

SELF ASSESSMENT REPORT



Submitted to

Directorate of Quality Assurance (DQA)

Khushal Khan Khattak University, Karak

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DEPARTMENT OF ZOOLOGY
KHUSHAL KHAN KHATTAK UNIVERSITY, KARAK
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Preface

Ever since its establishment in 2012 Khushal Khan Khattak University Karak has become one of the prestigious institutions of the country and is well regarded internationally also. The Department of Zoology is one of the newer departments focused on contributing committed and knowledgeable scholars to the public and private sectors.

This document includes a report of self-assessment of the Bachelor of Science (BS) in Zoology Program. The report has been developed by the program team (PT) under the supervision of the quality enhancement cell (QEC) of this institution. Hopefully, this report will contribute in pointing out the department's strength and weaknesses so that actions may be taken to improve the set up.

The Program Team (PTs) consists of the following members:

- 1. Dr. Abdul Aziz** (Assistance Professor)
- 2. Zuhra Saifullah** (Lecturer)
- 3. Amina Fayyaz** (Lecturer)

Executive Summary

Department: Zoology

Program: BS-Zoology

The Department of Zoology was established in September 2019. Currently, the department has almost 178 students and three (04) visiting faculty members. To enhance the quality of education, QEC Cell of the university has established a QEC team comprising of Dr. Abdul Aziz, Zuhra Saifullah and Amina Fayyaz. The QEC cell has carried out the assessment of the department against the standards and criterion provided by HEC Quality Enhancement Cell. This assessment is carried out for Fall Semester 2022.

Major Findings

1. Four batches of BS-Zoology i.e. (F2019-S2023), (F2020-S2024), (F2021-S2025) and (F2022-S2026) are being enrolled successfully.
2. A total of 178 students are currently enrolled in these programs.
3. Frequency of holding the BOS meetings is good which shows improvements in the schemes of program from time to time.
4. The curriculum highlights the scheme of studies as per HEC QEC assessment manual.
5. The department follows the rules and regulations for admission, enrolment, migration provided by the University.
6. The department has four MPhil-qualified faculty members in the Zoology discipline on visiting bases.
7. The qualification and specialization of faculty members are not sufficient to teach all the courses, plan, modify and update the curricula and the department needs more faculties in multiple areas of Zoology.
8. The majority of faculty members are not satisfied with the facilities provided by the University.
9. The institution facilities, e.g., library, classrooms, offices, and e-learning, are insufficient at this stage.
10. The department needs a fast internet facility for faculty and students, which is currently weak.
11. Well-equipped Research Laboratories are needed for the students to perform experimental work.
12. The classrooms of the department need effective techniques of learning like the use of multimedia. Classrooms must be the platform for open discussion and presentations.

13. The Department of Zoology needs a computer lab for students.
14. Students of the department need Library.
15. Sufficient space must be provided for the research labs.

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Introduction

The Department of Zoology, Khushal Khan Khattak University, Karak has been established in September 2019. The Department of Zoology aims at promoting an integral understanding of utilization of Animals and to explore underlying mechanisms for promoting an eco-friendly environment. Particular emphasis is laid on focusing the application of current advances in Genomics, Animal Physiology/Anatomy, Ecology, DNA recombinant Technology, Sequencing Methods, Animal Tissue and Cell Culture, Gene Transformation, Genetic Engineering, Applied Zoology, Phyto-Medicines, GMOs, Endocrine system, and effect of microorganisms on environment. The Department strives at its best to boost the diverse applications of animals and their products and to tackle emerging issues of the rapidly growing population. Currently, the Department of Zoology is offering BS program (4 years).

Criterion 1: Program mission, objectives and outcomes

Standard 1-1:

The program must have measurable objectives to support Mission

Vision:

Our vision is to conduct innovative research and teaching on the patterns and processes of life with a focus on Animals, human beings and their environments.

Mission:

Our mission is to foster an environment of excellence by attracting and supporting the outstanding students, faculty and staff needed to sustain our vision. We focus on the patterns and processes that enable predictive understanding of animals and their environments at local, regional, and global scales, leading to strengths in the areas of ecology, evolution, and systematics.

Objectives:

The main objective of developing and launching this department is to develop human resource in the discipline of Zoology to achieve sustainable development through appropriate education and training.

Standard 1-2:

The program must have documented outcomes for graduating students. It must be demonstrated that the outcomes support the program objectives and that graduating students are capable of performing these outcomes.

Learning Outcomes:

Upon successful completion of the degree, students will be able to:

1. Have exposure to the cutting edge technologies in the field of Zoology.
2. Have complete knowledge and technical skills pertaining to the Living organisms.
3. Get trained in all areas of the Animal sciences as per the curriculum of BS Zoology.
4. Be aware about the social and environmental issues regarding animals and significance of the Animals and their significance to the national economy.

Standard 1-3:

The results of the program's assessment and the extent to which they are used to improve the program must be documented.

The sample of program's assessment result is given in Annexure B.

Standard 1-4:

The department must assess its overall performance periodically using quantifiable measures

The strength of the present admitted students is as follows:

S.No.	Semester	Number of Students
1.	2 nd	42 students
2.	4 th	50 students
3.	6 th	48 students
4.	8 th	38 students

Based on the above data, we observed that the student's strength will increase in the future. This is due to the following two main reasons

A: Emerging and presently demanded field

B: The University is situated in natural resources zone

Criterion 2: Curriculum Design and Organization

Standard 2-1:

The curriculum must be consistent and supports the program's documented objectives.

A: Degree Title: BS Zoology

The curriculum for BS in Zoology has been designed by the faculty members of the department. The curriculum and course contents have been shared with Zoology experts in the national

universities. Valuable suggestions put by experts were considered and new courses have been added initially.

B: Definition of Credit Hour:

A “CREDIT HOUR” is the unit of measuring educational credit, usually based on the number of classroom hours per week throughout a term.

C: Degree Plan

The Department of Zoology offers only BS Zoology.

Name of Degree	Pre-requisites
BS Zoology	Intermediate (Pre – Medical)/A Levels or equivalent (12 years of education) with the minimum of 45% marks

Semester-wise Course Break up:

Semester	Course code	Course Title	Credit. Hrs	PR/CR*
1st	ENG101	English-I: Functional English	3(3+0)	None
	RS101	Islamic Studies	2(2+0)	None
	MATH100	Mathematics-I	3(3+0)	None
	BOT101	Botany-I (Diversity of Plants)	3(2+1)	None
	CHEM101	Chemistry-I (Basic Inorganic Chemistry-I)	3(2+1)	None
	ZOO101	Principles of Animal Life-I	4(3+1)	None
	Total Credit Hours Per Semester		18	
2nd	ENG102	English-II: Communication Skills	3(3+0)	None
	PS101	Pak Studies	2(2+0)	None
	ZOO103	Biostatistics	3(2+1)	None
	BOT102	Botany-II (Systematics Anatomy and Development)	3(2+1)	None

	CHEM122	Chemistry-II (Basic Organic Chemistry-I)	3(2+1)	None
	ZOO102	Principles of Animal Life-II	4(3+1)	None
	Total Credit Hours Per Semester		18	
3rd	ENG211	English-III, Technical writing and presentation skills	3(3+0)	None
	CS101	Introduction to Computer	3(3+0)	None
	BOT201	Botany-III(Cell Biology Genetics and Evolution)	3(2+1)	None
	CHEM233	Basic Physical Chemistry-I	3(2+1)	None
	ZOO211	Animal Diversity: Invertebrates	4(3+1)	ZOO101,ZOO102
	Total Credit Hours Per Semester		16	
4th	ENG212	English-IV	3(3+0)	None
	BOT213	Botany-IV(Plant Physiology and Ecology)	3(2+1)	None
	CHEM214	Basic Organic Chemistry-II	3(2+1)	None
	ZOO212	Animal Diversity: Chordates	4(3+1)	ZOO101,ZOO102, ZOO211
	ZOO213	Animal Form & Function-I	4(3+1)	None
	Total Credit Hours Per Semester		17	

Semester	Course code	Course Title	Credit. Hrs	PR/CR*
5th	ZOO320	Animal Form & Function-II	4(3+1)	None
	ZOO321	General Biochemistry	4(3+1)	None
	ZOO322	Cell & Mol: Biology	4(3+1)	None
	ZOO323	Physiology	4(3+1)	None
	ZOO324	Wild Life	2(2+0)	None
	Total Credit Hours Per Semester		18	None

6 th	ZOO325	Biological Techniques	3(2+1)	None
	ZOO326	Evolution & Principles of Systematics	3(2+1)	None
	ZOO327	Developmental Biology	4(3+1)	ZOO320, ZOO321, ZOO322, ZOO323
	ZOO328	Genetics	4(3+1)	ZOO322
	ZOO329	Animal Behavior	2(2+0)	None
	Total Credit Hours Per Semester		16	
7 th	ZOO431	Environmental Biology	4(3+1)	ZOO325, ZOO326, ZOO327, ZOO328
	ZOO432	Zoogeography and Paleontology	3(2+1)	None
	ZOO433	Synopsis and Research Methodology	2(2+0)	None
	ZOO487/ ZOO476/ ZOO458/ ZOO435	Parasitology -I/Ichthyology- I/Entomology- I/Thesis/Research Project/Internship	3(2+1)/(0 +3)	None
	ZOO457	Endocrinology	3(2+1)	None
	Total Credit Hours Per Semester		15	
8 th	ZOO434	Bioinformatics	4(3+1)	None
	ZOO449	Biotechnology	3(2+1)	None
	ZOO456	Economic Zoology	2(2+0)	ZOO433, ZOO431, ZOO487, ZOO476, ZOO458, ZOO435
	ZOO472	General Microbiology	3(2+1)/	None
	ZOO488/Z OO477/ZO O459/ZOO 436	Parasitology-II/Ichthyology- II/Entomology -II/Thesis/Research Project/Internship	3(2+1)/(0+ 3)	None
	Total Credit Hours Per Semester		15	

	Total Credit Hours of the Programme	133	
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List of Elective Courses:

Course codes	Electives	Credit. Hrs	PR / CR
ZOO437	Animal Adaptations		
ZOO438	Animal Behavior		
ZOO439	Animal Communication		
ZOO440	Animal Pests and Disease Producing Organisms		
ZOO441	Aquaculture		
ZOO442	Arachnology		
ZOO443	Behavioral Ecology		
ZOO444	Biochemistry of Drug Action		
ZOO445	Biodiversity and Wildlife		
ZOO446	Biodiversity of Inland and Terrestrial Molluscs		
ZOO447	Biology and Control of Vertebrate Pests		
ZOO448	Biomedical Technology		
ZOO449	Biotechnology		
ZOO450	Biotechnology in Aquaculture		
ZOO451	Cancer Biology		
ZOO452	Clinical Biochemistry		
ZOO453	Comparative Developmental Biology		
ZOO454	Conservation Biology		
ZOO455	Ecological Genetics		
ZOO456	Economic Zoology		
ZOO457	Endocrinology		
ZOO458	Entomology-I (Morphology, Physiology and Ecology)		
ZOO459	Entomology -II(Classification of Insects and Pest Management)		

ZOO460	Environmental Issues		
ZOO461	Environmental Physiology		
ZOO462	Environmental Pollution		
ZOO463	Environmental Toxicology		
ZOO464	Fish Bioenergetics		
ZOO465	Fish Culture		
ZOO466	Fish Ecology		
ZOO467	Fish Endocrinology		
ZOO468	Fish Health Management		
ZOO469	Fish Feeding Management		
ZOO470	Fish Physiology and Breeding		
ZOO471	Fundamentals of Microbiology		
ZOO472	General Microbiology		
ZOO473	Helminthology and Host –Parasite Relationship		
ZOO474	Hematology		
ZOO475	Herpetology		
ZOO476	Ichthyology –I		
ZOO477	Ichthyology-II		
ZOO478	Insect Biochemistry and Physiology		
ZOO479	Immunology		
ZOO480	Insect Pathology		
ZOO481	Limnology		
ZOO482	Mammology		
ZOO483	Microbiology and Biotechnology		
ZOO484	Molecular Biology		
ZOO485	Molecular Genetics		
ZOO486	Orinthology		
ZOO487	Parasitology-I		
ZOO488	Parasitology-II		
ZOO489	Population Biology		

ZOO490	Physiology of Coordination		
ZOO491	Reproductive Biology		
ZOO492	Radiation Biology		
ZOO493	Techniques in Fisheries Research		
ZOO494	Vector Biology		
ZOO495	Veterinary and Wildlife Parasitology		
ZOO496	Wildlife Parasitology		
ZOO497	Zoological Techniques		

Standard 2-2:

Theoretical background, problems analysis and solution design must be stressed within the program's core material.

Theoretical background	<ul style="list-style-type: none"> • Animal Behavior • Animal Communication • Animal Pests and Disease Producing Organisms • Aquaculture • Biodiversity and Wildlife • Biodiversity of Inland and Terrestrial Molluscs • Biology and Control of Vertebrate Pests • Biotechnology in Aquaculture
Problem analysis	<ul style="list-style-type: none"> • Zoological Techniques • Radiation Biology • Techniques in Fisheries Research • DNA extraction • Gel electrophoresis
Solution Design	<ul style="list-style-type: none"> • Labs • Research projects

Standard 2-3:

The Curriculum must satisfy the core requirements for the program as specified by the respective accreditation body.

The curriculum is divided into the following groups regarding credit hours.

Program	Arts & Humanities	Botany	Social Sciences	Maths & Basic Sciences	Elective courses	Others
BS Zoology	13 Cr. Hrs	98Cr. Hrs	Nil	18 Cr. Hrs	6 Cr. Hrs parts of Elective courses	Nil

Standard 2-4:

The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body.

This standard is closely similar to that of above standard 2-3. Both have same requirements and credit hour distribution. For this purpose, we must be concerned about the above standard.

Standard 2-5:

The curriculum must satisfy general education, arts and professional and other discipline requirements for the program as specified by the respective accreditation body.

The detail is given in table 2.1

S. No	Subjects	Remarks
1	Arts and humanities	Satisfactory
2	Basic sciences	Satisfactory
3	Tutorial	Satisfactory
4	Seminars	Satisfactory

Standard 2-6:

Information technology component of the curriculum must be integrated throughout the program

Information technology is very important for education nowadays. Latest technology makes the education updated and distance learning too. Technology is an emerging tool in education. Zoology department has the following subject of Information technology.

S.No	IT Courses	Credit Hours
1	Introduction to Computer	03

Standard 2-7:

Oral and written communication skills of the student must be developed and applied in the program.

Oral and written communication is very important in Zoology. For the improvement of this technique some weekly seminars are arranged in the department of Zoology. However, some subjects approved by the Departmental Board of Study regarding the improvement of oral and written communication skills are mentioned in the following table:

S.No	Subjects for oral written communication skills	Credit hour
1	ENGLISH-I (Functional English)	03
2	ENGLISH-II (Communication Skills)	03
3	ENGLISH-III (Technical Report, Writing & Presentation Skill)	03
4	ENGLISH IV	03

Criteria 3.**Laboratories and Computer Facilities**

Currently department has no laboratory. Students of Zoology use Molecular Biology Laboratory of Bioinformatics Departments, as the department is in the initial phase so the establishment of the labs is being planned.

Criteria 4. Student Support and Guidance

Khushal Khan Khattak University, Karak, encourages students in different curricular and co-curricular activities including sports and participation in literary and cultural societies. Activities are going on in all 08 societies. The names of the societies are as follows

1. Blood donor and medical society
2. Volunteer and social work society
3. Sports and Hiking society
4. Literary society
5. Art and culture society
6. Female student's society
7. Religious affairs society
8. Character building society

Department of Zoology appreciates the healthy co-curricular activities arranged by and for the student to heighten their talent in every field of life. The tutorial classes are the part of the attempt to counsel the students in their ethical and social problems which can affect their personality. The faculty members of the department help the students regarding scholarships, career opportunities and counseling of students

Standard 4-1:

Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner.

- Subjects are weekly distributed to cover each topic. Weekly distribution is very effective technique in course completion
- Subjects are distributed in such a way that every subject is taught by subject expert faculty.
- Elective courses are designed according to the industry needs and related to the field of interest of individual student.
- Major courses are taught in applied side.
- Proper time has been arranged for laboratory work.

Standard 4-2:

Courses in the major must be structured to ensure effective Interaction between students, faculty and teaching assistants.

Before commencement of semester, in the meeting chaired by HoD, distribution of the major subjects and the work load among the faculty members is distributed.

- The subjects are distributed on basis of mutual understanding and the interest of faculty members.
- The classroom environment is very suitable for learning as the students are treated politely and encouraged to ask questions during classes. They are also provided with guidance and supervision during office time when required.
- Students are strongly involved in discussion and research ideas.
- Students and faculty members are interacted with each other according to course discussions, latest technology and research.
- Proper time has been arranged for lab in which students and faculty have enough time to discuss ideas.
- Students are encouraged to come to the offices for discussion and for solving their problems regarding the research.

Standard 4-3:

Guidance on how to complete the program must be available to all students and access to qualified advising must be available to make course decision and career choices.

When the student gets admission at the university, all program requirements are communicated to them through prospectus. For full time students' affairs and matters, a coordinator is present at the department to facilitate their issues. Further, it is ensured by the coordinator that students' enrollment is made properly according to program's requirements.

Additionally, tutorial classes have been started on weekly basis to provide academic advising for the students.

Criterion 5: Process Control

Standard 5-1:

The process by which students are admitted to the program must be based on quantities criteria and clearly documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

1. A candidate interested in admission to a degree program shall make an application for admission in response to an advertisement by the university, on a prescribed admission form issued by the

University within the specified dates. Attested copies of certificates/testimonials and other required documents should be attached to the application form.

2. A candidate may be required to qualify for the entrance test to be conducted by the Admissions Committee. The admission to BS program will be on merit to be based on academic performance in intermediate and Metric examinations and other factors as may be prescribed by the competent authority.

3. The admission to a degree programme is normally in the month of September for Fall Semester, January for spring and June for Summer.

4. The candidates seeking admission for the first time in any of the degree courses must complete all admission/enrolment requirements within specified dates, failing which may lead to cancellation of the Admission.

5. Any candidate who has been punished (major penalty) by his parent institution/university, for the act of indiscipline and objectionable activities, will not be allowed admission in the University.

6. A student at the time of first admission/enrolment with any communicable disease or mental or physical disability which may stand in the way of his selected field of study may be denied admission.

8. The candidates and their parents have to give an undertaking to the effect that they will abide by the Rules and Regulations of the University and such other instructions as may be issued by the competent authority from time-to-time.

9. Each student has to submit an affidavit not to take part in political activities detrimental to the academic environment of the University.

10. The final authority of admission is with the respective Dean/Head of the Department or the Registrar. The admission committee is a recommendatory body.

11. The admission of candidates will remain provisional unless all University fees are paid and testimonials/documents verified.

5.1.1. Admission to International Students:

The credentials of a foreign student who seeks admission in the University are evaluated in accordance with the general regulations related to admission of foreign students as approved by the Ministry of Foreign Affairs and the Ministry of Education, Government of Pakistan. The applications for admission of foreign nationals should come through their embassies in Islamabad

to Ministry of Education, Government of Pakistan, and to the University. Foreign students will be admitted only after proper verification of their applications and documents by the University.

5.1 Eligibility criteria for admission:

A minimum of 12 years of education:

Intermediate (Pre – Medical), A Levels or equivalent (12 years of education) with minimum 45% marks.

5.2 Documents requirements:

- Matric DMC & Provisional Certificate / Secondary School Certificate
- Intermediate DMC & Provisional Certificate / Higher Secondary School Certificate
- Copy of Computerized National Identity card
- Four Recent Passport Size Photographs- Colored

5.3 Migration Transfer Policy:

A student from other educational institution, who intends to migrate to University, shall meet the following requirements:

- A genuine and plausible reason for migration.
- Production of a certificate of good character from his/her parent institution.
- Production of detailed marks certificate and syllabi of courses he/she studied for equivalence purposes.

5.4 Transfer of Credits:

- Students desiring to transfer their credits, earned at other institutions, will be accepted under the following conditions:
- Credits have been earned from institutions recognized/accredited by HEC.
- Original transcript is produced along with photocopy.
- Course outlines, duly signed by the institute, are produced for evaluation.
- Credits will be acceptable for undergraduate courses passed with at least ‘C’ grade / 56% marks / 2.0 out of 4.0 GP or equivalent and at least ‘B’ at least 60% / 3.0 / 4.0 GP for graduate courses.
- Credits from other institution will be evaluated by the equivalence/evaluation committee on a course-to-course basis with the courses offered by the University.
- Course outlines should match minimum 75% with that of the University.

- Maximum credit equivalent to 40% of the total credits of the degree programme of the University may be accepted.
- Letter grades / grade points of the transferred courses will not be counted towards CGPA of courses of the University.
- The transferred courses will appear in the full transcript of the University.
- Character certificate, from the last attended institution, stating that the student has not been expelled on misconduct, indiscipline, undesirable activities, may be produced.
- Students should not assume that their academic qualifications will allow them transfer of credits till written confirmation has been given.
- In case of acceptance and willingness of the student for admission, he will have to produce a migration certificate from the last attended institution.

5.5 Change of subject and adjustment/refund of fee etc.

- The application for change of subject and adjustment of fee etc. shall be submitted through the respective Heads of Departments to the Registrar of the University.
- The change in subject and adjustment of fee etc. shall be allowed to the student on the following conditions:
- That the admission of the student has been approved by the Vice-Chancellor;
- That the Heads of Departments are agreed to the change and the application is submitted to the University Registrar within 15 days (for semester system) and one month (for annual system) of his / her attending the previous Department subject to the fulfillment of the prescribed criteria for desired department.
- In case of change of subject from one Department to another, all fees etc. shall be adjustable.
- The tuition fees shall be refunded in full if the applicant cancels his/her admission within seven days of the commencement of classes and 50% tuition fee within 15 days after the commencement of classes. No tuition fee will be refunded after 15 days.

Standard 5-2:

The process by which students are registered in the program and monitoring of students' progress to ensure timely completion of the program must be documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

5.6 Student Progress Monitoring Procedure:

Regarding monitoring, at the end of the semester, each teacher shall award letter grades for semester and provide master award list to the Controller of Examinations; who shall prepare copies of the award list, retaining a copy himself and sending one each to the concerned Director / Head, Dean of Faculties and Registrar.

Examination and Evaluation:

Each subjects shall carry 100 marks during a semester. Students shall be assessed for 50% of the grade during the semester and 50% at the end of the semester. Distribution of Marks will be as under:

S.No:	Component	Marks
A	Attendance	05
B	Test, Quiz, Time-constraint, Assignments, Group Assignments, Class participation	15
C	Mid-term	30
D	Final Term	50
Total		100

The University may engage external examiners for the final examinations for quality control purposes. Final examination question papers set by external examiners will be moderated by the teachers concerned. In case the concerned teacher is not available, it can be moderated by Chairperson /Director /HoD or other teacher authorized by the competent authority.

5.7 Enrollment at the Department:

1. All students shall fill the prescribed Registration Form at the beginning of each semester for the courses they will study during that semester and submit the form to the office concerned.
2. At the beginning of each semester, students shall be offered courses of full load (12 or more Credit Hours) but they have the choice to select less courses than the full load. A student registering for less than 12 Credit hours will be a part time student.
3. The enrolment shall be considered incomplete if a student does not make full payment of prescribed fees and submit the prescribed form in the Admission Office.

4. Enrolment and fee payment shall be completed within notified dates unless authority concerned may, under special circumstances, permit a student with late fee to enroll.
5. A student shall enroll himself each semester unless he has completed all the requirements for the degree. In case of non-enrolment in any semester his admission shall stand suspended. The authority may remove suspension from him if he/she applies for regularization. In case, if one fails to enroll for two consecutive semesters, his admission shall be cancelled. Re-admission of such student shall be considered as a fresh admission.
6. When a course, for which a student is enrolled, cannot be offered according to the announced program he/she may take an alternative course. However, this must be done not later than 15 days after the date of enrolment.
7. A student shall be allowed to:
 - a. change a course within 7 days of the commencement of a semester, and
 - b. Withdraw from a course within 4 weeks of the commencement of semester. Withdrawn courses will appear on transcript with letter grade “W”.
 - c. Change his declared specialization / major choice upto 2nd semester for two years Master and 5th semester for Master of 3½ years and Bachelor 4 years after obtaining the advice and approval of the HoD / Dean. A CGPA of 2.00 is required for a change of major.

5.8 Attendance:

1. The educational process at the University depends, to a large extent, on regular classes, make-up classes, laboratory work, in-semester tests, and examinations. Failure to attend any of these can influence academic record, or even lead to dropping from the course, award of “F” grade, or expulsion from the University. A student has to fulfill the following requirements:
2. Students must meet the attendance criterion in every course. Students with less than 75% attendance in theory or practical separately of any course, shall not be allowed to sit in the final examination of that particular course in a semester, provided that the period of absence in the case of participation in co-curricular/sports activities outside Karak and performing umra / hajj, with the permission of the Competent Authority, may not be counted.

3. The Vice Chancellor may condone absence from classes up to 40% of the total lectures delivered.
4. Attendance counting shall start from the date of resumption of classes.
5. If a student remains absent for one week continuously from all classes without any intimation his/her admission would be suspended by the department concerned.
6. If a student fails to pay registration renewal fee, his / her name may be deleted from attendance list and will not be allowed to attend classes.
7. Students shall take the required number of quizzes / examinations, complete assignments / projects and fulfill other evaluation criteria set by the University, In case a student joins a course after it has started, he/she will be responsible for any missed quizzes, assignments, and lectures. The marks in missed quizzes will be zero while makeup tests, assignments, projects, and labs can be arranged in consultation with the teacher / head of department.
8. Leave up to seven days in all degree programs shall be granted by the Chairperson/Director/Head of Department on the recommendation of concerned teachers and 15 days by the Dean in verifiable exceptional cases. Maximum leave shall not exceed 22 days per semester. The production of a medical certificate, in support of leave, shall be compulsory for an ailing student. The student will have to satisfy the Chairperson/Director/Head of Department about the genuineness of his/her request.
9. It is the responsibility of the students to be aware of their attendance status at any given time. Attendance status can be checked from course teacher / Students Service Office / University website.
10. The following marks on the basis of attendance percentage above 75% and class participation may be awarded to a student in the Internal Evaluation result:

Attendance / Participation	Marks
91-100%	5
81-90%	4
76-80%	3
Below 76 %	0

5.9 Number of Subjects:

At the beginning of the semester, the subjects are been identified from Prospectus for each respective semester which are enlisted on the subject list and verified by the Head of the Department. The policy for the number of subjects to be taken by the student is six (18 Credit Hours).

5.10 Summer:

Summer Semester is planned each year, only those subjects are offered which has to be taken as reappear. No regular subject is allowed to take during summer semester. Summer semester is comprised of 8 weeks having lectures on daily basis, only two subjects are allowed to take by the students during summer semester according to Higher Education Commission Regulation.

5.11 Evaluation of Student Progress Monitoring Procedure:

Student Progress Monitoring is carried out by quantifying the final GPA. The department takes different measures if a student failed to achieve the desired CGPA.

Standard 5-3:

The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation, promotion must be consistent with institution mission statement. These processes must be periodically evaluated to ensure that it is meeting with its objectives.

The University follows the following procedure in recruitment of faculty members.

- First of all, posts are advertised in three leading daily newspapers of the region and also uploaded on university website. After the closing date of the advertisement, the establishment section of the university scrutinizes the application form and if there is any deficiency in the application form, the applicant is properly informed to overcome the deficiency in the given time.
- After the proper scrutiny by the scrutiny committee, the university conducts the proper selection board.
- After the selection board the case is brought to the syndicate for approval.
- The candidates selected are informed by office orders, and they have to join in specific time.

Standard 5-4:

The process and procedures used to ensure that teaching and delivery of course material to the students emphasize active learning and that course learning outcomes are met. The process must be periodically evaluated to ensure that it is meeting its objectives.

- Recently the Department of Zoology has conducted first board of study to approve its curriculum in which the courses for BS Zoology program have been finalized as per the HEC criteria.
- Besides the available reference books and course materials, some reference books and course materials have been suggested which will be purchased/arranged for department library.

Standard 5-5:

The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.

5.12 Evaluation of Thesis/Project:

1. Both synopsis and thesis/project report shall have approval of the departmental committee.
2. The thesis/project report shall be evaluated by an External Examiner(s) and Supervisor(s).
3. The student shall give a seminar on his/her thesis/project report before viva-voce examination, where required.
4. The date, time, and venue of examination shall be notified at least one week before the commencement and the faculty and students interested to participate in the oral presentation may be allowed. The notification to this effect may be made by the Head of Department / Chairman / Director of Institute / Controller of Examinations.
5. The Controller of Examinations shall get the thesis/project report evaluated within two months after the date of submission/resubmission of thesis/project report in his Office. Any delay beyond two months shall be brought to the notice of the Vice Chancellor.
6. The thesis/project report shall be evaluated according to the following numerical and letter grades:
 - a. The thesis shall be graded in percentage of marks.
 - b. The marks so awarded shall be converted into letter grades by the prescribed formula, which shall be A+, A, B+, B, C+, C or F (fail), as the case may be. Average grade on the basis of course work and thesis shall then be worked out to calculate the final CGPA.

c. Both the Examiner / Supervisor shall sign the thesis/project report after the Viva-Voce Examination, after making necessary corrections and incorporating therein, any suggestions by the Examiners/Supervisor.

d. Both the Examiner / Supervisor shall sign the result sheet prescribed for this purpose at the end of the examination. The supervisor will submit the result to the Controller of Examinations.

f. In case of disagreement among the Examiner / Supervisor regarding the acceptance of the thesis/project report, it shall be referred to a third External Examiner, appointed by the Vice Chancellor, whose decision shall be final.

g. Thesis evaluation fee will be paid by each student.

5.13 Project / Research and Research Work:

1. The synopsis approved for thesis/project research shall remain valid only for two semesters. The Vice Chancellor may extend this period on case to case basis.

2. A student admitted to the course in partial residence shall undertake research/project work in a laboratory or institute approved by the Board of Advance Studies and Research.

5.14 Failure in Thesis Examination / Submission:

1. If a candidate fails, the thesis/project report examination, he/she may enroll again and submit a revised thesis/project report on payment of the prescribed examination fee but he/she shall not be entitled to resubmit his thesis/project report before the expiry of six months after the date of declaration of the result of the last thesis/project report examination. He/She can avail of this chance only once.

2. If a student fails to submit his project / thesis on or before prescribed date, he/she shall be granted incomplete grade (I).

3. A student who gets an “I” grade in the project/thesis shall register himself again in the next semester by paying the registration fee until the project/thesis is completed.

5.15 Requirement for Award of Degree:

1. It is the responsibility of each student to fulfill the following graduation requirements:

2. The student has earned the requisite credit hours of the degree program.

3. The student's CGPA on the scale of 4.0 is not less than:

a. Bachelor / Master = 2.0

b. M. Phil / M.S. = 2.5

c. Ph. D = 3.0

4. The student has passed all the core, supporting and compulsory courses of the degree program.
5. The student has met his financial and material obligations towards the university and there is nothing outstanding against him.
6. The student produces clearance certificates from all concerned departments and sections.

5.16 Award of Degree:

1. A candidate who passes all the examinations with the prescribed CGPA shall be awarded degree which shall be conferred on him at the subsequent convocation, which is normally held annually.
2. It is mandatory for all students to pay convocation fee and be present at the occasion.
3. The Controller of Examinations will issue Provisional Certificate till issuance of final degree.
4. The character certificate to students will be issued by the Head of the concerned department.

5.17 Project / Research and Research Work:

1. The synopsis approved for thesis / project research shall remain valid only for two semesters. The Vice Chancellor may extend this period on case to case basis.
2. A student admitted to the course in partial residence shall undertake research/project work in a laboratory or institute approved by the Board of Advance Studies and Research.

5.18 Failure in Thesis Examination / Submission:

1. If a candidate fails in the thesis/project report examination, he/she may enroll again and submit a revised thesis/project report on payment of the prescribed examination fee but he/she shall not be entitled to resubmit his thesis/project report before the expiry of six months after the date of declaration of the result of the last thesis/project report examination. He/She can avail of this chance only once.
2. If a student fails to submit his project / thesis on or before prescribed date, he/she shall be granted incomplete grade (I).
3. A student who gets an “I “grade in the project/thesis shall register himself again in the next semester by paying the registration fee until the project/thesis is completed.

Criterion 6:**Faculty****Standard 6-1:**

There must be enough full-time faculty who are committed to the program to provide adequate coverage of the program areas/courses with continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses, plan, modify and update courses and curricula. All faculty members must have a level of competence that would normally be obtained through graduate work in the discipline. The majority of the faculty must hold a Ph.D. in the discipline.

To ensure fully presence of the faculty in all areas of Zoology, qualified faculty is hired by the university as per requirement. The qualification and interests of all the faculty members are according to the courses designed and provided by board of studies. Courses are reviewed during BOS to satisfy the requirements for quality education regulated by HEC.

Faculty qualification and designation is mentioned below.

1. Dr. Abdul Aziz,

Designation: Assistant Professor/Head of Department,

Qualification: MPhil, PhD (Biochemistry/Molecular Biology: Quaid-i-Azam University Islamabad, 2013),

Research Interest: Human Molecular Biology, Gene Identification

Email: abdul.aziz@kku.edu.pk,

2. Ms. Zuhra Saifullah

Designation: Lecturer

Qualification: MPhil Zoology, UOP, Pakistan

3. Ms. Amina Fayyaz

Designation: Lecturer

Qualification: MPhil Zoology, KUST, Pakistan

4. Ms. Sadia Noreen

Designation: Lecturer

Qualification: MPhil Zoology, KUST, Pakistan.

Standard 6-2:

All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place.

The courses are distributed on the basis of relevant expertise and in accordance of existing workload. Faculty members are arranged on the basis of criteria, laid down by HEC.

Currently 2nd and 4th Semesters are in progress of BS Zoology.

Standard 6-3:**Results of the faculty survey:**

- Please refer to Annexure C for Question's detail.

Criterion 7: Institutional Facilities

This criterion describes the facilities provided by institution such as library, classrooms and offices. Several standards are discussed to meet the program objectives through these facilities.

Standard 7-1:

The institution must have the infrastructure to support new trends in learning such as E-learning. Supportive Infrastructure and Facilities in learning:

Khushal Khan Khattak University, Karak, is newly established university but in very short time the University achieved most targets regarding education standard.

- KKKUK has established PERN network of HEC.
- A video conference room is present to facilitate National and international webinars.
- University has PERN internet of 32 MB.

Standard- 7-2:

The library must possess an up-to-date technical collection relevant to the program and must be adequately staffed with professional personnel.

A well-managed central library has been setup at main campus to keep updated the students and faculty members with the latest trends in different Disciplines. A qualified librarian with a well-trained supporting staff is responsible to manage the library in an efficient manner. Approximately 14000 books have been stocked in library.

Library provides support in enhancing the technical knowledge of the students.

Standard- 7-3:

Class-rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

Classrooms are not equipped with multimedia facilities. Additionally, the faculty offices are not equipped with adequate resources to accomplish their job responsibilities in efficient manner.

Criterion 8: Institutional Support

Khushal Khan Khattak University, Karak is making best efforts to provide adequate resources to the faculty, library, and laboratories and computing facilities. The following standards explain these resources.

Standard 8-1:

There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teachers and scholar.

Already discussed in Sections 5-3 and 6-3

Adequate budget is sanctioned each year for research and development, faculty development program, books and research journals for library, to enhance the teachers' and scholars' competency as mentioned below.

Standard 8-2:

There must be an adequate number of high quality graduate students, research assistants and Ph.D. students.

Khushal Khan Khattak University is newly established that is why there is no research assistant in the department but M.Phil. faculty is working on different research projects. BS students are also engaged in different projects.

Standard- 8-3:

Financial resources must be provided to acquire and maintain Library Holdings, laboratories and computing facilities.

Library

- A well-managed central library has been setup having Zoology related books at main campus to keep updated the students and faculty members.

Laboratory

Describe the resources available for the laboratories.

- Currently department has no lab.
- Department still needs research labs.

Computing Facilities

Describe the resources available for computing facilities.

- There is no computer lab in the department.

Summary and Conclusions

The Department of Zoology, Khushal Khan Khattak University, Karak, is a department of higher learning and research. It was established in September 2019 with the aim to explore specific approaches to solve problems and to apply knowledge from different areas of Zoology to independent research projects. The department needs well develop laboratories, research associate and regular faculty. The Department offers admissions in fall semester. The department has recently 178 students in BS Zoology.

It should be a matter of satisfaction to all concerned that the Department has been successful in the pursuit of the aims and objectives for which it was established. The curriculum is designed by the faculty members of the department and has been approved by the Board of Studies, comprising of prominent Zoologists across the country.

The Department of Zoology is in the phase of development and currently require regular faculty and well develop laboratories to plan for MPhil and PhD programs. However, Students are currently not involved in the research projects due to initial stage of the department. The university Examinations and academic are scheduled semester-wise. Tutorial classes are also weekly arranged.

Institutional facilities are measured through labs, library, administration, infrastructure, class rooms and faculty offices. There are some minor short comings and limitation.

The Department of Zoology can be advanced if the following suggestions are fulfilled. The classrooms of the department need effective techniques of learning like use of multimedia. Classrooms must be the platform of open discussion and presentations.

- The department of Zoology needs Labs and computer lab for students.
- Students of the department need Internet facility.
- Students of the department need Library.
- Sufficient space must be provided for the research labs.

Annexure A**Faculty Resumes****Dr. Abdul Aziz**

Name	Abdul Aziz
Personal	Designation: Assistant Professor/Head of Department, Qualification: M.Phil, PhD (Biochemistry/Molecular Biology: Quaid-i-Azam University Islamabad, 2015), Email: abdul.aziz@kkuk.edu.pk .

Ms. Zuhra Saifullah

Name	Ms. Zuhra Saifullah
Personal	Department of Zoology, Khushal Khan Khattak University, opposite Tableeghe markaz district, Karak, Province, Khyber Pakhtunkhwa, Pakistan. Designation: Lecturer Qualification: MPhil Zoology, University of Peshawar

Ms Amina Fayyaz

Name	Ms Amina Fayyaz
Personal	Department of Zoology, Khushal Khan Khattak University, opposite Tableeghe markaz district, Karak, Province, Khyber Pakhtunkhwa, Pakistan. <i>Designation: Lecturer</i> <i>Qualification: MPhil Zoology, Kohat University of Science and Technology, Kohat</i> .

Ms. Sadia Noreen

Name	Ms. Sadia Noreen
Personal	Department of Zoology, Khushal Khan Khattak University, opposite Tableeghe Markaz District, Karak, Province, Khyber Pakhtunkhwa, Pakistan. Designation: Lecturer Qualification: MPhil Zoology, Kohat University of Science and Technology, Kohat.

Ms. Sajida

Name	Ms. Sajida Afzal
Personal	Department of Zoology, Khushal Khan Khattak University, opposite Tableeghe markaz district, Karak, Province, Khyber Pakhtunkhwa, Pakistan. Designation: Lecturer

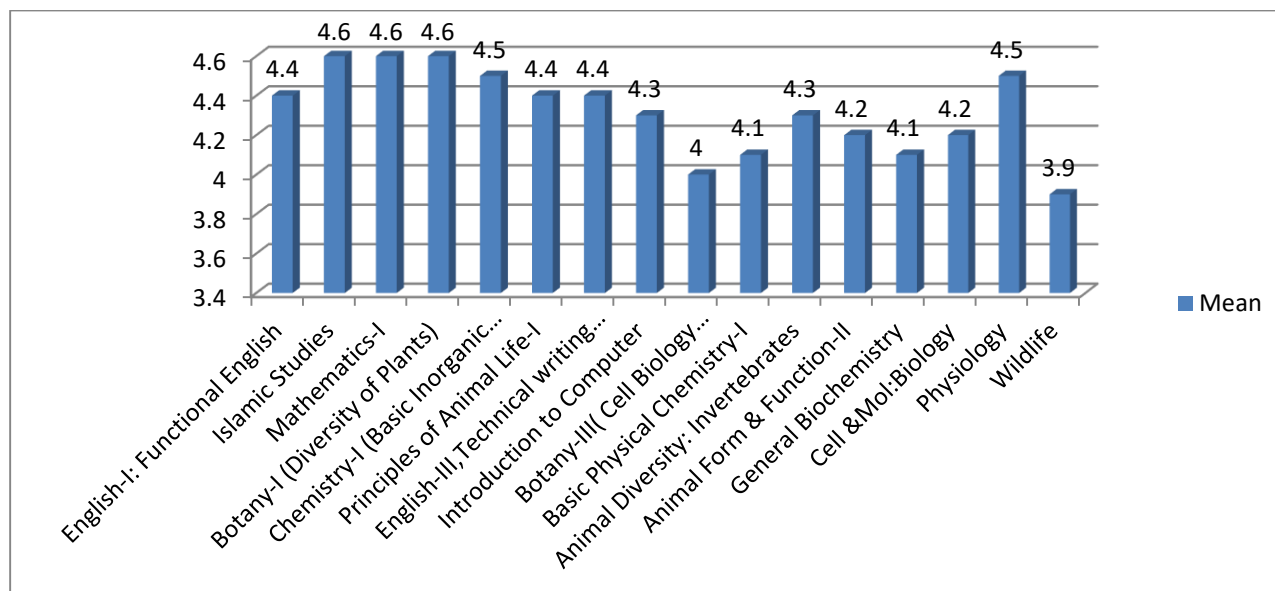
	Qualification: MPhil Zoology, Kohat University of Science and Technology, Kohat.
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Annexure B**Courses Evaluation Survey*****Table***

Course	Code	Mean
English-I: Functional English	ENG101	4.45
Islamic Studies	RS101	4.633333
Mathematics-I	MATH100	4.633333
Botany-I (Diversity of Plants)	BOT101	4.6
Chemistry-I (Basic Inorganic Chemistry-I)	CHEM101	4.533333
Principles of Animal Life-I	ZOO101	4.497143
English-III, Technical writing and presentation skills	ENG211	4.4
Introduction to Computer	CS 101	4.257143
Botany-III(Cell Biology Genetics and Evolution)	BOT211	3.936364
Basic Physical Chemistry-I	CHEM233	4.145455
Animal Diversity: Invertebrates	ZOO211	4.34186
Animal Form & Function-II	ZOO320	4.2
General Biochemistry	ZOO321	4.12963
Cell & Mol: Biology	ZOO322	4.222222
Physiology	ZOO323	4.49
Wildlife	ZOO324	3.846667

Figure

Courses Evaluation Survey



Annexure C

Teachers Evaluation Survey

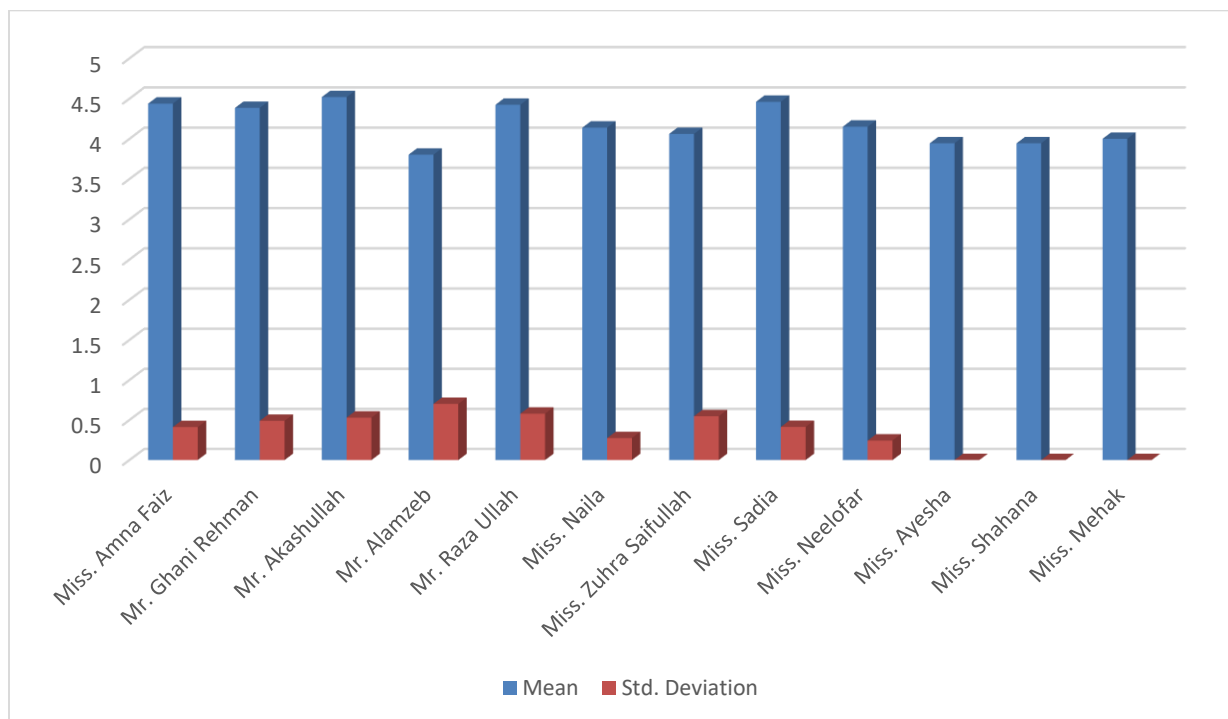
Table

Group	Mean	Std. Deviation
Miss. Amina Fayyaz	4.4378	0.41211
Mr. Ghani Rehman	4.3843	0.48977
Mr. Akashullah	4.5185	0.52983
Mr. Alamzeb	3.803	0.70113
Mr. Raza Ullah	4.4231	0.57937
Miss. Naila	4.1389	0.27499
Miss. Zuhra Saifullah	4.0608	0.54741
Miss. Sadia	4.4603	0.41415
Miss. Sajida Afzal	4.1508	0.24367
Miss. Ayesha	3.9444	0
Miss. Shahana	3.9444	0

Miss. Mehak	4	0
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Figure

Teachers Evaluation Survey



Annexure D

Students Graduating Survey

Table (Serial 1-11)

Groups	N	Sum	Mean	Var
The work in the program is educative.	80	358	4.4	0.35
The program is effective in enhancing team-working abilities.	80	350	4.3	0.36
The program administration is effective in supporting learning.	80	337	4.2	0.75
The program is effective in developing analytical and problem-solving skills.	80	346	4.3	0.42
The program is effective in developing independent thinking.	80	342	4.2	0.70
The program is effective in developing written communication skills.	80	325	4.0	1.04
The program is effective in developing planning abilities.	80	339	4.2	0.68
The objectives of the program have been fully achieved	80	340	4.2	0.44

The contents of curriculum are advanced and meet program objectives	80	339	4.2	0.58
Faculty was able to meet the program objectives	80	341	4.2	0.75
. Environment was conducive for learning	80	333	4.1	0.79

Figure (Serial 1-12)

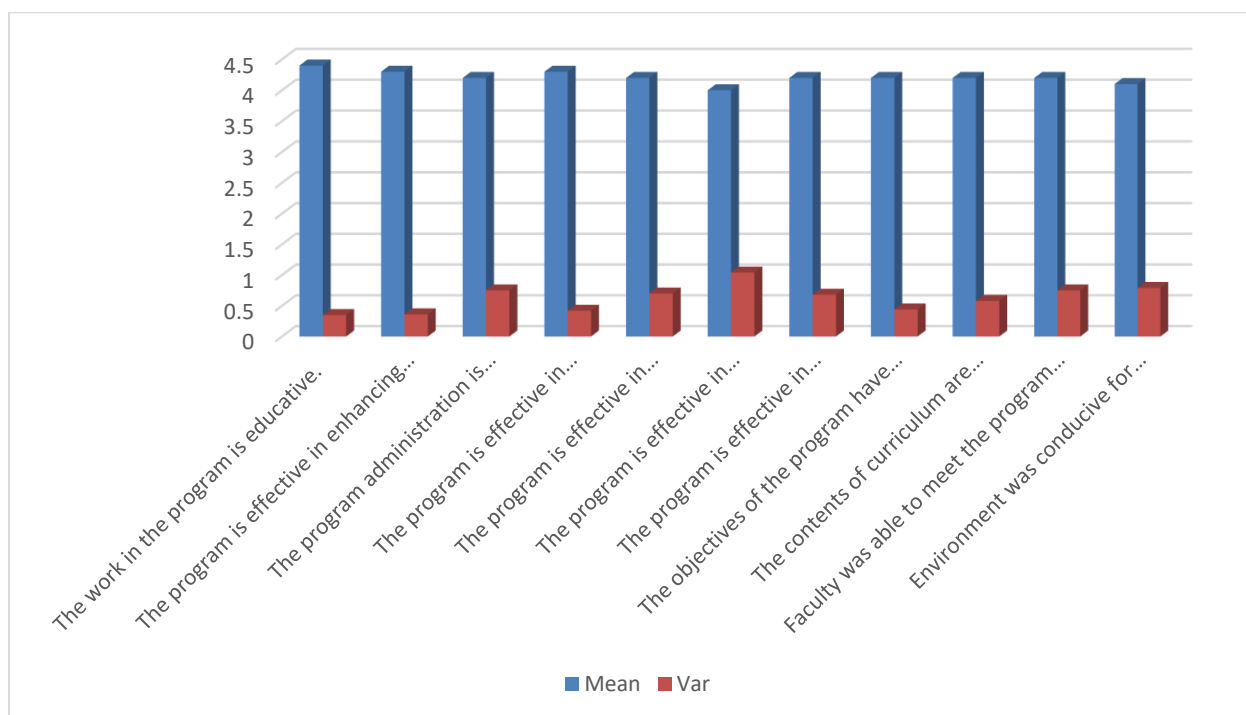


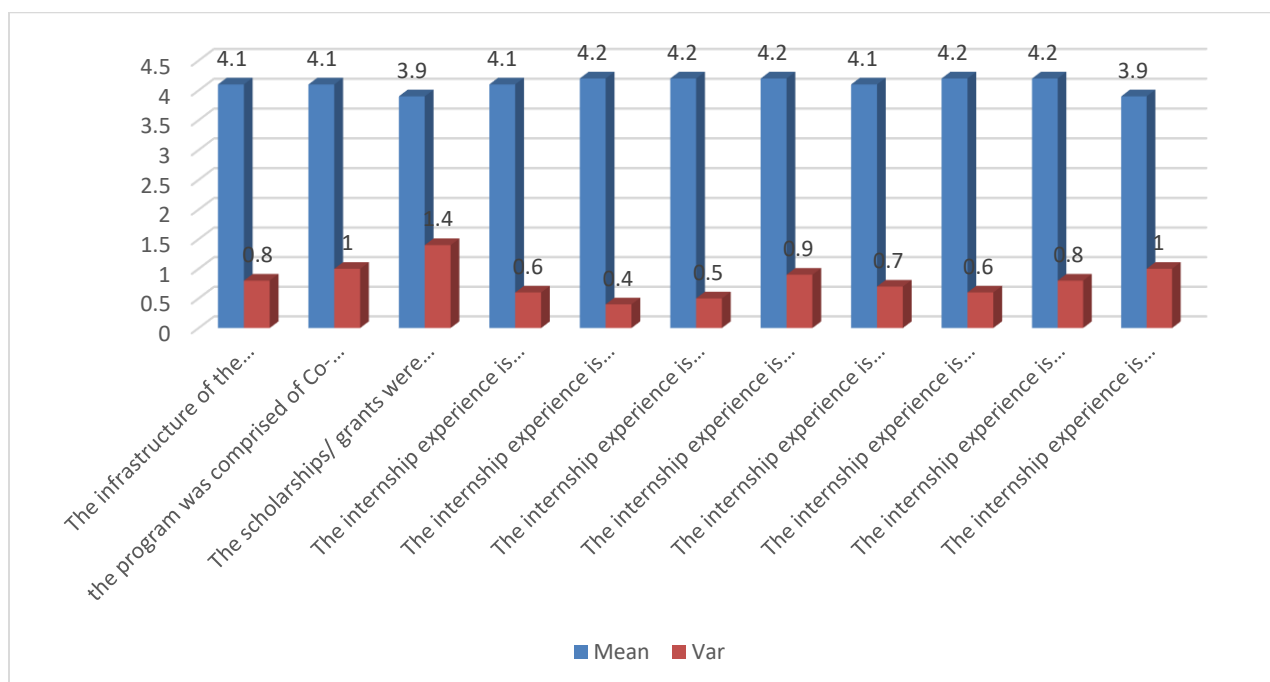
Table (Serial 12-22)

Groups	N	Mean	Var
The infrastructure of the department was good.	80	4.1	0.8
the program was comprised of Co-curricular and extra-curricular activities	80	4.1	1.0
The scholarships/ grants were available to students in case of hardship	80	3.9	1.4
The internship experience is effective in enhancing Ability to work in teams	75	4.1	0.6
The internship experience is effective in enhancing. Independent thinking	74	4.2	0.4
The internship experience is effective in enhancing. Appreciation of ethical Values	75	4.2	0.5
The internship experience is effective in enhancing. Professional development	75	4.2	0.9

The internship experience is effective in enhancing. Time management skills	75	4.1	0.7
The internship experience is effective in enhancing. Judgment	75	4.2	0.6
The internship experience is effective in enhancing. Discipline	75	4.2	0.8
The internship experience is effective in enhancing. The link between theory and practice	75	3.9	1.0

Figure

Evaluation Students Graduating Survey (Serial 12-22)



Annexure E

Faculty Survey

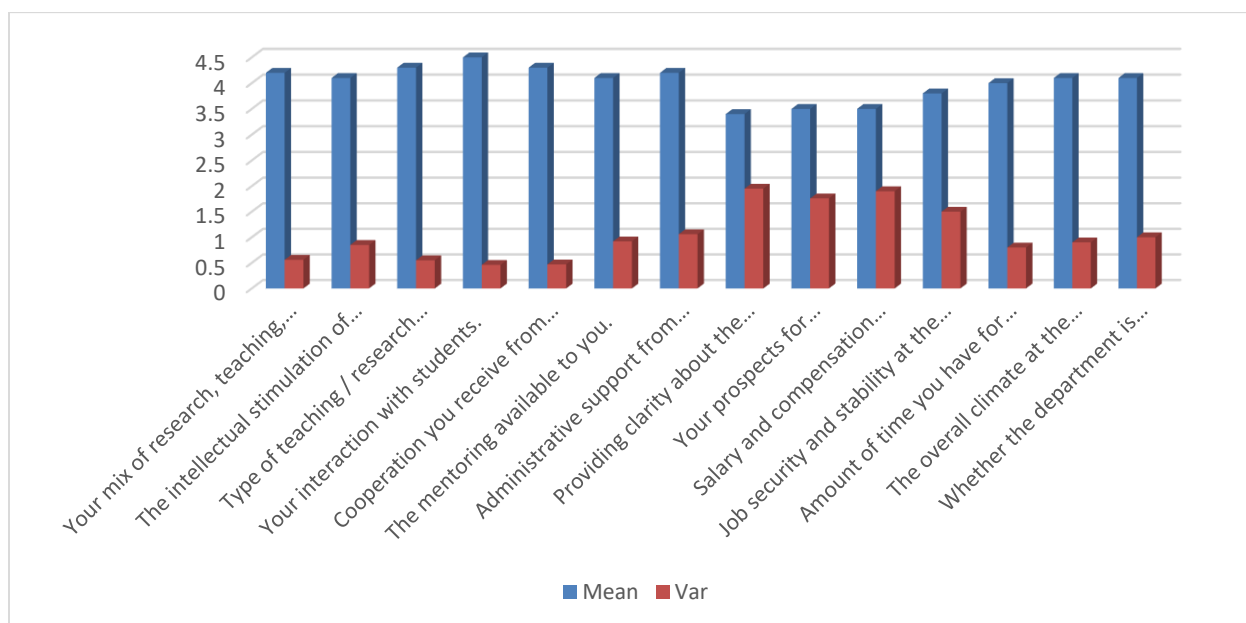
Table

<i>Groups</i>	<i>Count</i>	<i>Mean</i>	<i>Var</i>
<i>Your mix of research, teaching, and community service.</i>	85	4.2	0.56
<i>The intellectual stimulation of your work</i>	85	4.1	0.85
<i>Type of teaching / research you currently do.</i>	85	4.3	0.55
<i>Your interaction with students.</i>	85	4.5	0.46
<i>Cooperation you receive from colleagues.</i>	85	4.3	0.47
<i>The mentoring available to you.</i>	85	4.1	0.92

<i>Administrative support from the department.</i>	85	4.2	1.06
<i>Providing clarity about the faculty promotion process.</i>	85	3.4	1.95
<i>Your prospects for advancement and progress through ranks.</i>	85	3.5	1.76
<i>Salary and compensation package.</i>	85	3.5	1.9
<i>Job security and stability at the department.</i>	85	3.8	1.5
<i>Amount of time you have for yourself and family.</i>	85	4	0.8
<i>The overall climate at the department.</i>	85	4.1	0.9
<i>Whether the department is utilizing your experience and knowledge</i>	85	4.1	1.0

Figure

Evaluation Faculty Survey



Annexure F

Employer Survey

Table

<i>Groups</i>	<i>N</i>	<i>Sum</i>	<i>Mean</i>	<i>Var</i>
I. Knowledge. Math, Science, Humanities, and professional discipline, (if applicable)	9	38	4.3	0.69
I. Knowledge. Problem formulation and solving skills	9	37	4.2	0.36
I. Knowledge. Collecting and analyzing appropriate data	9	37	4.2	1.61
I. Knowledge. Ability to link theory to Practice	9	36	4	1.75

I. Knowledge. Ability to design a system component.	9	35	3.9	1.11
I. Knowledge. Computer knowledge.	9	33	3.7	1
II. Communication Skills. Oral communication	9	41	4.6	0.52
II. Communication Skills. Report writing	9	33	3.7	1.75
II. Communication Skills. Presentation skills	9	40	4.5	1.02
III. Interpersonal Skills. Ability to work in teams	9	40	4.5	1.77
III. Interpersonal Skills. Leadership	9	40	4.5	0.52
III. Interpersonal Skills. Independent thinking	9	39	4.4	1
III. Interpersonal Skills. Motivation	9	38	4.3	0.69
III. Interpersonal Skills. Reliability	9	39	4.4	0.5
III. Interpersonal Skills [6. Appreciation of ethical values	9	41	4.6	0.52
IV. Work skills [1. Time management skills	9	37	4.1	1.11
IV. Work skills [2. Judgment	9	37	4.1	1.11
IV. Work skills [3. Discipline	9	39	4.3	1.25

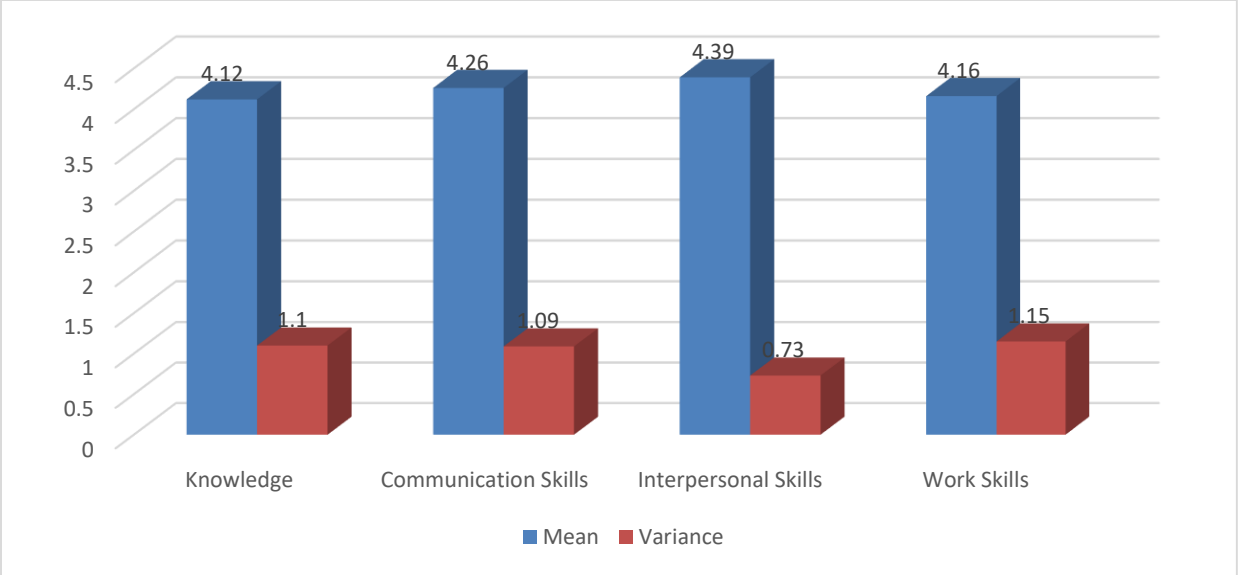
Table

Item Indexed Employer Survey Summary

<i>S.NO</i>	<i>Groups</i>	<i>N</i>	<i>Sum</i>	<i>Mean</i>	<i>Variance</i>
1	Knowledge	9	36.6	4.12	1.1
2	Communication Skills	9	38	4.26	1.09
3	Interpersonal Skills	9	39.1	4.39	0.73
4	Work Skills	9	37.6	4.16	1.15

Figure

Item Indexed Employer Survey Summary



Annexure G**Employer Alumni****Table**

Groups	N	Sum	Mean	Var
1.Knowledge. Math, Science, Humanities, and professional discipline.	49	197	4.02	0.97
Knowledge. Problem formulation and solving skills]	49	195	3.97	0.89
1. Knowledge. Collecting and analyzing appropriate data]	49	189	3.85	1.25
1. Knowledge. Ability to link theory to practice.	49	187	3.81	0.94
1. Knowledge. Ability to design a system component or process	49	183	3.73	1.32
1. Knowledge. IT knowledge	49	167	3.48	1.37
II. Communications Skills. Oral communication]	49	197	4.02	1.14
II. Communications Skills. Report writing	49	189	3.85	1.08
II. Communications Skills. Presentation skills]	49	192	3.91	1.15
III. Interpersonal Skills. Ability to work in teams.]	49	206	4.20	1.16
III. Interpersonal Skills. Ability to work in arduous /Challenging situation.	49	195	3.97	1.14
III. Interpersonal Skills. Independent thinking.	49	195	3.97	1.18
III. Interpersonal Skills. Appreciation of ethical Values.	49	191	3.89	1.30
IV. Management /leadership Skills [1. Resource and Time management skills.	49	200	4.08	1.11
IV. Management /leadership Skills [2. Judgment.	49	201	4.10	0.92
IV Management /leadership Skills [3. Discipline.	49	198	4.04	1.03
VII. Department Status. Infrastructure.	49	173	3.53	1.92
VII. Department Status. Faculty.	49	198	4.04	1.12
VII. Department Status. Repute at National level.	49	176	3.59	1.20
VII. Department Status. Repute at international level.	49	145	2.95	1.66

Table

Item Indexed Alumni Survey Summary

S.NO	Groups	N	Sum	Mean	Variance
1	Knowledge	49	186.33	3.81	1.12
2	Communications Skills	49	192.66	3.92	1.12
3	Interpersonal Skills	49	196.75	4.00	1.19
4	Management /leadership Skills	49	199.66	4.07	1.02
5	Department Status	49	173	3.52	1.4

Figure

Group Indexed Alumni Survey.

