

KINGDOM OF SAUDI ARABIA
Ministry of Education
University of Tabuk
Faculty of Science
Department of Biology



المملكة العربية السعودية
وزارة التعليم
جامعة تبوك
كلية العلوم
قسم الأحياء

Master's Program in Biodiversity Handbook

Biology Department 1444-1445

Contents

Faculty of Science:.....	5
Background History:.....	5
Faculty of Science Vision:.....	5
Faculty of Science Mission:	5
Faculty of Science values:	5
Faculty of Science Objectives:.....	5
Academic Departments in the Faculty of Science:.....	5
Post Graduate Degrees Offered by the Faculty of Science:	6
Biology Department	6
Department Vision:.....	6
Department Mission:	6
Department Objectives:	6
Degrees offered by the Department of Biology:.....	6
Head of Biology Program word:.....	6
Master of Science in Biodiversity:.....	7
Preface:.....	7
Emergence of the program:	7
Program Mission:	8
Program Goals:.....	8
Program Learning Outcomes:.....	8
Knowledge:	8
Skills:	8
Values:.....	8
Program tracks:	8
Program Exit Point:	9
Responsibilities of The Departmental Scientific Committee.....	9
TheMster's iProgram in Biodiversity graduate attributes:	9
Potential Professional Occupations/Jobs:.....	9
Degree Offered by the program:.....	10
Program Study Plan	10
Program Courses' Summary and description	14
Important Definitions:	18
Services offered to the students.....	20

Admission electronic services:.....	20
Important Guides:	20
Learning Resources, Facilities, and Equipment:.....	21
Learning Resources.	21
Facilities and Equipment.	21
Applying for the Postgraduate Programs:	22
Applicants' Admission Requirements	22
Mechanism	22
Admission Postponement:.....	23
Procedures to Postpone Admission:.....	23
Procedures to Postpone study.....	24
Postponing Study.....	25
General Provisions Regarding Postponement	25
Procedures to Postpone study.....	25
Cancel Enrollment Graduate Studies in the following cases:.....	26
Re-enrollment	26
Transfer	27
Transfer from another university to the University of Tabuk.....	27
Transfer from one major within the university to another.....	27
Transfer from one program to another	28
Study System	28
The Study System:	28
Academic Calendar for Postgraduate Studies	28
Supplementary Courses:.....	28
Attendance and Withdrawal from Study:	29
Graduation:	30
Examination System:.....	30
Final Examinations Procedures:	30
Remarking the Exam:	31
Calculating Grades:	31
Degree Awarded:.....	32
The Prescribed Period for Obtaining a master's degree in Biodiversity:	32
Research Projects:	32
Electronic Services:	32

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Electronic Gate	32
Department Website.....	32
E-learning Platform – Blackboard.....	33
Contact information:	33

Faculty of Science:

Background History:

The Faculty of Science was founded by the Council of Higher Education under Resolution No. 15/37/1426 H. In accordance with the directive No. 9683 / m. E issued by the Custodian of the Holy Prime Minister and Chairman of the Board of Higher Education on 5/8/1426, the branch of King Abdulaziz University in Tabuk was established. This branch comprises several departments that provide bachelor's degrees in mathematics, Physics, Chemistry, and Biology.

Faculty of Science Vision:

“A distinguished faculty in education and scientific research to serve the community.”

Faculty of Science Mission:

“Offering outstanding academic learning to graduate qualified human cadres in the theoretical and applied sciences to meet the needs of the labor market and society in accordance with an environment that supports scientific research.”

Faculty of Science values:

- Social responsibilities.
- Quality and excellence.
- Leadership.
- Creativity and innovation.
- Honesty transparency.

Faculty of Science Objectives:

- To improve students' ability and capability in the various faculty programs and work to develop new programs for graduate studies in all departments.
- To enhance faculty staff efficiency attract more expertise and dispatch distinct students to obtain an M. Sc. degree and doctorate.
- To increase the effectiveness of the means of improvement and qualitative development of the faculty; by holding specialized scientific seminars and scientific conferences, and feedback from students about faculty members.
- To assess and design modern curricula for the faculty, and to study the creation of new programs in the faculty in line with development requirements and the needs of the labor market.
- To cooperate and coordinate with Faculties of Science at other national and international institutions and stand on the experiences of similar faculties inside and outside the Kingdom in the areas of faculty programs to obtain academic accreditation.
- To encourage faculty research activities for community uplift, and develop the system of scientific research, by establishing state-of-the-art research laboratories, and the issuance of a special scientific journal for the faculty.

Academic Departments in the Faculty of Science:

1. Department of Biology.
2. Department of Chemistry.
3. Department of Physics.

4. Department of Mathematics.
5. Department of Biochemistry.
6. Department of Statistics.

Post-Graduate Degrees Offered by the Faculty of Science:

1. Master of Science in Biodiversity (Department of biology).
2. Master of Science in Mathematics (Department of Mathematics).
3. Master of Science in Applied Statistics (Department of Statistics).
4. Master of Science in Chemistry (Chemistry Department).
5. Higher diploma in Environmental Sustainability (biology department).
6. Higher diploma in Waste Management (chemistry department).

Biology Department

Department Vision:

A leading and innovative department in education, scientific research, and qualification of competencies to serve the community.

Department Mission:

The Biology Department offers excellent opportunities for innovative scientific research and the preparation of graduates who are scientifically qualified and competent in the service of their community.

Department Objectives:

1. Fulfilling the requirements of the region and the Kingdom by providing highly skilled individuals in the field of Biology.
2. Meeting the scientific research and applied study requirements in the region and the Kingdom, namely in the field of Biology, in accordance with the latest scientific advancements.
3. Offering scientific and technical services to both the public and governmental sectors in many areas.
4. Ensuring the delivery of outstanding amenities to its employees, helpers, and students.
5. Engaging in community service through multiple means.
6. Staying updated on scientific advancements in many sectors by obtaining the latest instruments and methods specifically used in biological sciences disciplines that involve micro techniques.
7. Studying pollutants and their impact on living organisms, as well as developing methods to prevent pollution, contribute to environmental conservation.

Degrees offered by the Department of Biology:

- 1- Bachelor of Science in Biology
- 2- Master of Science in Biodiversity
- 3- Higher Diploma in Environmental Sciences (Environmental Sustainability Path)

Head of Biology Program word:

Praise be to God, Lord of the Worlds, and prayers and peace be upon the most honorable of the prophets and messengers, our master Muhammad and his family and all his companions, and I am pleased to welcome you to the official website of the program of Biology, Faculty of Science, University of Tabuk, and it gives me great pleasure to speak to you on behalf of the rest of my fellow members of the program and my own behalf. The faculty and program staff members of the faculty, technicians, and administrators who had an active and pioneering role in developing the program's outputs, whether at the level of quality of teaching and learning or at the level of research publications in scientific journals such as genetics research,

molecular biology, research of microorganisms, plant and environmental sciences, animal science research, biotechnology and nanotechnology and others In addition to the serious and continuous endeavor to develop the laboratories and laboratories of the educational and research program and to develop study programs and curricula in accordance with quality standards and the requirements of the labor market. The framework of the national vision of our beloved Kingdom 2030.

Head of Biology Department.

Dr. Fuad Abdullah Alatawi.

Master of Science in Biodiversity:

Preface:

The diversity of life on Earth is crucial for the ecological balance of our planet and for our human welfare. Yet, nature is experiencing unprecedented levels of stress. Our increasing requirements for food, water, and land, together with our escalating demands for energy and other commodities, are causing the destruction of habitats, contamination of our air and water, and the extinction of species of animals and plants. The current biodiversity loss is occurring at a rate that is ten thousand times greater than the rate at which it was disappearing a century ago.

"We are in a bottleneck of overpopulation and wasteful consumption that could push half of Earth's species to extinction in this century." (E.O Wilson).

Emergence of the program:

Considering the vision and mission of the College of Science at Tabuk University and recognizing the importance of establishing a master's program in Biodiversity due to its significant value and the necessity of its preservation and development, the Department of Biology is committed to preparing national cadres equipped with sufficient scientific knowledge and practical skills. This knowledge is essential for implementing all efforts, plans, and strategies aimed at preserving, managing, monitoring, and developing terrestrial and marine biodiversity in the Kingdom of Saudi Arabia at all levels, ultimately contributing to the achievement of the goals of Vision 2030 in this regard. Therefore, it was imperative to establish this distinguished program.

This program has been discussed, recommended, and approved by the biology department council minutes number 15, held on Monday 19/06/1442. Implementation and study started in 1443.

Program Mission:

“To prepare a qualified and skilled cadre in the field of biological diversity and conservation through an academic environment supportive of scientific research and community service.”

Program Goals:

- To develop a stimulating and supportive academic environment that meets the beneficiary’s needs.
- To prepare qualified, distinguished, and professional cadres with the knowledge and skills needed in biodiversity and conservation to meet the demands of the local and national labour market.
- To equip graduates with skills in research, experimentation, observation, data analysis, and strategic planning across various fields of biological diversity and conservation.
- To contribute effectively in community service through active partnerships, and participation that promote awareness of the importance of biodiversity.

The mission, goals, and objectives were developed and modified to cope with the various political, economic, social, and cultural changes that have affected the Kingdom and the University of Tabuk. The mission & goals of the M.Sc. in Biodiversity program agree with the mission & goals of the Department of Biology, Faculty of science as well as the University of Tabuk.

Program Learning Outcomes:

Knowledge:

- Demonstrate a thorough understanding of theories, principles, and concepts in biodiversity and related disciplines, and their application to address issues in conservation biology.
- Recognize the key processes, tools, techniques, best practices, regulations, specialized terminology, and research methodologies essential for studying and conserving biodiversity.

Skills:

- Apply scientific knowledge, skills, and current techniques to develop practical solutions for biodiversity-related issues in unfamiliar contexts .
- Analyze current research to address and propose sustainable solutions for challenges in biodiversity conservation.
- Evaluate the available information, data, and multidisciplinary approach required by current research to address issues in biodiversity conservation
- Formulate hypotheses, design experiments, and establish protocols to collect and interpret data on biodiversity issues to solve real-world problems.
- Communicate knowledge, ideas, and research findings on biodiversity and conservation to diverse audiences, including both specialists and the public, using oral, written, and visual methods.

Values:

- Demonstrate integrity, professionalism, and ethical principles in the field of biodiversity .
- Collaborate and lead research and projects with full responsibility, manage professional development and specialized tasks independently, and contribute to enhancing the quality of life in society.

Program tracks:

- The program does not offer any specialized tracks.

Program Exit Point:

- The program currently has no exit points.

Responsibilities of The Departmental Scientific Committee.

- 1- Reviewing and developing the department's postgraduate program plans.
- 2- Conducting admission tests for applicants for postgraduate studies and nominating their admission proposal (according to the specializations appropriate to the graduate studies plan) to the Section Council.
- 3- Make a scholarship plan for the department in which the specializations that have a deficit in the department are identified.
- 4- Follow up on the status of teaching assistants and those on scholarships abroad and prepare databases for them.
- 5- Checking the files of applicants for promotion before submitting them and ensuring that the candidate meets the conditions and regulations.
- 6- Supervising all quality works in the graduate studies program.
- 7- Preparing a quarterly executive plan for the work of the committee and the tasks of the members.

The head of the committee is charged with setting up a meeting through (Sahel) periodically to be determined by the head of the committee and discussing the relevant issues with the members, coming out with the results and recommendations, and approved by the head of the Department.

The Master's Program in Biodiversity graduate attributes:

GA1: Proficiency in Biodiversity: In-depth knowledge, and understanding of concepts, theories, and strategies in Biodiversity and related fields.

GA2: Creative and innovative: Creative, analytical thinking, and Problem-solving.

GA3: Skillful in Biodiversity techniques and tools: sciences. Knowledge of core procedures, tools, and techniques across different fields of biological sciences.

GA4: Effective and flexible collaboration: Makes effective decisions as a team member or leader, with strong interpersonal and flexible communication skills.

GA5: Specialized in biodiversity and its applications: understanding and hands-on experience with modern tools for analysis and experimentation, including those specific to biodiversity.

GA6: Commit to ethical values and social responsibility: commitment to societal needs and sustainability

Potential Professional Occupations/Jobs:

- Education.
- Research.
- Teaching.
- Botanist.
- Zoologist.
- Environmental Protection Inspector.
- Forestry Specialist.

- Animal Husbandry Specialist.
- Fish and Crustacean Farm Specialist.
- Environmental and wildlife protection specialist.
- Technical and ecological monitoring in the laboratories in institutions such as the Ministry of Environment, Water and Agriculture and protection, and conservation of the protected areas, natural reserves, and specialists.
- Marine life observers.
- Wildlife advisers/officers.
- Project officers in various projects in institutions such as the National Centre for Wildlife.
- Aramco and other non-government organizations.

Degree Offered by the program:

The program offers a Master's Degree in Biodiversity.

Program Study Plan

General Components:

Prerequisite	Credits hours	Number of courses	Weights %
Compulsory courses	42	14	87.5%
Electives courses	6	2	12.5%
Total	48	16	100%

Program Elective Requirements.

Course Title	Course Code	Contact Hours			Credit	Prerequisites
		Theoretical	Practical	Training		
1 Biodiversity and Climate Change	BIOD516	3	-	-	3	BIOD506
2 Bioinformatics in Biodiversity	BIOD518	3	-	-	3	BIOD507
3 Biodiversity and Conservation in KSA.	BIOD540	3	-	-	3	BIOD503
4 Wildlife Ecology and Management	BIOD548	3	-	-	3	BIOD507

Program Core Requirements:

Course Title	Course Code	Contact Hours			Credit	Prerequisites
		Theoretical	Practical	Training		
1 Principles of Biodiversity	BIOD501	3	0	0	3	None
2 Evolution	BIOD502	3	0	0	3	None

	and Biodiversity						
3	Plant and Animal Genetic Resources	BIOD503	3	0	0	3	None
4	Population and Community Ecology	BIOD504	3	0	0	3	None
5	Biodiversity Classification	BIOD505	3	0	0	3	BIOD501
6	Aquatic Biodiversity	BIOD506	3	0	0	3	BIOD501
7	Terrestrial Biodiversity	BIOD507	3	0	0	3	BIOD501
8	Microbial Biodiversity	BIOD508	3	0	0	3	BIOD501
9	Threats to Biodiversity	BIOD509	3	0	0	3	BIOD501
10	Assessment and Monitoring of Biodiversity	BIOD510	3	0	0	3	BIOD502
11	Biodiversity Conservation and Management	BIOD530	3	0	0	3	BIOD503
12	Biodiversity Legislations	BIOD531	3	0	0	3	BIOD501
13	Research Project (1)	BIOD525	3	0	0	3	BIOD508
14	Research Project (2)	BIOD598	3	0	0	3	BIOD525
Total			42	0	0	42	

Course distribution Table according to program levels

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours
Level 1	BIOD501	Principles of Biodiversity	Required	-	3
	BIOD502	Evolution and Biodiversity	Required	-	3
	BIOD503	Plant and Animal Genetic Resources	Required	-	3

	BIOD504	Population and Community Ecology	Required	-	3
Level 2	BIOD505	Biodiversity Classification	Required	BIOD501	3
	BIOD506	Aquatic Biodiversity	Required	BIOD501	3
	BIOD507	Terrestrial Biodiversity	Required	BIOD501	3
	BIOD508	Microbial Biodiversity	Required	BIOD501	3
Level 3	BIOD509	Threats to Biodiversity	Required	BIOD501	3
	BIOD510	Assessment and Monitoring of Biodiversity	Required	BIOD502	3
	BIOD5xx	Elective 1	Elective	BIOD5xx	3
	BIOD525	Research Project I	Required	BIOD508	3
Level 4	BIOD530	Biodiversity Conservation and Management	Required	BIOD503	3
	BIOD531	Biodiversity Legislations	Required	BIOD501	3
	BIOD5xx	Elective 2	Elective	BIOD5xx	3
	BIOD598	Research Project II	Required	BIOD525	3
Elective Courses	BIOD516	Biodiversity and Climate Change	Elective	BIOD506	3
	BIOD518	Bioinformatics in Biodiversity	Elective	BIOD507	3
	BIOD540	Biodiversity and Conservation in KSA.	Elective	BIOD503	3
	BIOD548	Wildlife Ecology and Management	Elective	BIOD507	3

Study Plan Courses & Levels:

1st level

1st year

Course Title	Course Code	Contact Hours			Credit	%	Prerequisites
		Theoretical	Practical	Training			
1 Principles of Biodiversity	BIOD501	3	0	0	3		None
2 Evolution and Biodiversity	BIOD502	3	0	0	3		None
3 Plant and Animal Genetic Resources	BIOD503	3	0	0	3		None
4 Population and Community Ecology	BIOD504	3	0	0	3		None
Total		12	0	0	12		

2nd level

1st year

Course Title	Course Code	Contact Hours			Credit	%	Prerequisites
		Theoretical	Practical	Training			
1 Biodiversity Classification	BIOD505	3	0	0	3		BIOD501
2 Aquatic Biodiversity	BIOD506	3	0	0	3		BIOD501
3 Terrestrial Biodiversity	BIOD507	3	0	0	3		BIOD501
4 Microbial Biodiversity	BIOD508	3	0	0	3		BIOD501
Total		12	0	0	12		

3rd level

2nd year

Course Title	Course Code	Contact Hours			Credit	%	Prerequisites
		Theoretical	Practical	Training			
1 Threats to Biodiversity	BIOD509	3	0	0	3		BIOD501
2 Assessment and Monitoring of Biodiversity	BIOD510	3	0	0	3		BIOD502
3 Elective 1	BIOD5xx	3	0	0	3		BIOD5xx
4 Research Project 1	BIOD525	3	0	0	3		BIOD508
Total		12	0	0	12		

4th level

2nd year

Course Title	Course Code	Contact Hours			Credit	%	Prerequisites
		Theoretical	Practical	Training			
1 Biodiversity Conservation and Management	BIOD530	3	0	0	3		BIOD503
2 Biodiversity Legislations	BIOD531	3	0	0	3		BIOD501
3 Elective 2	BIOD5xx	3	0	0	3		BIOD5xx
4 Research Project 2	BIOD598	3	0	0	3		BIOD525
Total		12	0	0	12		

Program Courses' Summary and Description:

Course code:	BIOD501	Course title:	Principles of Biodiversity
Course Credit	3	Course	None
Hours:		Prerequisite	

This course provides the basic concepts of biodiversity, definitions, the importance of biodiversity, and biodiversity at different levels of ecosystems. It may help in exploring the structure of biodiversity from evolutionary and ecological perspectives, biodiversity on our planet, and threats to biodiversity. Further, it also includes the management and conservation of biodiversity.

Course code:	BIOD502	Course title:	Evolution and Biodiversity
Course Credit	3	Course	None
Hours:		Prerequisite	

This course is designed to introduce the student to evolutionary theory, its concepts, and the origin and scope of biodiversity. Also, it covers topics on evolutionary processes to generate and maintain biodiversity, Spatio-temporal patterns of biodiversity, and evolutionary relationships between specific groups of organisms. Further, it describes natural selection and its impact on biodiversity, ecological concepts, environmental changes, the origin of life, and the level of selection in different organisms. It also provides case studies on speciation, adaptation (e.g. adaptive radiation), spatial distribution concerning evolution, and biodiversity.

Course code:	BIOD503	Course title:	Plant and Animal Genetic Resources
Course Credit	3	Course	None
Hours:		Prerequisite	

This course offers a review of key biodiversity problems in natural and agricultural habitats, genetic population structure, molecular markers of genetic diversity, and economic values of biodiversity. It describes the plant and animal genetic resources, their collection, exploration, ex-situ, and in-situ conservation, and utilization of genetic resources in plant breeding. This course will cover the status of genetic remedies. Further, it describes the genetic resources of aquatic, rhizospheric airborne microorganisms.

Course code:	BIOD504	Course title:	Population and Community Ecology
BIOD 504		Course	None
Course Credit	3	Prerequisite	
Hours:			

This course describes the population ecology and the characteristics of a population, population size, density, dispersion, age structure, Natality (birth rate), Mortality (death rate), life table, population dynamics, the theory of population growth, and regulation of population density. The course also describes community ecology, characteristics, and structure of the community, methods of study of community, and community dynamics.

Course code:	BIOD505	Course title:	Classification of Biodiversity
Course Credit	3	Course	BIOD501

Hours:

Prerequisite

This course describes the classification of biodiversity, the origin, and development of biological diversity from gene to species, native to invasive species, systematics, and classification of various organisms. The course will cover the classification of microorganisms, plant diversity, fungi, and animals (vertebrates and invertebrates). Besides, there is a specialization on parasitic life forms. It introduces a variety of species expressed at the genetic level. Also, it includes the principles of taxonomy.

Course code:
Course Credit
Hours:

BIOD506
3

Course title:
Course
Prerequisite

Aquatic Biodiversity
BIOD501

This course describes aquatic ecosystems (i.e. Freshwater, marine, and wetland ecosystems), and their biodiversity, systematics, and productivity. It also provides fundamental information on aquatic ecosystems, the impact of environmental factors, and human activities on the biodiversity of aquatic ecosystems. Also, the course describes the methods of establishment and conservation of aquatic and wetland resources and protected areas, marine fisheries, and case studies on different topics of aquatic biodiversity.

Course code:
Course Credit
Hours:

BIOD507
3

Course title:
Course
Prerequisite

Terrestrial Biodiversity
BIOD501

This course describes terrestrial ecosystems, their structure, function, modeling, types, and resources. Floral, faunal, and microbial biodiversity are also described in this course. The course will cover wildlife biology, and some important issues related to terrestrial ecosystems such as Deforestation, Desertification, Reforestation, and Sustainable development. Information on major biomes and hotspots with some case studies will also be provided.

Course code:
Course Credit
Hours:

BIOD508
3

Course title:
Course
Prerequisite

Microbial Biodiversity
BIOD501

This course provides microbial diversity in marine, freshwater, and terrestrial habitats, systems, and various forms. It focuses on the molecular methods that are used within the field, the importance of microbial diversity in different environments, and the mechanisms that establish and regulate diversity within microbial communities. It also provides laboratory training on methods to study microbial communities including recent metagenomics advances, metatranscriptomics, metaproteomics, and functional metagenomics. Besides, it provides a series of case studies on the meta-omics of environmental and human-associated microbial communities.

Course code:
Course Credit
Hours:

BIOD509
3

Course title:
Course
Prerequisite

Threats to Biodiversity
BIOD501.

This course describes the main threats to biodiversity and the risks of human activities pose to biodiversity. It also, analyzes different risks and threats that cause habitat losses and damages, the distribution of species, and the consequences of biodiversity loss of organism species on humans' life, as

well as on the environment. Also, it discusses the impact of overhunting; overfishing, and over-harvesting on the loss of biodiversity with some historical examples. Besides, it also provides topics on environmental pollution, climatic change, exotic species, and disturbance of the ecosystem.

Course code:	BIOD510	Course title:	Biodiversity Evaluation and Monitoring
Course Credit	3	Course	BIOD502
Hours:		Prerequisite	

This course describes the need, importance, and methods of biodiversity assessment and monitoring. It also identifies the Environmental Impact Assessment (EIA) and modeling of biodiversity. Besides, it describes the modern tools and techniques used for data collection and its statistical analysis, applications of Remote sensing (RS), Geographical information systems (GIS), Global Positioning System (GPS), Radio collaring, Radio telemetry, camera trapping, a molecular technique like DNA fingerprinting and DNA barcoding, and the use of indicators and instruments. Further, it provides an overview of approaches and challenges in biodiversity assessment and monitoring and some case studies on biodiversity assessment and monitoring.

Course code:	BIOD516	Course title:	Biodiversity and Climate Change
Course Credit	3	Course	BIOD506
Hours:		Prerequisite	

The course describes a different component of climate and climate change. It also describes the impact of climate change on biodiversity at different organizational levels, the distribution of living organisms, the strategies of biodiversity management, the significant application of these methods under climate change, and the adaptation of the living organism to such changes. It covers topics on the effectiveness of national and international laws that contribute to biodiversity conservation by decreasing the negative practices that lead to climate change. The course also provides case studies on the impact of climate change on biodiversity.

Course code:	BIOD518	Course title:	Bioinformatics in Biodiversity
Course Credit	3	Course	BIOD507
Hours:		Prerequisite	

This course helps the students develop skills in the application of computational methods for the analysis of biological data. It provides theoretical and practical background on computational analysis in Genomics and Proteomics; DNA sequencing and fragment assembly, identification of genes in DNA, gene regulation, expression, methods to study genetic diversity, homology and analogy, protein folding, and protein structure. It also provides skills in the search of DNA and protein sequences from different database resources, homology and pattern-based search algorithms, and sequence and evolutionary search comparisons.

Course code:	BIOD525	Course title:	Research Project I
Course Credit	3	Course	BIOD508
Hours:		Prerequisite	

The course introduces the students to the concepts, importance, and basic requirements of scientific research, the value of ethics and plagiarism in scientific research, and the different types of statistical

methods used to analyze data in the field of biology. It also provides extensive knowledge on types of research, how to formulate a hypothesis, questions, and objectives of research topics, instruments used in data collection, and how to search and review literature for certain research topics, Besides, the course helps students to develop scientific writing, rephrasing and summarizing skills to draft different types of scientific reports and manuscripts (e.g. articles, dissertation, etc..). Further, it prepares students for oral presentation and to conduct future research studies with an emphasis on scientific problems related to Biodiversity.

Course code:	BIOD530	Course title:	Biodiversity Conservation and Management
Course Credit Hours:	3	Course Prerequisite	BIOD503

This course covers topics on the conservation and management of the biodiversity of plants and animals in their natural habitats and selected areas. It also supports the development of practical skills in the conservation of animal and plant species, wildlife conservation, habitat management, and ecological sustainability. Also, it provides in-situ and ex-situ conservation of plants, and animals, translocation of animals and plants, the UN Convention on Biological Diversity and the member countries, national biodiversity authority, and conservation acts. It also describes the Environmental Protection Act and the Wildlife Protection Act. Further, it provides case studies from local and global communities on the conservation and management of biodiversity.

Course code:	BIOD531	Course title:	Biodiversity Legislation
Course Credit Hours:	3	Course Prerequisite	BIOD501

This course provides an introduction to international policies and legal instruments for biodiversity conservation, the nature of treaties, the formation of treaties, participation in treaties, interpretation of treaties, and reservations. It also describes major international conventions on biodiversity protection, conservation, and management policies and legal instruments for biodiversity conservation in the Kingdom of Saudi Arabia (KSA) National Biodiversity Strategy and Action Plan.

Course code:	BIOD540	Course title:	Biodiversity and Conservation in Saudi Arabia
Course Credit Hours:	3	Course Prerequisite	BIOD503

This course studies biodiversity and conservation and the **national strategies for the conservation of biodiversity in the Kingdom of Saudi Arabia (KSA)**. It also includes in-situ and ex-situ conservation of plants and animals as well as conservation and development of natural resources in KSA. Besides, its studies regulate access to genetic resources, the convention on biological diversity, member countries, national biodiversity authority, and conservation acts and legislations. Also, it introduces the modern methods used for wildlife conservation, habitat management ecological sustainability, and environmental education in KSA.

Course code:	BIOD548	Course title:	Wildlife Ecology and Management
Course Credit	3	Course	BIOD507
Hours:		Prerequisite	

This course explores wildlife and the metapopulations of wildlife. It includes flora and fauna, forest ecosystems, fragmentation, and habitat loss that led to species extinction. It also covers topics on the continued biodiversity loss due to invasive species, endangered animals and plants, sampling, and related research methods such as theoretical models, maximum risk projections, general linear modeling in wildlife studies, and life table evaluations. The course also concentrates on animal sampling and the ongoing management protocols used in natural wildlife habitats. Further, the course provides case studies on wildlife ecology and management (e.g. Population management, wildlife environmental management).

Course code:	BIOD598	Course title:	Research Project II
Course Credit	3	Course	BIOD525
Hours:		Prerequisite	

The student will learn how to design research, collect literature and data, interpretation of research findings, write research, preparation of the dissertation, and present research on different topics of biodiversity. They will be skilled in samples and data collection and field training based on the modern techniques of biodiversity assessment and conservation.

Important Definitions:

Academic Year:

The academic year consists of two main semesters and a summer semester, if available.

Semester:

The semester is a term of no less than 15 weeks of instruction in which courses are taught, not including the registration and final examination periods.

Academic Level:

The academic level refers to the study level. The required levels for graduation are four or more according to recognized study plans.

Study Plan:

The study plan is a group of required, elective, and core courses that, their credit hours form the graduation requirements, students need to successfully pass in order to obtain the degree in the relevant specialization.

Course:

The course is a subject of study within a certain academic level of the approved degree plan in each major. Each course has a number, code, and detailed specifications description which distinguishes it and its content from other courses within a level. A portfolio on each course is kept in the corresponding department

for the purpose of follow-up, evaluation, and development. Some courses may have requirements, prerequisites, or concurrent requirements.

Academic Probation:

Academic probation is a notification given to a student with a cumulative GPA below the minimum acceptable limit as explained in these regulations.

Class Work Score:

Classwork score is the score that reflects the student's standing during a semester according to his/her performance in the examinations, research, and other activities related to a particular course.

Final Examination:

The final examination is an examination in the course to be conducted once at the end of every semester.

Final Examination Score:

The final examination score attained by the student in each course on the final 6 | Page examination.

Final Score:

The final score is the total of the class work score plus the final examination score calculated for each course out of a total grade of 100.

Course Grade:

The course grade is a description of the percentage or alphabetical letter for the final grade the student obtained in a course.

Incomplete Grade:

The incomplete grade is a temporary provisional grade assigned for each course in which a student fails to complete the requirements by the required date. This is indicated in the student's academic record with the letter grade — "IC".

In Progress Grade:

The In-progress grade is a provisional grade assigned for each course that requires more than one semester to complete. The letter grade "IP" is assigned in this case.

Semester GPA:

Semester GPA is the total number of quality points the student has achieved, divided by the total credit hours assigned for all the courses the student has taken in any semester. The quality points are calculated by multiplying the credit hours by the grade earned in each course.

Cumulative GPA:

Cumulative GPA is the total number of quality points the student has achieved in all courses he/she has taken since his/her enrollment at the University, divided by the total number of credit hours assigned for these courses.

Graduation Ranking:

Graduation ranking is a description of the assessment of the student's scholastic achievement during the period of his/her study at the University.

Academic Load/Minimum Load:

The academic load is what a student must take in a semester based on his/her GPA, as determined by the University Council.

Services offered to the students.

Admission electronic services:

The Deanship of Postgraduate Studies and Scientific Research has provided a wide range of online services to the candidates applying to its various postgraduate study programs on its official website <https://www.ut.edu.sa/ar/Deanship/graduate-studies/Pages/default.aspx> including:

1. The deanship website is on the X platform.
2. Steps for signing in to apply to the programs.
3. Electronic payment system.
4. Introducing the paid M.Sc. programs.
5. Inquiry for the academic university number.
6. The support and help system for postgraduate students.
7. The admission portal.
8. The deanship contacts information.

Important Guides:

1. User Guide for the Electronic Payment System.
2. Guide to Writing Scientific Papers and Projects.
3. User guide for depositing scientific papers at Tabuk University on the ProQuest platform.
4. Announcement of the Procedures Matrix for Academic Movements in Graduate Studies
5. Guide to Writing a Table of Contents (Index) Electronically for Scientific Theses and Research Projects.
6. Guide for Admission to Regular and Paid Master's Programs for the Academic Year 1446 AH.
7. Guide to Using the Plagiarism Detection Software
8. Guide to Steps for Verifying Journal Rankings in the Web of Science Database
9. Guide to the steps for verifying journal rankings in the Scopus database. (Scopus)
10. A guide on how to identify pirated journals.
11. Guide to Using Google Scholar (Google Scholar)
12. Guide to creating a researcher profile in the Web of Science database and linking it to an ORCID account.
13. Guide to Establishing Directed Research Groups
14. Guide to Using the Infrastructure Platform
15. The researcher's journey.

16. Approved research groups
17. Guidelines for Purchasing Equipment for Funded Projects
18. Guide to Establishing Directed Research Groups (Second Edition).
Funding pathway.

Learning Resources, Facilities, and Equipment:

Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references, and other resource materials, including electronic and web-based resources, etc.)

1. Information center for the content of information that is related to the course .
2. Through a reading of available bulletins, periodicals, journals, and books.
3. Using SDL - Committees are formed to take care of the requirements and facilities in the library, and classrooms.
4. Updating libraries is an ongoing process - Examination of book forms and references for each course to determine the appropriateness of the book for course topics by the relevant staff member – how recent - (coverage).
5. Evaluation of staff member books and matches with the contents of the courses prior to their adoption.
6. Using a poll of students in the extent they benefit from the references and sources in the library, and the suitability of the curriculum they study.
7. The department members of various specializations choose books and modern references relevant to the curriculum that suit the students, after grouping and arranging. Then submitted to the department and raised to the college to begin the procurement process.

Facilities and Equipment.

(Library, medical facilities, classrooms, etc.).

- **Classrooms:**

The Department of Biology contains 10 classrooms that are equipped with data show projectors and whiteboards. All classrooms are well-ventilated with good lighting and can accommodate approximately 25 students at a time.

- **Library:**

There is only one library available for students and staff at the main campus. The department implements effective procedures for the management of resources and references needed to support learning processes.

The library has enough resources that are easily accessible and appropriate to the needs of the program and the number of students. In addition, the Saudi electronic library provides appropriate databases and electronic systems for all. This allows the beneficiaries to access information, research materials, and scientific journals from inside or outside the institution .

The timing and the location of the central Library are detailed in the following. Link: <https://www.ut.edu.sa/ar/Deanship/library-affairs/Pages/Library-times.aspx>.

The link to the Saudi digital library with all services offered to students is provided by their academic portal (SDL <https://sdl.edu.sa/training/University.aspx?id=4>).

- **Medical Facilities:**

The University of Tabuk provides medical services to all students and faculty members through the medical services center. In addition to treatment services through general and specialized clinics, the center provides training services to students. The clinics are equipped with the latest equipment and medical supplies.

- **Arrangements to Maintain a Healthy and Safe Environment**

(According to the nature of the program)

1. Students' satisfaction is surveyed on issues of various services, safety facilities, social life, and sporting activities offered on campus. Based on the suggestions presented, most of the comments are responded to.
2. There is a program for implementing safety standards in laboratories, classrooms, offices, and corridors, where all safety devices and safety labels, such as directions and illuminated labels, are required.
3. Awareness seminars are held for students to preserve the environment, security, and safety through the Student Activities Unit and the Community Service Unit.
4. The University's Security and Safety Unit provides security and safety systems to secure facilities.
5. Cameras are available in the facilities for 24 hours.
6. A fire evacuation policy and fire drills are practiced in all locations.
7. First aid is available in all colleges.
8. The college has contingency plans, safety signs, emergency exit signs, and lab safety stickers. All classrooms and lab rooms are of adequate size and have adequate ventilation.

Applying for the Postgraduate Programs:

Applicants' Admission Requirements

According to the executive regulations for graduate studies, which were approved by the university council minutes No (4) for the academic year 1444 on Thursday 18/7/1444 (9/2/2023) and approved by His Excellency the Minister of Education based on No (3) of article 7 of the university regulations, certain criteria must be fulfilled as stated in university affairs council decision No (2/9/1444) on 3/1/1444 .

1. The applicant must be of Saudi nationality.
2. The applicant should have achieved at least a good grade on a university degree.
3. The applicant should have a B.Sc. in Biology or other related fields of study.
4. The applicant must have passed the university aptitude test (minimum 60 degrees).
5. The applicant must have passed one of the approved English language tests (IELTS, TOEFL, or STEP) and obtained a certificate for it.
6. Completing supplementary courses from the bachelor's level in biology or related learning outcomes may be applicable to some applicants to qualify for admission to the master's program in Biodiversity.

Mechanism

The applicant fills out the application form available on the Deanship's website and attaches the documents shown by downloading it, which are:

1. Fill out the application form.
2. A copy of the graduation document.
3. A copy of the academic transcript.
4. Original certificate of good conduct.
5. Two academic recommendations from those who previously taught it (original). 13 | Page 6. A copy of the ID card or family book for female students.
6. Any other documents requested by the department.
7. Other documents that the student deems useful in the comparison procedures and its management.

Admission Postponement:

A student's admission may be postponed with the approval of the relevant department council and the deans of the faculty and graduate studies, provided that the period of postponement does not exceed two academic semesters, and the period of postponement is not counted within the maximum period for obtaining the degree, in accordance with the following procedures:

1. The student wishing to postpone his final acceptance must fill out the form and submit it to the head of the department before the start of the academic year.
2. The form is submitted to the Dean of the Faculty for approval, then the Dean of Graduate Studies for approval and issuance of the postponement decision.
3. The postponement period shall not exceed two semesters, starting from the semester in which the student obtained final admission.
4. If the period exceeds two semesters, the student's admission will be canceled, and he may submit a new application in accordance with the admission conditions at the time of new admission.
5. The student has no right to postpone admission until obtaining the university number.

Procedures to Postpone Admission:

1. Fill out a request form for deferring admission (available on the Deanship website), mentioning the reasons and justifications.
2. The department's office studies the application, and the results are as follows: a. Recommendation for approval from the department head, which includes the meeting number and date, completion of the form, signature from the department head, and then filing to the faculty dean. b. Recommendation to reject the application from the department head, including the meeting number and date, reasons for rejection, completion of the form, signature from the department head, and notification of the student and supervisor.
3. When the faculty dean accepts the application from the department committee, he studies the application and implements the recommendations, and the results are according to the following:
 - a. Recommending approval and signing of the form from the Dean of the Faculty and submitting it to the Deanship of Graduate Studies.
 - b. Recommendation to reject the application and have the form signed by the Dean of the faculty and returned to the department.
 - c. A letter from the dean of the faculty that includes the student's application number and date for the department's office, not the student's basic information. 14 | Page 5.5 Postponing Study With the approval of the relevant department council and the deans of the faculty and graduate studies, the student's study may be postponed according to the following:

1. The student must have passed one or more semesters or completed an appropriate amount of the dissertation.
2. The total period of postponement should not exceed four semesters (two academic years).
3. To submit a postponement, request no less than two weeks before the start of the semester.
4. The postponement period is considered within the maximum period for obtaining the degree.
5. Anyone who wishes to postpone study must fill out the form prepared for this purpose and submit it to the head of the department no less than two weeks before the start of the semester to present it to the department council.
6. Postponement will not be considered effective unless approved by the Deans of the faculty and Graduate Studies.
7. The Deanship of Graduate Studies informs the employer if the student is employed. 5.6 General Provisions Regarding Postponement.
8. The student who postpones is not considered a regular student.
9. After the postponement period ends or when it is interrupted, the student submits a request to a supervisor if the topic of his thesis has been approved before the postponement.
 - i. The supervision of the student officially stops in the event of postponement unless the supervisor agrees to continue supervision.
 - ii. The previous supervisor may change, and another supervisor may be appointed after the end of the postponement period.
 - iii. Postponement shall not be approved except with the approval of the department, faculty, and graduate studies.
 - iv. The postponement must be during the academic period and not after the end of the academic period.

Procedures to Postpone Study

1. The student fills out a request form to postpone a study, stating the reasons and justifications, at least two weeks before the start of the semester, to present it to the department council.
2. The Department Council studies the application and the results are as follows:
 - a. Recommending approval from the department council, including the meeting number, date, and signature from the head of the department, and then submitting it to the faculty dean. 15 | Page
 - b. Recommendation to reject the application from the Department Council, including the session number and date, reasons for rejection, completion of filling out the form, signature from the department head, and informing the student and supervisor.
3. Postponement will not be considered effective unless approved by the Dean of the Faculty and Graduate Studies.
4. The Deanship of Graduate Studies informs the employer of the full-time student.
5. The student who postpones during the postponement period is not considered a regular student.
6. After the end of the postponement period or when it is interrupted, the student submits a request to nominate a supervisor if the topic of his thesis has been approved before the postponement.
7. Supervision of the student stops in the event of postponement unless the supervisor agrees to continue supervision.
8. The previous supervisor may change and another supervisor may be appointed after the end of the postponement period.

9. Postponement shall be subject to the approval of the department, faculty, and the Deanship of Graduate Studies.
10. The postponement must be during the academic period and not after the end of the academic period.

Postponing Study

With the approval of the relevant department council and the deans of the faculty and graduate studies, the student's study may be postponed according to the following.

1. The student must have passed one or more semesters or completed an appropriate amount of the dissertation.
2. The total period of postponement should not exceed four semesters (two academic Years).
3. To submit a postponement, request no less than two weeks before the start of the semester.
4. The postponement period is considered within the maximum period for obtaining the degree .
5. Anyone who wishes to postpone study must fill out the form prepared for this purpose and submit it to the head of the department no less than two weeks before the start of the semester to present it to the department council.
6. Postponement will not be considered effective unless approved by the Deans of the faculty and Graduate Studies.
7. The Deanship of Graduate Studies informs the employer if the student is employed.
8. The student who postpones is not considered a regular student.
9. After the postponement period ends or when it is interrupted, the student submits a request to a supervisor if the topic of his thesis has been approved before the postponement.

General Provisions Regarding Postponement

1. Supervision of the student officially stops in the event of postponement unless the supervisor agrees to continue supervision.
2. The previous supervisor may change and another supervisor may be appointed after the end of the postponement period.
3. Postponement shall not be approved except with the approval of the department, faculty, and graduate studies.
4. The postponement must be during the academic period and not after the end of the academic period.

Procedures to Postpone Study

1. The student fills out a request form to postpone a study, stating the reasons and justifications, at least two weeks before the start of the semester, to present it to the department council.
2. The Department Council studies the application, and the results are as follows:
 - a. Recommending approval from the department council, including the meeting number, date, and signature from the head of the department, and then submitting it to the faculty dean.
 - b. Recommendation to reject the application from the Department Council, including the session number and date, reasons for rejection, completion of filling out the form, signature from the department head, and informing the student and supervisor.
3. Postponement will not be considered effective unless approved by the Dean of the Faculty and Graduate Studies.
4. The Deanship of Graduate Studies informs the employer of the full-time student.
5. The student who postpones during the postponement period is not considered a regular student.

6. After the end of the postponement period or when it is interrupted, the student submits a request to nominate a supervisor if the topic of his thesis has been approved before the postponement.
7. Supervision of the student stops in the event of postponement unless the supervisor agrees to continue supervision.
8. The previous supervisor may change and another supervisor may be appointed after the end of the postponement period.
9. Postponement shall be subject to the approval of the department, faculty, and the Deanship of Graduate Studies.
10. The postponement must be during the academic period and not after the end of the academic period.

Cancel Enrollment in Post-Graduate Studies in the following cases:

The student's enrollment is canceled by a decision of the Council of the Deanship of Biology:

1. If he is accepted into postgraduate studies and does not graduate within the specified period.
2. If he does not pass the supplementary courses.
3. If he withdraws or stops studying for a semester without an acceptable excuse.
4. If it is proven that he is not serious about studying or has neglected any of his academic duties.
5. If his cumulative average falls below a grade of (very good) in two consecutive semesters.
6. If it exceeds the specified postponement opportunities.
7. If he violates academic integrity, whether during the stage of studying the courses or preparing the thesis or commits an act that violates university regulations and traditions.
8. If he does not pass the comprehensive test, if any, after allowing him to repeat it once.
9. If the thesis judging committee decides that it is not suitable for discussion or that it is not accepted after discussion.
10. If he does not obtain the degree within the specified period. 16 | Page
11. Taking into account the cancellation of the registration of those who decide that the thesis is not fit for discussion or is not accepted after discussion.
12. The Council of the Deanship of Graduate Studies issues a decision to cancel the registration of students who meet the paragraphs of cancellation of registration at the end of each semester.

Re-enrollment

In case of necessity, a student whose enrollment has been canceled may be re-enrolled if force majeure circumstances prevent him from continuing his studies if it is accepted by the Department and Faculty Council. Re-enrollment shall be based on the recommendation of the Council of the Deanship of Graduate Studies and a decision of the University Council, considering the following:

1. A student whose registration has been canceled for more than six semesters is treated like a new student.
2. The student whose enrollment has been canceled is six semesters or less. He re-studies some of the courses determined for him by the department and faculty councils and approved by the Council of the Deanship of Graduate Studies. The units he studied are counted within his cumulative average, and the period that the student spent studying before his enrolment was canceled is counted within the period for obtaining the degree. Class.
3. The student whose enrolment has been canceled shall submit a request to the head of the relevant department to re-register, attaching the decision to cancel the enrolment and drafts of the coercive circumstances he experienced.

Transfer

Transfer from another university to the University of Tabuk

A student may be accepted to transfer from another university to the University of Tabuk, based on the recommendation of the department and faculty councils, and the approval of the graduate studies council, taking into account the following:

- The student must satisfy all the conditions set by the department.
- The student must not be dismissed from the university from which he is transferred for any reason. It is permissible to calculate the academic units previously studied according to the following:
- He must not have studied the equivalent units for more than six semesters.
- It must be consistent in subject matter with the requirements of the program to which it is transferred.
- The percentage of these units should not exceed 30% of the units of the program to which the transfer is made. 17 | Page
- His rating in equivalent units should not be less than “Very Good.”
- Equivalent units are not included in the calculation of the cumulative average.
- The equivalency shall be based on the recommendation of the department council to which the course follows, and the approval of the faculty councils and the deanship of graduate studies.

Transfer from one major within the university to another

A student may be transferred from one major to another - within the university - based on the recommendation of the councils of the department he is transferring to and the faculty, and the approval of the graduate studies Council, considering the following:

- The availability of admission conditions for the transferred student, and any other conditions that the department deems necessary.
- It is permissible to count the academic units previously studied at the university if the relevant department deems them identical to the program to which it wants to transfer, and is included in his cumulative average.
- The student must not have had his registration canceled for any of the reasons mentioned above.
- Transfer from one program to another once through the duration to obtain the degree.
- The transition must be submitted no less than a month before the start of the academic semester, the transfer procedures are as follows:
- A request for transfer from one specialty to another is submitted to the head of the relevant scientific department.
- A request for transfer from one department to another is submitted to the Dean of the faculty.
- A request for transfer from one faculty to another is submitted to the Deanship of Graduate Studies.
- A request for a transfer to the University of Tabuk, from another university within or outside the KSA, shall be submitted to the Deanship of Graduate Studies, accompanied by an official transcript from the university where the student previously studied, showing his academic status, the courses he studied and their content, and the number of study units and the evaluation he obtained in each course.

- Anyone who registered for a master's degree with or without a thesis, and was unable to obtain it, may transfer to a diploma in the same specialty (if any), after the recommendation of the Department and faculty councils, and the approval of the Deanship of Graduate Studies Council, in accordance with the rules set by each faculty separately.

Transfer from one program to another

The student has the right to transfer from the Master's program with academic courses and thesis to the Master's program with academic courses and a research project and on the 18 | Page contrary, only once after passing (50%) of the credit hours for each program according to the following:

- Approval of the head of department and the deans of the faculty and graduate studies.
- Not more than six semesters of his regular term have passed.
- The transfer request must be made at least one month before the start of the semester.
- Preparing a study plan for the student with what is left to obtain the degree.

Study System

The Study System:

Study in the Master of Biodiversity Program is based on academic courses, in some specializations of a professional nature, provided that the number of study units is not less than forty-two units of postgraduate courses, including a research project, calculated as a minimum of three units. It should be considered that the master's study plan includes relevant postgraduate courses, avoiding other departments whenever possible. The period prescribed for an attempt to obtain a master's degree is not less than four semesters of study and not more than eight semesters of study, and the final semesters are not counted within this period.

Academic Calendar for Postgraduate Studies

The Deanship of Graduate Studies sets a comprehensive academic calendar, subject registration dates, and other important dates on which the Deanship works. Graduate students are required to review this calendar and work according to it. This calendar is issued at the beginning of each academic year and distributed to graduate students, faculties, and departments at the university.

Supplementary Courses:

The relevant department may stipulate that a student must be accepted into the master's or doctoral levels on passing a number of supplementary courses from the previous stage in a period not exceeding three semesters, taking into account the following:

1. Passing the supplementary course, for the first time with a grade of no less than good.
2. His cumulative average in supplementary courses should not be less than very good.

3. Registration in the postgraduate study program is only completed after passing the supplementary courses. He may register for the postgraduate courses if he has only one or two of the supplementary courses remaining.
4. The time period for passing supplementary courses is not considered within the period specified for obtaining the degree.
5. Supplementary courses are not included in calculating the cumulative GPA for the postgraduate level.
6. It is not required to devote full time to studying supplementary courses, and the rights of the university student.
7. Anyone who is studying supplementary university-level courses will be given a temporary university number through which his semester and cumulative average are calculated, and he has only one or two supplementary courses remaining according to the following:
 - a. These courses do not constitute more than 25% of the supplementary course units.
 - b. His average in the supplementary courses he has passed must not be less than very good.
 - c. To be registered in the next academic year without interruption.
 - d. Those who do not pass the supplementary courses due to compelling circumstances, accepted by the Council of the Deanship of Graduate Studies and recommended by the Department Council, may apply again for admission.

Attendance and Withdrawal from Study:

A regular student must attend lectures and practical lessons. If he/she fails to attend at least 75% (as set by the University Council) of the lectures and practical lessons or the laboratory sessions for each course in an academic semester, he/she will be denied access to the final exam in that course because of his/her absence and he/she will fail the course. His/her grade will be denied (DN).

1. The student may drop all semester courses according to the following: To submit a request for deletion before the final exam.
2. Approval of the Department Council and the Deans of the Faculty and Graduate Studies.
3. This semester should not be considered an additional opportunity.
4. This semester is counted within the postponement period.
5. Students who wish to drop courses must fill out the form and submit it to the head of the department at least five weeks before the start of the final exams to present it to the department.
6. The Deanship of Graduate Studies informs the employer of the deletion if the student is full-time.
7. The student must not have exhausted the postponement period.

Students who miss the final examination will be given zero in the examination, and his/her grade will be calculated based on the attained grades in the semester work. If a student couldn't sit for the final examination in any of the courses during the semester due to a strong excuse, the Faculty Council may, in extreme may, accept his/her excuse and give the student a makeup exam during a period not exceeding the end of next semester. The student will then be given the grade he/she earns based on his/her performance in the makeup exam.

Graduation:

1. A student graduates after successfully completing the graduation requirements.
2. The student shall not graduate unless he has completed the requirements for the academic degree and with a cumulative GPA of no less than (very good).
3. The general assessment of the student's graduation is based on his cumulative average in all requirements for the academic degree (study courses, thesis, or research project).
4. The Deanship of Graduate Studies is responsible for calculating the student's semester and cumulative GPA.
5. Following the recommendation of the relevant department board, the Faculty Council may determine certain additional courses that the student should take to improve his/her cumulative GPA if he/she has passed the required courses, but with a low GPA.
6. The student graduates with a certificate bearing his general grade and cumulative average signed by the Dean of Graduate Studies and the University Director.

Examination System:

Exams are conducted in postgraduate studies courses to obtain a master's degree and grades least "good." are monitored, in accordance with the study and exam regulations issued by the Higher Education Council in its second session held on 6/11/1416 AH, as follows:

1. The student is not considered successful in the course unless he obtains a grade of at least "good."
2. With regard to alternative tests and courses that require more than one semester to be studied, the Council of the Deanship of Graduate Studies takes what it deems appropriate based on the recommendation of the Department Council and the approval of the Faculty Council.
3. After completing all required courses, the master's student must pass a written, oral, and comprehensive examination held by a specialized committee in accordance with rules approved by the University Council based on the recommendation of the Department Council and the approval of the relevant Faculty Council and the Council of the Deanship of Graduate Studies. This examination shall be in the student's main specialization, and the student shall be considered a candidate for the degree if he passes the test the first time. However, if he fails it or part of it, he is given one chance during two semesters. If he fails, his enrollment is canceled.

Final Examinations Procedures:

1. The Faculty Council may set up a committee to coordinate with the departments in organizing the activities related to the final examination. The committee's role includes reviewing mark sheets and submitting them to the relevant committee within three days from the examination date of any course.
2. The Faculty Council applies strict confidentiality in the final examination procedures.

3. A course coordinator prepares examination questions. However, if the need arises, the Faculty Council may assign another instructor to do the exam based on the recommendation of the head of the department.
4. The instructor, who marks the final exam and records the marks obtained by students on the designated grades record sheets, signs his name on the record sheets and then the head of the department ratifies them.
5. No student is to be given more than two examinations in one day. The University Council may allow for exceptions to this rule.
6. No student will be allowed to sit for a final examination after the lapse of 30 minutes from the beginning of the examination. Also, no student will be allowed to leave the examination venue less than 30 minutes after the beginning of the examination.
7. Cheating, or attempting to cheat, or violating instructions and examination regulations, shall render the offender subject to punishment in accordance with the Student Disciplinary Rules set by the University Council.
8. If necessary, the relevant Faculty Council may agree to remark the examination papers within a period not exceeding the beginning of the next term examinations.

Remarking on the Exam:

1. The student may submit an official appeal for remarking to the head of the department offering the course of the relevant final exam. The head of the department will then forward the request to the Faculty Council.
2. The student, who has applied previously for a remarking and it has been proved that his/her appeal was false, is not allowed to apply for a remarking again.
3. The student is allowed to apply for no more than one-course examination paper remarking per semester.
4. A form is specially designed for this purpose in addition to the following information (student name and ID, course code and titles, group number, semester date, teacher's name, date of the test, remarking justifications, and the signature of the student,...).
5. In case of a positive reply, the Faculty Council will form a committee of at least three faculty members to review the exam papers and then the committee will report this to the Faculty Council for approval upon which the decision of the council is final.

Calculating Grades:

The obtained grades in each course are calculated as follows:

Percentage	Grade	Grade Code	GPA (out of 5.00)	GPA (out of 4.00)
95-100	Exceptional	A ⁺	5.00	4.00
90- less than 95	Excellent	A	4.75	3.75
85- less than 90	Superior	B ⁺	4.50	3.50
80- less than 85	Very good	B	4.00	3.00
75 -less than 80	Above average	C ⁺	3.50	2.50
70- less than 75	Good	C	3.00	2.00
65- less than 70	High pass	D ⁺	2.50	1.50
60- less than 65	Pass	D	2.00	1.00
Less than 60	Fail	F	1.00	0.00

Based on the Cumulative Grade Point Average achieved by a graduating student, his/her graduation rank is assigned to one of the following levels:

No	Level	GPA (out of 5.00)	GPA (out of 4.00)
1	Excellent	4.50 – 5.00	3.50 – 4.00
2	Very good	3.75 – less than 4.50	2.75 – less than 3.50
3	Good	2.75 – less than 3.75	1.75 – less than 2.75
4	Pass	2.00 – less than 2.75	1.00 – less than 1.75

Degree Awarded:

First honors will be granted to graduating students who achieve a cumulative GPA of (4.75) - (5.00) out of (5.00). Second honors will be granted to graduating students who achieve a cumulative GPA of (4.25) - less than (4.75) out of (5.00). The following are required to obtain first or second honors:

1. The student must not have failed any course he studied at the university or at another university.
2. The student must have completed the graduation requirements in a maximum period of four years.
3. The student must have studied at least 60% of the graduation requirements at the university from which he will graduate.

The Prescribed Period for Obtaining a master's degree in Biodiversity:

Article Thirty-Six of the Unified Regulations for Postgraduate Studies in Universities stipulates that the prescribed period for obtaining a master's degree is not less than four semesters, and not more than eight semesters. Classroom classes are not counted within this period.

Research Projects:

Research projects are academic studies prepared in accordance with the regulations regulating them. It is the product of the research required to complete the stage if the study at the master's stage is based primarily on academic courses, including a research project to obtain the degree. It is important to prepare it according to a scientific plan and an original curriculum, under the scientific supervision of specialists, and to demonstrate the student's ability to use research methods, organize information, and compile it in a correct language free of grammatical, spelling, and typographical errors.

Electronic Services:

Electronic Gate

(<https://myut.ut.edu.sa>)

The unified platform for students to view the academic schedule, completed and remaining study plan materials, student academic status, student grades, and grades, a range of academic movements that they can perform through the portal, including academic advising.

Department Website

(https://www.ut.edu.sa/ar/Faculties/science/Biology_department/Pages/default.aspx) The site contains a number of guides and links that will help the students.

E-learning Platform – Blackboard

The platform through which the student studies the subjects presented in his study plan in the distance education system. In it, all the student's attendance materials are recorded as well, and therefore to provide an integrated and more efficient education, through which the student can submit assignments and costs, communicate with the course instructor, and obtain the latest updates and announcements through the unified advertisement platform, as well as access to the content of the course that the faculty member shares, And get advice through office hours electronically. An email is created for all university employees (students, employees, and faculty members) and it is the official means of communication in any affairs of the educational institution, through which alerts, instructions, activities, and events are published. The beneficiary needs to activate the email.

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