a student can register, in person, 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 number of credit hours.

B. Adding and dropping: The student may drop and add courses during the first week of teaching provided that the study load does not go above, or lower than, the allowed course load.

4. To view the course schedule of the College 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, 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.

To exchange electronic messages and change the password.

In case of any problem while registering, please consult the College Registration Office (room 1A7 - Building 4).

2. Rules and Mechanisms for Registration of Courses

• The Course is a module that meets the needs of the level specified in the approved Study Plan in each specialty (Program). The Course has a number, a code, a title, and a description depending on the different departments (see the Department's Manual Guide).

• The Course is divided into a set of theoretical lectures and practical lessons (study units) taught weekly during the academic level.

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

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

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

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

• 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 Processes of dropping and adding are performed by the student electronically in the first

week of the semester through accessing the gate of the academic system of the University Deanship of Admission and Registration (http://edugate.ksu.edu.sa).

• No student has the right to register a course without passing its pre-requisite course.

• Students, who pass all courses without failures, are registered in the courses of the level beginning gradually with the lower levels according to the study plans approved.

• Students, who fail in some courses, are registered in courses that ensure their minimum study load in 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 × 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:

GPA = Total points (item 6) ÷ Number of hours registered in the semester (item7)

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 Grade	Value of Grade
From 95-100	Excellent +	A+	5.00
From 90 to less than 95	Excellent	A	4.75
From 85 to less than 90	Very Good+	B+	4.50
From 80 to less than 85	Very Good	B	4.00
From 75 to less than 80	Good +	C+	3.50
From 70 to less than 75	Good	C	3.00
From 65 to less than 70	Pass +	D+	2.5
From 60 to less than 65	Pass	D	2.00

Calculating the Average Cumulative

The GPA semester average is calculated as follows:

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

GPA = Grand total of points ÷ Grand total of credit hours

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

Calculating the grade of the first semester:

Course	Credit Hours	Mark	Grade	Grade Value	Points
Phys 101	4	67	D+	2.5	4 × 2.5 = 10
Chem101	4	73	C	3	4 × 3 = 12
Eng 121	3	77	C+	3.5	3 × 3.5 = 10.5
Arab 101	2	81	B	4	2 × 4 = 8
Total of credit hours	13	**total of points**			40.5
GPA = Total points ÷ No. of hours registered in semester **GPA = 40.5 ÷ 13 = 3.12**					

Calculating the grade of the second semester:

Course	Credit Hours	Mark	Grade	Grade Value	Points
Math 101	3	61	D	2	3 × 2 = 6
Stat 101	3	73	C	3	3 × 3 = 9
Computer Science 206	3	80	B	4	3 × 4 = 12
Arab 103	3	88	B+	4.5	3 × 4.5 = 13.5
Islam 101	2	92	A	4.75	2 × 4.75 = 9.5
Eng 122	3	97	A+	5	3 × 5 = 15
Total of credit hours	17	total of points			65
GPA = Total points ÷ No. of hours registered in semester **GPA = 65 ÷ 17 = 3.82**					

Calculating the average cumulative
GPA = Total points ÷ Total hours of the semester **GPA = 105.5 ÷ 30 = 3.52**

Dropping and adding of a course

• The process of dropping and adding is performed through portal (http://edugate.ksu.edu.sa) during the first week of the semester only; but the number of credit hours registered has to be at least 12 hours.

• The student may drop only one course due to an excuse acceptable to 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 at a maximum of four courses during the whole period of study at the College.

Attendance, postponing and dropping out of College

• The student must be regular in attendance attending at least 75% of the lectures and the practical classes.

• If any student has a percentage of absence of 25%, or more, in any course, he is denied access to the final exam of this course and his result is F.

• A student may apply for postponement of the study before the beginning of the semester for an excuse accepted by the College Board. The postponement should not exceed two consecutive semesters or three intermittent semesters as a maximum limit while studying at the College.

• The University Council may, in case of necessity, exempt the applicant from the previous provision.

• If a student drops out of College for one semester without requesting the postponement of his registration, the University has the right to dismiss his registration. The University Council has the right to do this for a lesser period of time.

• The student is not considered as dropping out of College if he is a visiting student at another university.

Visiting Student

The Visiting Student is a student who studies some courses at another university, or at a branch of the university to which he belongs without being transferred. The courses he studied are accredited according to the following regulations:

• The student has to have a transcript (including a grade point average) for, at least, two semesters at his college before he applies as a visiting student.

• The student must obtain a prior approval from his college permitting him to study as a visiting student while specifying the courses that will be studied. The College has the right to require a specific grade to be achieved by the student to offset the course. The student should obtain an official letter from the Deanship of Admission and Registration directing him to study as a visiting student.

• The student has to join a college or a university officially recognized.

• 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 of the total units of study that can be calculated from outside the University is twenty percent (20%) of the total units required for graduation at King Saud University.

• The courses that are studied by the visiting student are not included in the cumulative average. These courses are recorded in his academic record.

• The student must provide the Deanship of Admission and Registration with the results he obtained during the first two weeks of study in the semester following the period of study as a visitor. If not reported within that period, the student is considered as dropping out of College during those semesters.

Dismissal from the University

The student is dismissed from the University in the following cases:

• If he receives three consecutive warnings due to a cumulative average below a minimum of 2.

• The student may be given a fourth opportunity by the Council of the University based upon the recommendation of the College Council to raise his cumulative GPA by studying the available courses.

• The University Council may give the dismissed students, due to warnings, an opportunity that does not exceed two semesters as a maximum.

• If the student does not fulfill his graduation requirements at the College in a period of up to half of the period prescribed for graduation in addition to the duration of the Program.

• The student is given an exceptional opportunity by the University Council to meet the graduation requirements during a maximum period not exceeding twice the original term specified for graduation.

• The University Council may allow dismissed students, due to the exhaustion of failure times, to attend twice the duration of the Program. This extension should not exceed a maximum of two semesters.

Examinations and Grades

• Based on a proposal from the Department Council, the College Council specifies a mark for the student's semester work, varying from 40% to 60% of the final grade of the course.

• 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.

• Based on the recommendation of the course teacher, it is permissible for the Council of the Department, that teaches the course, to allow the student to complete the requirements of any course in the following semester and to give the student a grade of I (incomplete) in his 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.

• If one semester passes without changing the grade incomplete (I), the student is given an F which is calculated in the GPA and cumulative.

• The grades obtained by the student in each course are calculated according to the schedule mentioned above.

Restrictions of the Final Examinations:

• No student may be tested in more than two courses in one day.

• The student is not allowed to enter the final exam after half an hour of its beginning, and is not allowed to leave the exam room before half an hour after its beginning.

• Based on a recommendation from the relevant Department Council, the College Council specifies the duration of the final written exam to be within a period not less than one hour, and not more than three hours.

• Cheating in the exam, initiating it, or violating the instructions and rules of examination procedures are actions punishable in accordance with the Regulations of the Students' Discipline issued by the University Council.

• In cases of necessity, the College Council, in charge of teaching a course, has the right to approve re-marking of the answer sheets in a period of time not later than the beginning of the following semester in accordance with the following rules:

- A student may apply for re-marking the answer sheets of only one course per semester.
- The student, who wishes to re-mark his 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

• It is permissible, with the consent of the respective deans of the colleges, to transfer

from one college to another in accordance with the conditions approved by the College Council to which the student wishes to transfer.

• The student's college academic record has to show all courses previously studied, including grades, semester and cumulative averages throughout the 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 college academic record has to show all courses previously studied, including grades, semester and cumulative averages throughout the study at the college from which he is transferred.

Graduation

The student graduates after completing successfully the graduation requirements in accordance with the study plan, provided that his cumulative average is no less than 2 out of 5 (Pass).

Faculty members – Male section

S	Name	Job title	Specialization	E-mail
1	Ibrahim Abdul Wahid Arif	Prof	Algae	iaarif@ksu.edu.sa
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4	Suleiman Ali Al-Murai	Prof	Bacteria	sharbi@ksu.edu.sa
5	Abdullah Musaed Al-Falih	Prof	Fungi	Aalfalih@ksu.edu.sa
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7	Abdul Aziz Abdul Rahman Al-Askar	Prof	Fungi	aalaskara@ksu.edu.sa
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31	Abdul Majeed Mansour Al-Rifai	Teaching Assistant	Algae	aalrefaie@ksu.edu.sa

Faculty members – Female section

S	Name	Job title	Specialization	E-mail
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28	Haya Muhammad Al-Dosari	lecturer	Immunity	hdossary@ksu.edu.sa
29	Reham Musleh Al-Ahmadi	lecturer	Viruses	realahmadi@ksu.edu.sa
30	Shorouk Mohsen Al-Shahrani	lecturer	Fungi	salshahrani1@ksu.edu.sa

S	Name	Job title	Specialization	E-mail
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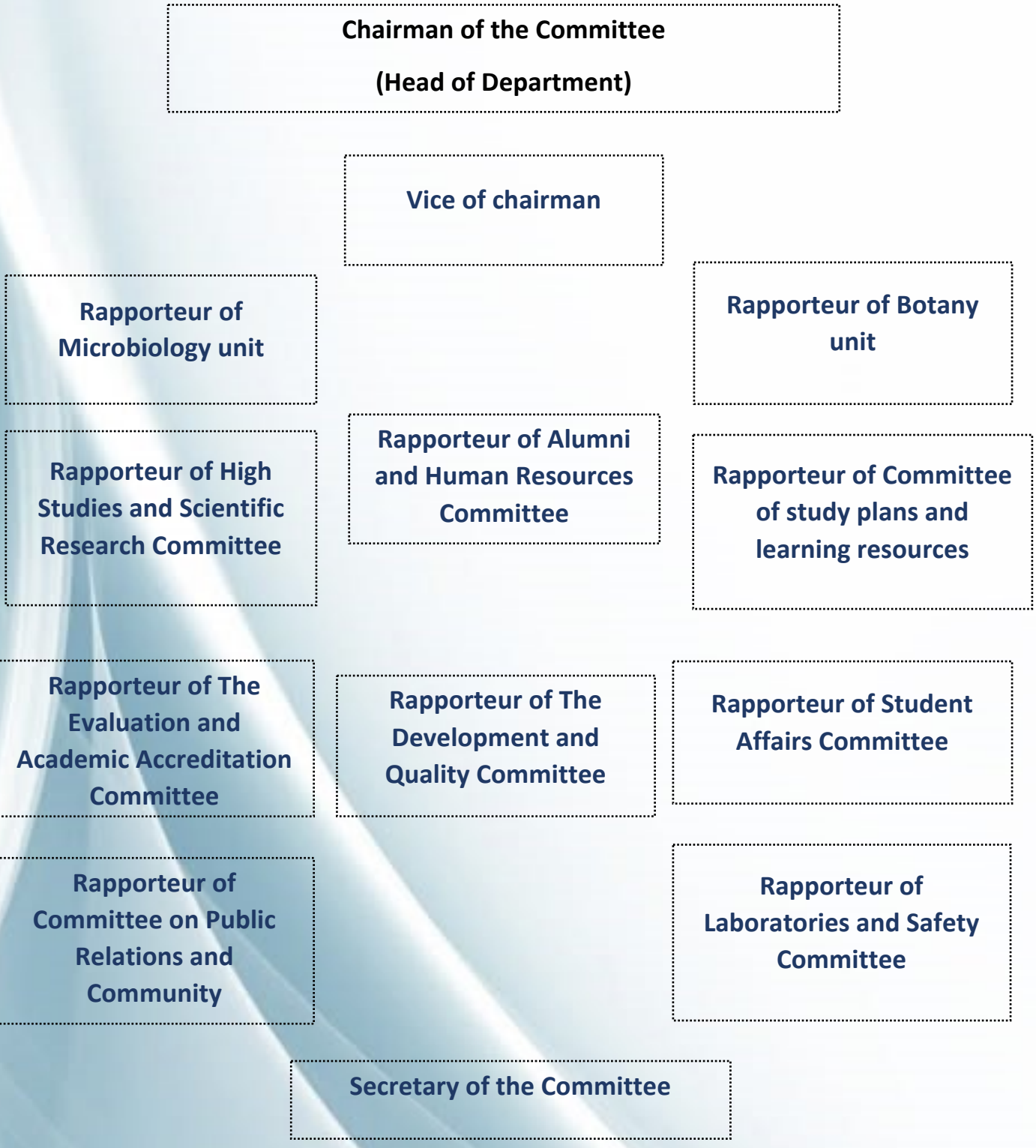
35	Al-Jawhara Fahad Al-Abad	lecturer	Bacteria	alalabbad@ksu.edu.sa
36	Dalia Saeed Al Sarar	Teaching Assistant	Bacteria	dsarar@ksu.edu.sa
37	Sarah Saleh Al-Saif	Teaching Assistant	Algae	saralsaif@ksu.edu.sa
38	Mashael RiyadhAljumaah	Teaching Assistant	Bacteria	Maljumaah1@ksu.edu.sa

Department Committees


Chairman of the Committee
(Head of Department)
Vice of chairman
Rapporteur of Microbiology unit
Rapporteur of Botany unit
Rapporteur of High Studies and Scientific Research Committee
Rapporteur of Alumni and Human Resources Committee
Rapporteur of Committee of study plans and learning resources
Rapporteur of The Evaluation and Academic Accreditation Committee
Rapporteur of The Development and Quality Committee
Rapporteur of Student Affairs Committee
Rapporteur of Committee on Public Relations and Community
Rapporteur of Laboratories and Safety Committee
Secretary of the Committee

Microbiology Programs

1-B.Sc. Program

Mission

Providing distinguished education and advanced scientific research to meet the needs of society through an innovative and stimulating academic and administrative environment, with the optimal use of technology and local and international partnership in the field of Microbiology.

Objective

1. To achieve innovative scientific research in the fields of Microbiology and its applications.
2. To provide distinguished education in the field of Microbiology and its applications.
3. To provide society services and support communication channels in society and labor market to raise the quality of life.
4. To implement and improve the quality management system's procedures.
5. To develop skills of faculty and staff in the Microbiology program to be more professional.
6. To invest the department's resources in increasing self-revenue to support the department's activities and scientific research.

College of Science Admission Requirements

Regularly updated by the College of Science Council

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. Microbiology)

Group Type: Compulsory 1

First							
Code	Course name	H	G	L	H	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						

Second							
Code	Course name	H	G	L	H	requisite	Yrl
STAT 101	An Introduction to Probability & Statistics	3				-	-
EPH 101	Fitness & Culture Health	1				-	-
CHEM101	General Chemistry (1)	4				-	-
CI 101	Academic Skills	3				-	-
ENGS 110	English	6				ENGS 100 - / P	-
Total	17						

Third							
Code	Course name	H	G	L	H	requisite	Yrl
BCH 101	GENERAL BIOCHEMISTRY	4				-	-
MBI 140	General Microbiology	3				-	-
BCH 220	Blood Biochemistry	3				-	-
MBI 240	Laboratory Skill	2				MBI 140 - / MC	-
Total	12						

Fourth							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 222	Microbial Fine Structure	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	-
Total	13						

Fifth							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 320	Microbial Diagnosis	2				MBI 140 - / P	-
FSN 321	Food Microbiology	3				MBI 140 - / P	-
MBI 331	Microbial Physiology	3				MBI 140 - / P	-
MBI 340	Microbial Ecology & Pollution	3				MBI 140 - / P	-
Total	11						

Sixth							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 334	Biochemical Instrumentation Techniques	2				MBI 140 - / P	-
MBI 344	Sanitation & Water Microbiology	2				MBI 340 - / P	-
MBI 351	Microbial Genetic	3				MBI 140 - / P	-
MBI 463	Antibiotics	3				MBI 140 - / P MBI 260 - / P	-
MBI 463	Industrial Microbiology	2				FSN 321 - / P MBI 280 - / P	-
Total	12						

Seventh							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 492	Training in the techniques of food microbes, environmental and human health	6			90	-	-
Total	6						

Eighth							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 450	Medical Virology	3				MBI 250 - / P	-
MBI 451	Immunology	3				MBI 351 - / P	-
MBI 460	Medical Bacteriology	3				MBI 260 - / P	-
MBI 470	Medical Mycology	3				MBI 270 - / P	-
MBI 490	Scientific Communication	1			90		-
MBI 499	Research Project	3			90		-
Total	16						

Ninth							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 493	Training in medical microbiology laboratories	6			90	MBI 450 - / P MBI 460 - / P MBI 492 - / P	-
Total	6						

Group Type: Elective 1 (8)

University requirements							
Code	Course name	H	G	L	H	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 IC 107 - / NC IC 108 - / NC IC 109 - / NC QURN 100 - / NC	-

University requirements							
Code	Course name	H	G	L	H	requisite	Yrl
QURN 100	Quran Kareem	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 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	-

University requirements							
Code	Course name	H	G	L	H	requisite	Yrl
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	-

University requirements							
Code	Course name	H	G	L	H	requisite	Yrl
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 (6)

Requirements from inside and outside the department							
Code	Course name	H	G	L	H	requisite	Yrl
BOT 102	Botany	3				-	-
ZOOL1 03	Principles of General Zoology	3				-	-
PHYS20 9	Biophysics	3				-	-
ZOOL2 12	Parasitology	3				MBI 140 - / P	-
CHEM2 53	Analytical Chemistry for Non-Major	2				CHEM101 - / P	-
BOT 346	Pollution & Environmental Protection	2				-	-
Total	16						

Requirements from inside and outside the department							
Code	Course name	H	G	L	H	requisite	Yrl
ZOOL2 62	Microtechniques	2				ZOOL103 - / P	-
Total	2						

Group Type : Elective 2 (12)

Requirements from inside and outside the department							
Code	Course name	H	G	L	H	requisite	Yrl
MBI 251	Molecular Biology	2				MBI 140 - / P	-
MBI 335	Biodegradation	2				MBI 140 - / P	-
MBI 345	Microbial Interaction	2				MBI 140 - / P	-
MBI 346	Mining Microbiology	2				MBI 140 - / P	-
MBI 348	Lichenology	2				MBI 140 - / P	-
MBI 349	Yeast	2				MBI 140 - / P	-
MBI 466	Introduction to Petroleum Microbiology	2				MBI 140 - / P	-
MBI 487	Plankton	2				MBI 140 - / P	-
Total	16						

Free Hrs.: 2

* 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- Master's Programs

Missio

Qualifying the M.Sc. students in Microbiology to substantial educational and research standards through an inspirational academic environment to meet the needs of KSA in all related domains.

Objectives

1. Provide high quality in-depth education and advanced scientific research in the fields of Microbiology sciences and its applications.
2. Providing an innovative academic and administrative environment capable of attracting the best graduates, faculty and researchers.
3. To promote relationships with national and international academic institutions and research centers in the fields of plant sciences
4. To maximize the use of updated technology in education and scientific research in the fields of plant sciences.

Admission Requirements for the M. Sc. Program:

1- The admission requirements 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 supplementary courses deemed necessary by the Department's Council.

The study plan of the master's degree (Ms. Sc. Microbiology)

Group Type: Compulsory 1

First							
code	course name	H	G	L	H	requisite	Yrl
MBI 511	ADVANCED VIROLOGY	2				-	-
MBI 521	ADVANCED BACTERIOLOGY	2				-	-
MBI 531	ADVANCED MYCOLOGY	2				-	-
MBI 561	ADVANCED PHYSIOLOGY OF MICROORGANISMS	2				-	-
MBI 571	ADVANCED STUDIES OF MICROALGAE	2				-	-
Total		10					

Second							
code	course name	H	G	L	H	requisite	Yrl
MBI 522	MECHANISM OF BACTERIAL INFECTION	2				-	-
MBI 532	MYCOTOXINS	2				-	-
MBI 566	MICROBIAL BIOTECHNOLOGY	2				-	-
MBI 572	BIOLOGY OF PROKARYOTIC ALGAE	2				-	-
MBI 591	SPECIAL TOPICS	2				-	-
Total		10					

Third							
code	course name	H	G	L	H	requisite	Yrl
MBI 555	MICROBIAL MOLECULAR GENETICS	3				-	-
MBI 592	SEMINAR	1				-	-
MBI 596	Thesis Proposal Preparation	1			12	-	-
Total		5					

Fourth							
code	course name	H	G	L	H	requisite	Yrl
MBI 600	THESIS	6			24	-	-
Total		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

3-Ph.D. Programs

Mission

Graduation of qualified scientists capable of performing world-class applied research and providing consultation in Microbiology through promoting culture and philosophy in science and technology.

Objective

1. Graduation of distinguished scientific and research cadres capable of supporting sustainable development of the country.
2. Maximizing the effective use of modern technology in education and research.
3. Maximizing the outcomes of scientific research through publication in high-caliber international journals and obtaining patent grants.
4. Partnership with leading national and international educational and research organizations.

5. Establishment of an inspirational and competitive environment that motivates innovation and encourages cooperation in education and research.

Admission Requirements for the Ph. D. Degree:

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

2- The candidate should hold a Master's Degree in Botany or Microbiology from King Saud University or an equivalent degree.

3- The candidate must pass a test and a personal interview as prescribed by the Department.

4- The candidate must have obtained at least a score of 450 in the Test of English as a Foreign Language (TOEFL), or score of not less than 4.5 in the International English Language Testing System (IELTS), in addition to passing 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 supplementary courses deemed necessary by the Department's Council.

The study plan for the Ph.D. degree (Ph.D. Sc. Microbiology)

Group Type: Compulsory 1

First							
code	course name	H	G	L	H	requisite	Yrl
MBI 611	MOLECULAR BIOLOGY OF VIRUSES	2				-	-
MBI 621	ADVANCED STUDIES IN BACTERIOLOGY	2				-	-
MBI 631	ADVANCED BIOLOGY OF FUNGAL	2				-	-
MBI 671	ADVANCED TOPICS IN MICROALGAE	2				-	-
MBI 691	SEMINAR	1				-	-
Total		9					

Second							
code	course name	H	G	L	H	requisite	Yrl
MBI 699	Thesis Proposal Preparation	1			9	-	-
Total		1					

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

Fourth							
code	course name	H	G	L	H	requisite	Yrl
BOT 700	DISSERTATION	1				MBI 699 - / P	-
Total		1					

Group Type : Elective 1 (9)

Elective							
code	course name	H	G	L	H	requisite	Yrl
MBI 612	TEACHING & ADVANCEMENT IN VIROLOGY	2				-	-
MBI 622	ADVANCED PATHOGENIC BACTERIA	2				-	-
MBI 623	ANTIBACTERIAL AGENTS & PLASMIDS	2				-	-
MBI 632	ADVANCED FUNGAL PARASITISM	2				-	-
MBI 633	ADVANCED STUDIES IN FUNGAL SYMBIOSIS	2				-	-
MBI 641	ADVANCED MICROBIAL ECOLOGY	2				-	-
MBI 651	IMMUNOLOGY & SEROLOGY	2				-	-

Elective							
code	course name	H	G	L	H	requisite	Yrl
MBI 652	TECHNIQUES IN MICROBIAL MOLECULAR GENETIC	2				-	-
MBI 661	SPORES BIOLOGY	2				-	-
MBI 662	ADVANCED MEDICAL MICROBIOLOGY	2				-	-
MBI 692	SPECIAL TOPICS	3				-	-
Total		23					

* 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

1) Depth of specialized knowledge (Specialist)

2) Critical thinking (Criticizer)

3) Effective communication (active)

4) Technical skills (Technical)

5) Leadership and Responsibility (Leader)

6) Initiative and adaptation (Initiator)

7) Integrity and professional ethics (Honest)

8) Lifelong learning (Ambitious)

Job Opportunities

Graduates of the Department of Microbiology 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 Defense: Laboratories – Hospitals
- Ministry of Interior: Laboratories and medical tests in health units and hospitals.
- Ministry of National Guard: Laboratories and hospitals affiliated with it.
- Ministry of Health: Laboratories and medical tests in all hospitals and clinics.
- 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.
- Private sector: Laboratories of private hospitals - Scientific institutions.

Deoartment Facilities

1-Student Labs

The department includes more than 20 teaching laboratories, and 28 laboratories that conduct laboratory experiments for study plan courses.

2-Specialized scientific research

(A) Central Research Laboratory

The Department's Central Laboratory of includes a set of equipment that can be utilized effectively by all researchers in the Department and others. A group of specialists operate these equipment’s conducting some tests for research projects for undergraduate students, postgraduates, faculty members and the community at large. This Laboratory falls under the supervision of a specialized committee.

(B) TISSUE CULTURE AND VIRUSES ISOLATION UNIT

This unit includes the latest equipment that enables students and researchers to conduct research and studies on the cultivation of microorganisms and living tissues.

(C) The Microscopic preparations unit

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

(D) Student training unit

Department of Botany and Microbiology takes training seriously. As mandated by the College of Science, all students have to undergo summer training as a pre-requisite for obtaining the B.Sc. degree in any specialization. This period extends over two to three months duration during the summer vacation. The Training Unit (TU) helps students find suitable training opportunities, or directs them to programs closer to their specialization studies, so as not to conflict between summer training and course work.

The summer training period 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 to be evaluated by the respective academic department.

Scientific societies and research chairs

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

The promotion and dissemination of all matters related to biological sciences, and consolidating a closer collaboration among science workers at local, Islamic and international levels.

Society Goals

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

2) Dissemination of scientific awareness, in the fields of 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 that are held annually and are 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 participations of employees of governmental and private institutions in specialized scientific meetings and discussions to achieve the desired benefit in improving the performance of the work and its 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 in the field of water, soil and air pollution.

• Types of fish and its nutritional benefits.

• Economically cultivated plants and ways of evaluation in the field of 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 focused on the functions of plant organs and water and heat stresses.
9. To conduct research on tissue culture and the production of economic plant strains.
10. Physiological studies on fruits and seeds after harvesting and during 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.

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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 on a regular basis to participate in research programs in Saudi universities.

Missions Adopted by the Research

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 environmental patterns and its bio-components, and the extent of adaptation of these species with the environmental conditions surrounding it.

- Conducting biodiversity inventory researches of species that live in the Saudi Arabia environment, and to ensure that they are scientifically defined by international specialists (scientific reference).

- Conducting genetic studies to identify the genetic fingerprints of the various species in the Kingdom since such activities are important from a scientific and practical considerations 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 for the protection of intellectual property rights of researchers and scholars s in the Kingdom.

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

4) To provide scientific advice and consultancy services in view of the deficiency in the number of specialists in the field of 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 major developments in contemporary issues in order to acquire new specialized cognitive skills. Furthermore, such activities contribute towards building a general culture in the community for maintaining environment and natural

components, through shedding more light on the problems facing the local environment and its negative repercussions on the safety of the community in general.

Technical Committee overseeing the Chair:

- **Prof. Ibrahim Bin Abdul Wahid Arif — Supervisor**
- **Prof. Ali Bin Abdullah Al-Humaidan — Member**
- **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 both Arabic and English.
- A location was allocated to the Chair and a signboard was put up.
- Currently, the required scientific equipment are being ordered.

Areas covered by the Chair and the Beneficiary segment

In general, all members of the society benefit from the programs of the Chair since the environment is important for various segments and categories. Therefore, it is important to strengthen their knowledge and build a general culture in the field of environmental protection and its natural components. Moreover, researchers, specialists and interested parties in the fields of 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, and 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 a number of 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 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 the service of scientific research projects carried out by the Chair, in addition to adopting the results of scientific research and implementing these results and their recommendations offering scientific solutions applicable to many of the problems of life, environment and wildlife in the Kingdom.

Address

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Dariya Research Chair for Environmental studies at King Saud University has been stablished in 25/04/1431H, and cares about environmental aspects of engineering and sciences of the environment, and the vision of the chair is to be the first in the environmental programs locally and globally, in order 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 environmental 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

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Website: https://c.ksu.edu.sa/aces

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 clear 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: Climatechange@ksu.edu.sa

Establishment

Based on His Excellency the President of the University's approval to establish the Covid-19 Virus Research Chair, His Excellency Prof. Dr. Vice Rector for Graduate Studies and Scientific Research issued administrative decision No. 139821/67/4 dated 23/5/1443 AH to establish this chair under the name Covid-19 virus Research Chair.

Introduction

The COVID-19 Virus Research Chair is concerned with developing strategic plans that aim to quickly detect this virus, track its spread and combat it with all possible measures, as well as contemporary and emerging viruses from abroad that have not appeared before in the Kingdom, as well as viruses that may be detected periodically in order to prevent Its spread in the country and its impact on all aspects of health, economic and social.

Vision

A leading chair in the research of the COVID-19 virus and its emerging strains in the Kingdom to predict and prevent the spread of the virus and other viral epidemics.

Mission

Establishing a database for the COVID-19 virus and its related strains in the Kingdom, and studying the mechanism of its development and emergence, which contributes to develop control mechanisms, and predicting the possibility of emerging other viruses in order to limit their spread and reduce their effects on public health and the national economy.

Objectives

1. To develop a strategic plan for quick detection, resistance and tracking of the spread of the COVID-19 virus and other contemporary and emerging viruses from abroad, as well as viruses that may be identified frequently in order to prevent their spread in the Kingdom.

2. Developing and accessing extremely efficient diagnostic kits for the detection of COVID-19 and other infectious and imported diseases in humans and animals.

3. Monitoring the mechanisms involved in the formation and transmission of the COVID-19 virus, along with contemporary and emerging viruses, in the Kingdom by periodic and continuous epidemiological surveillance of prospective humans and animals.

4. To study the genetic variety and patterns of change and evolution in existing and emerging COVID-19 virus strains, with the goal of predicting the emergence of novel strains capable of rapidly spreading lethal epidemic infections.

5. to develop potential vaccines and pharmaceutical products for the treatment and prevention of COVID-19 and other contemporary and emerging viruses using molecular biology techniques and recombinant DNA, as well as to test the safety and efficacy of these vaccines and pharmaceutical products in laboratory studies using tissue cultures and experimental animals.

Chair Supervisor: Prof. Fahad Nasser Al-Majhdi

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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	https://dar.ksu.edu.sa/ar	
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	
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	

Entity	Link	QR code
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	