

Institute of Pure and Applied Biology

Established:	1984
Academic Programs:	<p>Botany: BS (4-Year), M.Sc. (Morning & Evening) MS; M.Phil., Ph.D.</p> <p>Zoology: BS (4-Year), M.Sc. (Morning & Evening) MS, M.Phil., Ph.D.</p>
Enrollment:	<p>Botany: See the relevant chart at the end</p> <p>Zoology: See the relevant chart at the end</p>
Prerequisites:	<p>Botany</p> <p>BS (4-year) Intermediate (Pre-medical)</p> <p>M.Sc. B.Sc. with Botany & Zoology as Elective Subject</p> <p>MS/M.Phil. BS (4 year) or M.Sc. Botany</p> <p>Ph.D. As prescribed by the University</p> <p>Zoology</p> <p>BS (4-year) Intermediate (Pre-medical)</p> <p>M.Sc. B.Sc. with Botany & Zoology as Elective Subject</p> <p>MS/M.Phil. BS (4 year) or M.Sc. Zoology</p> <p>Ph.D. As prescribed by the University</p>

Faculty (Botany Division)

Professors

Dr. Saeed Ahmad Malik	Director
Dr. Altaf Ahmad Dasti	
Dr. Seema Mahmood	

Associate Professors

Dr. Abdul Wahid

Assistant Professors

Dr. Ghulam Yasin
Nosheen Noor Elahi
S. Tasveer Zahra Bokhari (On Study Leave)
Dr. Habib-ur-Rehman Athar
Dr. Zafarullah Zafar
Ahsan Sattar Sheikh
Dr. Ghazala Yasmeen Butt

Lecturers

Ahmed Akrem (On Study Leave)
Shehzadi Saima
Mirza Ahsan Baig

Students' Advisor

Faculty (Zoology Division)

Professor

Dr. Aleem Ahmad Khan

Associate Professor

Dr. Zahida Tasawar Khan

Assistant Professors

Syed Razaqat Ali Kazmi
Dr. Muhammad Naeem
Dr. Amjad Farooq
Dr. Furhan Iqbal

Lecturers

Bakhat Yawar Ali Khan
S. Benish Ali (On Study Leave)
Muzaffar Ali Khan
Samra Masood
Rehana Iqbal

Introduction

The Institute of Pure and Applied Biology was established in 1984. At present, the Divisions of Botany and Zoology are functioning. Divisions of Applied Microbiology, Genetics and Environmental Sciences are expected to be added in future. The faculty of the Institute includes highly qualified teachers who are involved in several research projects.

The Institute, at present, is offering several academic programs in the subjects of Botany and Zoology which include BS (4-Year), M.Sc. (2-Year), MS/ M.Phil. (2-Year) and Ph.D. The medium of instruction is English.

The Institute enjoys good reputation of producing quality research of international standard. Efforts are being made to further enhance research activity in the Institute through various research grants/projects financed by the Government/autonomous bodies e.g. PSF; HEC, PARC, TWAS (Italy) etc. The Institute also shares its research activity with other leading scientific institutions within the country and abroad through collaborative research programs. Teaching laboratories in the Institute are reasonably equipped with scientific equipment.

An adequate collection of textbooks, reference books and research journals is available in the Library of the Institute covering various disciplines of Botany, Zoology, Microbiology, Genetics, Fisheries, Wildlife, Animal & Plant Pathology and Freshwater Biology. These books are also available to the students from Book Bank of the University on loan basis.

The computer lab. of the institute is equipped with latest computers and high speed internet facility.

BOTANY DIVISION

The Botany Division started functioning in 1984. This Division is located in the Biology Building. The programs of studies BS (4 year), M.Sc., M.Phil and Ph.D. degrees in the subject of Botany are being offered. The Division has the facilities of air-conditioned green house, wire-netting houses, and experimental plots in the Botanical Garden for research/practical purposes. A study of plant life in different areas of Pakistan, especially in the Northern Regions, is important part of Botany Program. The graduates are employed in Education, Agriculture, Forest Department and Research Organizations.

Admission Committee

Prof. Dr. Saeed Ahmad Malik	Chairman
Prof. Dr. Seema Mahmood	Member
Dr. Habib-ur-Rehman Athar	Member/ Secretary
Dr. Ghulam Yasin	Member

Programs of Study

BS (4-Year) Botany

Scheme of Studies Available with the Department

M.Sc. Botany Program

The degree of M.Sc. in Botany would be awarded after successful completion of the courses of reading/labs. and fulfilling the requirements as laid down by the University. The minimum duration for M.Sc. degree is two academic years.

Eligibility

A candidate who has passed B.Sc. (2-Year) examination with Botany & Zoology as elective subjects is eligible for admission to M.Sc. Botany, provided that he/she has secured at least 45% marks in the relevant subject as well as in the aggregate.

Computation of Merit

The merit shall be determined as under:

Aggregate marks of B.Sc., plus marks in the relevant subject Botany, plus 10 marks for Chemistry/Biochemistry plus 20 Marks for Hifz-e-Quran.

Scheme of Studies Available with the Department

MS/M.Phil, Botany (2-Year)

The MS/M.Phil Botany program will include two semesters of course work and two semesters of research as given below:

Semester	No. of Courses	Credit Hours	Total Credit Hours
1 st	4	3	12
2 nd	4	3	12
3 rd & 4 th	Research work/ Thesis		6
Grand Total			30

Admission:

- See the Prescribed admission rules for MS/M.Phil.
- The details of seats for admission to M.Phil. is given in the relevant chart at the end.

Eligibility

A candidate who has passed BS (4-Year) or M.Sc. (2 years) in Botany securing at least second division and has qualified a test equivalent to GRE (General) National Testing Service (NTS).

Scheme of Studies

The scheme of studies for this program is available at the Office of the Director, Institute of Pure and Applied Biology.

Ph.D. Botany

Eligibility

As stated by Higher Education Commission.

Scheme of Studies

The scheme of studies for this programme is available at the Office of the Director, Institute of Pure and Applied Biology.

ZOOLOGY DIVISION

The Zoology Division started functioning in 1987. This Division is located in the Biology Building. BS (4-Year), M.Sc., M.Phil and Ph.D degree programs in the subject of Zoology are being offered. The study tours are also organized for the students to collect fauna from different areas of Pakistan as a requirement of their studies. The Division has established a museum and an animal house for study and research purposes. Environmental Biology, Fisheries, Wildlife, Limnology, Entomology, Ornithology and Parasitology are the main fields of research. The students completing studies from this department will have an awareness of the animal diversity, strategies to increase meat (fish and live stock), milk and wool production, recent parasitic and pest control programs, Sericulture and Honey Bee Farming. The graduates of the Division are accepted in Agriculture, Fisheries, Wildlife, Plant Protection, PARC, Education Department and Universities.

Admission Committee

Prof. Dr. Saeed Ahmad Malik	Chairman
Prof. Dr. Aleem Ahmad Khan	Member
Mr. Bakht Yawar Ali Khan	Member
Dr. Muhammad Naeem	Member/ Secretary

Program of Study

BS (4-Year) Zoology

Scheme of Studies Available with the Department

M.Sc. Zoology

The degree of M.Sc. in Zoology would be awarded after successful completion of the courses of reading/labs. and fulfilling the requirements as laid down by the University. The minimum duration for M.Sc. degree is two academic years.

Eligibility

A candidate who has passed B.Sc. (2-Year) examination with Botany & Zoology as Elective subjects is eligible for admission to M.Sc. Zoology, provided that he/she has secured at least 45% marks in the relevant subject as well as in the aggregate.

Computation of Merit

The merit shall be determined as under:-

Aggregate marks of B.Sc., plus marks in the relevant subject Zoology, plus 10 marks for Chemistry/Biochemistry plus 20 Marks for Hifz-e-Quran.

Scheme of Studies Available with the Department

MS/M.Phil Zoology (2-Year)

Semester	No. of Courses	Credit Hours	Total Credit Hours
1 st	3	4	12
2 nd	3	4	12
3 rd & 4 th	Thesis/ Research work		6
Grand Total			30

Admission:

- See the Prescribed admission rules for MS/M.Phil
- The details of seats each for admission to MS/M.Phil. is given in the relevant chart at the end.

Eligibility:

A candidate who has passed BS (4-Year) or M.Sc. (2 years) in Zoology securing at least second division and has qualified a test equivalent to GRE (General) by National Testing Service (NTS).

Scheme of Studies

The scheme of studies for this program is available at the office of the Director, Institute of Pure & Applied Biology.

Ph.D. Zoology

Eligibility

As stated by Higher Education Commission.

Scheme of Studies

The scheme of studies for this programme is available at the Office of the Director, Institute of Pure and Applied Biology.

Department of Chemistry

Established	1975
Academic Programs	BS (4-Year) M.Sc. (Morning & Evening) M.Phil./MS, Ph.D.
Enrollment	BS (4-Year), M.Sc., MS/M.Phil & PhD. (see the relevant chart at the end)
Prerequisites	<p>(BS) Intermediate Examination (Pre-Medical or Pre- Engineering) or an equivalent examination recognised by the University with Chemistry as an elective subject</p> <p>(M.Sc.) B.Sc. (2-years course) only with Chemistry, Botany & Zoology or Chemistry, Physics & Mathematics/ Statistics.</p> <p>(M.Phil. & MS) M.Sc. Chemistry with specialization in the relevant field.</p> <p>(Ph.D) As prescribed by the University.</p>

Faculty

Professor

Dr. Muhammad Arif	Chairman
Dr. Shahida B. Niazi	(Dean)
Dr. Humayun Pervez	
Dr. Muhammad Aslam Malana	
Dr. Tariq Mahmood Ansari	
Dr. Riffat Perveen	(On Extra-ordinary Leave)
Dr. Muhammad Aslam Shad	
Dr. Zahid Hussain Chohan	
Dr. Muhammad Younas Khokhar	
Dr. Zafar Iqbal Zafar	

Associate Professor

Dr. Farzana Mahmood	
Dr. Naheed Ikram	(On Deputation)

Assistant Professor

Dr. Samia Hafeez	
Dr. Muhammad Yaqub	

Dr. Ghazala Yasmin	
Dr. M. Najam-ul-Haq	
Dr. Ashfaq Mahmood Qureshi	
Dr. Zahid Shafiq	(On Ex-Pakistan Leave)
Dr. Mazhar Hussain	
Dr. Badar-ud-Din Ahmed	Student Advisor
Dr. M. Naeem Ashiq	
Dr. Muhammad Athar	

Lecturer

Mr. Adeel Hussain
Mr. Haq Nawaz

Introduction

The Department was established in 1975 and offers BS (4 - Year), M.Sc., M. Phil / MS and Ph.D. programs of studies. It has a highly qualified faculty with diversified research interests. Most research programs / projects run by the faculty are funded by various national / international agencies. It also shares its research activities with different national / international agencies through collaborative programs.

The Department houses different teaching / research laboratories equipped with the following equipment / instruments:

- UV-Visible Spectrophotometer
- IR Spectrophotometer
- FT-IR Spectrophotometer
- GC-MS
- Atomic Absorption Spectrophotometer
- Gas Chromatograph
- HPLC
- Elemental Analyzer
- Thermal Analyzer
- Polarograph
- Digital Density Meter
- Dipole Meter
- Lypholizer
- Ultra-centrifuge Machine

It also houses a computer laboratory having 20 P-IV systems connected with the University Local Area Network. This laboratory has been established to meet the requirements of the very recently revised curricula of Chemistry and the research programs of the Department.

The Department has a library containing more than eleven thousand books. A number of research journals and periodicals are also available.

The Department has an excellent record of providing trained human resource to Education, Industry and R & D Sector through its active co-ordination with various organizations.

Admissions

Admissions are conducted by the Departmental Admission Committee according to the criteria laid down by the University.

Admission Committee

Prof. Dr. Muhammad Arif	Chairman
Dr. Mazhar Hussain	Secretary/ Member
Mr. Adeel Hussain	Member

The Committee looks after the admission process of all the programs offered and can be accessed for interpretation of the Rules and Regulations prescribed for the purpose.

Programs of Study

M. Sc. Program

Since its inception, the Department is offering M.Sc. Program with the following major and minor areas of studies:

- A Physical Chemistry
- B Inorganic Chemistry
- C Organic Chemistry
- D Analytical Chemistry
- E Bio-Chemistry
- F Applied Chemistry

The University has introduced the Annual System in all science subjects at M.Sc. level from the academic session 2009-10.

Accordingly, the Department of Chemistry has adopted the following Scheme of Studies for its both Morning & Evening programs:

Scheme of Studies Available with the Department

Break-up of Seats

Chart-1 shows the break-up of seats for admission to M. Sc. program.

Admission Criteria

Eligibility

For admission to M.Sc. (Part-I), the candidates must possess B.Sc. (2-years course) with Chemistry, Botany and Zoology or Chemistry, Physics and Mathematics / Statistics as elective subjects, securing at least 45% marks in Chemistry as well as in the aggregate of B.Sc. Examination.

Admission would, however, be granted strictly in accordance with the merit to be determined according to the scheme given as under:

Determination of Merit

Marks in B.Sc. + marks in Chemistry + 20 marks for Hifz-e-Quran (if applicable). In each category of admission, a merit list is drawn from which the candidates are offered admission according to the number of seats available.

M. Phil / MS Program

M. Phil. (2 - Year) Program was started in the year 2002 under Semester System. The Department offers specialization in one of the following fields:

- A Physical Chemistry
- B Inorganic Chemistry
- C Organic Chemistry
- D Analytical Chemistry
- E Bio-Chemistry

The requirements (course work and dissertation) for M.Phil / MS degree are

normally completed within four consecutive semesters. The course work of 24 credit hours is normally completed within first 2 semesters. Seminar of one credit hour and dissertation (based on research) of 25 credit hours shall normally be completed by the end of the 4th semester. The detail of the Scheme of Studies is given as under:

Scheme of Studies Available with the Department

Break-up of Seats

Chart-1 shows the break-up of seats for admission to M. Phil. program.

Admission Criteria

Eligibility and Merit

A person holding M. Sc. Chemistry degree of this University with at least 2nd division or a similar degree of any other university recognized by HEC and having passed NTS Test as per admission requirement of HEC (securing at least 50% marks) will be eligible for admission to M. Phil / MS program. Admission would, however, be granted strictly in accordance with the merit. In each specialization, candidates securing highest score are offered admission in order of merit.

Ph.D. Program

The Department also offers Ph.D. Program in various areas of Chemistry. The applications for registration in this program may be submitted as per schedule announced by the University. Currently, more than thirty research scholars are working on different research projects under this program. Interested candidates may contact any faculty member for further information.

Centre for Advanced Studies in Pure and Applied Mathematics

Established	1975	Faculty	
Academic Programs	BS (4-Year / 8-semesters) M.Sc. (2-year / 4-semesters) (Morning & Evening) MS/M.Phil. (2 year / 4-semesters) Ph.D. (4-year) PGD. (1 Year / 3-semesters)	Professor Dr. Muhammad Anwar Chaudhry	Director (Foreign Faculty Member)
Enrollment	See the relevant chart at the end.	Associate Professor Dr. Zahida Akram Dr. Nusrat Yasmin	(On Ex-Pakistan Leave) Student Advisor (Female)
Prerequisites	i) BS (4-Year) Intermediate Examination (Pre-Engineering) or an equivalent examination recognized by the University with Mathematics as an elective subject ii) M.Sc. B.A./B.Sc. Examination with Mathematics A & B Courses, securing at least 45% marks in subject (Math A & B), as well as in the aggregate of B.A./B.Sc iii) MS/M.Phil i) M.Sc./BS (4-Year) Mathematics with at least 45% marks under annual system or 50% marks under semester system. ii) GAT; cutoff scores 50th percentile. iv) Ph.D. MS/M.Phil in Mathematics with 3.0 CGPA or equivalent degree in Physics, Engineering, Economics or Computer Science (with M.Sc./ BS Mathematics) with 3.0 CGPA; GRE (Mathematics); cutoff scores 50th percentile.	Assistant Professor Dr. Khalid Saifullah Dr. Muhammad Ashraf Dr. Imran Javed Dr. Muhammad Asif Dr. Mudassar Nazar Dr. Usman Ali Dr. Azeem Haider Dr. Muhammad Saeed Akram	(Under IPFP) (Under IPFP)
		Lecturer Mr. Faisal Ali Mrs. Saima Akram Mr. Amjad Ali Mr. Muhammad Ibrahim Miss Razia Sultana Miss Aneela Razzaq Miss Fiza Zafar Mr. Shahzad Ahmad Mr. Imran Khalid Ms. Safia Mirza	Student Advisor (Male) (on leave) (on leave)
		Introduction The Department of Mathematics, Bahauddin Zakariya University, Multan came into being with the establishment of the University in September, 1975. The Department progressed very rapidly and in 1985, it was upgraded as the Centre for Advanced Studies in Pure and Applied Mathematics (CASPAM). The Centre has now eleven teachers with Ph.D. degrees including one Foreign Professor, eight with MS/M.Phil and two with M.Sc. degree.	
		The Centre is imparting education at the levels of BS (4-Year), M.Sc., MS/M.Phil. and Ph.D. in Mathematics. The Post Graduate Diploma	

of one year duration in Business & Industrial Mathematics and Computer Programming has also been started from the session 2002-2003, in the evening.

The Centre has the honour of successfully completing a collaboration program with the Department of Mathematics, Bradford University, UK. Under this collaboration not only exchange of teachers took place but the computer laboratory of the centre was also equipped with the Sun Computer System.

The graduates of the centre are serving in different Federal and Provincial Government Departments, Armed Forces, Pakistan Atomic Energy Commission, Banks, Insurance Companies and other Financial and Educational Institutions.

Computer Center

Computer Centre is one of the four sections of the Centre for Advanced Studies in Pure and Applied Mathematics (CASPAM). It was established in 1987 to provide computing facilities to the students of M.Sc., MS/M.Phil and Ph.D programs of CASPAM. The research students and teachers of the University are also using its computing facilities for research purpose. Computer Centre is responsible for smooth running of the Post Graduate Diploma and other short term computer courses offered by CASPAM from time to time.

Programs of Study

The Centre is offering four degree level programs namely, BS (4-years), M.Sc. (Morning & Evening), MS/M.Phil. and Ph.D. The admission to any of these programs is made by the Admission Committee of the respective program according to the admission/merit criteria laid down by the University/Centre.

M.Sc. Program in Mathematics (Morning & Evening)

The M.Sc. program consists of 4 semesters of study with specialization in one of the three areas i.e. Pure Mathematics, Applied Mathematics and Computational Mathematics.

Admission Committee M.Sc. Program

Director, CASPAM	Chairman
Dr. Nusrat Yasmin	Member
Dr. Muhammad Ashraf	Member
Mr. Faisal Ali	Member/Secretary

Computation of Merit:

The merit will be determined as under: Aggregate marks of B.A./B.Sc., plus marks obtained in Mathematics A & B courses, plus 20 marks for Hifz-e-Quran.

Scheme of Studies Available with the Department

MS/M.Phil Program in Mathematics

The CASPAM offers graduate programs leading to the degree of Masters of Science/ Masters of Philosophy in Mathematics. The diversity of graduate courses offered in the Centre gives the student an opportunity to specialize in one of the several fields of Pure Mathematics, Applied Mathematics and Computational Mathematics.

Admission Committee (MS/M.Phil)

The admission to MS/M.Phil. will be made by the following admission committee according to the prescribed criteria.

Director, CASPAM	(Chairman)
Dr. Nusrat Yasmeen	(Member)
Dr. Khalid Saifullah	(Member)
Dr. Muhammad Ashraf	(Member)
Dr. Imran Javed	(Member / Secretary)

Computation of Merit

Merit shall be determined as per following formula.

Academic qualification	=	40%
GRE/GMAT test conducted by NTS	=	30%
	(of the qualified score)	
Test by the department	=	20%
Publications	=	10%
		100%

Note: This merit formula may be changed by the university at any time.

Scheme of Studies Available with the Department

Ph.D Program in Mathematics

The Centre for Advanced Studies in Pure and Applied Mathematics offers graduate programs leading to Ph.D degree in Mathematics. The diversity of graduate courses offered in the Centre gives the student an opportunity to specialize in one of the several fields of Pure Mathematics, Applied Mathematics and Computational Mathematics.

Admission Committee (Ph.D)

The admission to Ph.D. will be made by the following admission committee according to the prescribed criteria.

Director, CASPAM	(Chairman)
Dr. Nusrat Yasmeen	(Member)
Dr. Khalid Saifullah	(Member)
Dr. Muhammad Ashraf	(Member)
Dr. Imran Javed	(Member/ Secretary)

Computation of Merit

Merit shall be determined as per following formula.

Academic qualification	=	40%
Admission Test/Interview	=	40%
		(20+20)
Publication	=	20%
		<hr/> 100%

Note: This merit formula may be changed by the university at any time.

Scheme of Studies Available with the Department

PGD

Post Graduate Diploma in Business & Industrial Mathematics and Computer Programming

There is a great need of trained manpower, equipped with the latest knowledge of computer hardware and software, for Business, Industrial and Government Organizations. The Centre for Advanced Studies in Pure and Applied Mathematics (CASPAM) has been playing a vital role to fulfill this demand to some extent by offering computer courses as part of the syllabus of M.Sc. program and Post Graduate Diploma in Business & Industrial Mathematics and Computer Programming. A wide range of

courses is the part of the syllabus of this Diploma, along with the latest courses of Computer Science and Computer Applications. The syllabus of this Diploma has been designed in such a way that the Diploma holders from this Centre can contribute practically to fulfill the demand of skilled persons we lack and enhance the economy of our country.

Keeping in view, the high cost of education in reputed private institutions, a comfortable and affordable fee structure has been designed so that the students who cannot get admission in private institutions and professional courses can be trained to make useful and significant contribution in making our country prosperous. This PGD Diploma is also extremely helpful for those graduate students of Arts, who want to get professional/technical training in the fields of Business/Industrial management and computer programming and find jobs in Industry and other organizations.

Eligibility:

Applicants must be at-least graduate (in any field) or have equivalent degree with a minimum of 2nd division from a recognized university.

Merit:

The merit will be determined on the basis of Test and Interview.

Scheme of Studies Available with the Department

Institute of Computing

Established (Institute of Computing) 2009

Undergraduate Programs	BS(CS), BS(IT), BS(TS)
Postgraduate Programs	MCS, MIT, M.Sc. (TS), MS(CS)
Enrollment	BS(CS) BS(IT) BS(TS) MCS(Morning & Evening) MIT M.Sc.(TS) MS(CS) Please see the relevant chart

Departments

Department of Computer Science
Department of Information Technology
Department of Telecommunication Systems

Introduction

The Institute of Computing came into existence in April 2009, as an up-gradation of the Department of Computer Science which was established in 1995. Today, the institute provides an excellent educational environment that aims at bringing out the best. As the computing industry matured, professional qualifications are becoming more and more essential. The taught curriculum encompasses the recommendation of IEEE and ACM joint committee on Computer Science Curriculum and also conforms to the recommendations of the National Curriculum Revision Committee in the Information Technology, Computer Science and Telecommunication Systems, duly approved by the Higher Education Commission, Ministry of Education and Ministry of Science and Technology.

The students in the Institute of Computing have almost unlimited access to computers and the professional software tools that go with them. The Institute has over 10 teaching laboratories/interactive classrooms, which are equipped with more than 400 Pentium-IV/III based multimedia PCs loaded with Windows XP, Linux, Sun V890 Server, Sun StorEdge 6610 SAN and Sun Ultra Sparc Enterprise System with 40 Sun Ray-I workstations. All these teaching laboratories/interactive classrooms are networked to 10 common Dual/

Quad Xeon based servers. They are also connected to the university Fiber Optic based Campus LAN and to the outside world via Internet. Each of them is fitted with an overhead multimedia projector. The Institute also has the facility of Video Conferencing Room funded by the HEC, which will provide an opportunity of access and connectivity for the University to the human resource across the globe. It will help to boost the level of academic and research activity.

For the CISCO Local Academy, CISCO Systems Inc. USA donated a bundle of equipment containing six CISCO 2800 Series Routers and three CISCO 2600 Series Catalyst Switches. The CCNA networking course has already been launched many times. It is useful for the people of Southern Punjab, since no proper network training facility is available in this area. It is also helpful in raising the quality of education in other programs especially Telecommunication Systems program, as computer networks are essential part of their studies. The detail of different academic programs offered by the Institute is given on subsequent pages.

Admission Procedure

A candidate seeking admission to a program must apply for admission to the Institute of Computing on the prescribed application form that is available from the Treasurer/Authorized branch of the selected banks. The duly filled-in application form must be submitted to the Institute on or before the last date fixed by the University for the receipt of application forms for the Program within the University office hours. The application form must accompany the attested photocopies of the academic and relevant documents. Incomplete applications or application forms received after due date or delivered/ submitted somewhere else will not be entertained.

The applications on Special Admission Charges seats must accompany a Bank draft of appropriate amount for the program in favour of Treasurer, Bahauddin Zakariya University, Multan along with their applications failing which their applications will be turned down.

Lists of selected candidates will be displayed only on the Notice Board of the Institute of Computing according to the prescribed admission schedule and will not be communicated by post or any other means.

Department of Computer Science

Incharge

Prof. Dr. Shahida B. Niazi
Dean, Faculty of Science and Agriculture

Faculty

Professor

Prof. Dr. Aman Ullah Khan

Assistant Professor

Dr. Qaisar Rasool Azeemi
Mr. Amjad Rehman Khan (On Leave)
Dr. Minhaj Ahmad Khan

Lecturer

Mr. Malik Ghulam Hussain
Ms. Humaira Afzal
Mr. Shahid Farid
Mr. Israr Hanif
Ms. Rafia Inam (On Leave)
Mr. Khawaja Tehseen Ahmad
Mr. M. Ateeq
Mr. M. Khalil Afzal (On leave)

Student Advisor

Mr. Israr Hanif

Admission Committee

Dr. Qaisar Rasool Azeemi	Head
Mr. Malik Ghulam Hussain	Member
Mr. Khawaja Tehseen Ahmad	Member
Mr. Shahid Farid	Secretary

Computer Science Programs

Computer Science degree is an excellent preparation for a future career. It sharpens the analytical skills of students as they discover the structures underlying software, stretches their creative talents as they design new systems and gives them the confidence to market their ideas to waiting world. The students will come to understand why systems work as they do - and what they learn will never go out of date for as long as people go on using computers. Although fashions in packages and programming

languages come and go, the principles do not change and Computer Science is about principles. Yet it is more than that: the software packages we take for granted today are among the most complex artifacts ever created. To understand them one requires a degree of intellectual activity-matching that is required in any longer established Sciences.

Undergraduate Programs

BS (CS) Program

Four-year Degree Program (Bachelor of Science in Computer Science)
133+ credit hours spread over 8 semesters.

Equivalent to MCS/M.Sc. Computer Science (16 years education)

Eligibility

F.Sc. Pre-Engineering/Pre-Medical, Intermediate with Computer Science/General Science/Commerce or equivalent with 45% aggregate marks.

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria. The minimum strength for a class to be started is 20.

Thirty percent (30%) weightage to marks obtained in the Aptitude/Entry Test + 70% weightage (to marks obtained in intermediate + 20 marks for Hifz-e-Quran).

Postgraduate Programs

MCS Program

2-Year Degree Program (Master of Computer Science – Conversion Course) 70+ credit hours spread over 4 semesters.

Eligibility

B.A./B.Sc. in any of the following: Maths, Physics, Computer Science, Commerce, Statistics, Economics with 45% aggregate marks.

Equivalent to BS (CS)/M.Sc. (Computer Science) (i.e. 16 years education)

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria. The minimum strength for a class to be started is 20.

30% weightage to marks obtained in the Aptitude/Entry Test + 70% weightage to marks obtained in B.A./B.Sc. or equivalent examination including 20 marks for Hifz-e-Quran + 5 marks for each of the Computer-A/ Computer-B/Computer-G Bachelor level subjects.

MS (CS)

2-Year Degree Program (Master of Science in Computer Science) 30 + credit hours spread over 4 semesters (2 semesters Course work plus thesis).

Eligibility

BS (CS) 4-Year Degree (min 130 credit hours), or Master of Computer Science Conversion Course 2 Years Degree Program (min 72 credit hours) referred to as "MCS" or "M.Sc.(CS)".

Equivalent to M.Phil (18 years education)

Scheme of Studies Available with the Department

Department of Information Technology

Head

Prof. Dr. Shahida B. Niazi

Faculty**Lecturer**

Mr. Ahmad Tisman Pasha
Mr. Ahmad Karim
Mr. Ahsan Raza

Student Advisor

Mr. Ahmad Tisman Pasha

Admission Committee

Prof. Dr. Shahida B. Niazi	Head
Mr. Ahmad Tisman Pasha	Member
Mr. Ahmad Karim	Member
Mr. Ahsan Raza	Secretary

Information Technology Programs

The Information Society of the new millennium will require individuals with a range of skills in information handling, information management, multimedia presentation, analytical and problem solving techniques. The programs in Information Technology are designed for the students who wish to apply a high level of expertise to their chosen academic and career pathways in future as well as those who are considering IT related career in education, training, industry or government. The courses of reading for IT have been designed in the light of the recommendations of IEEE and ACM Joint Committee on Computer Science Curriculum and the recommendations of the National Curriculum Revision Committee in the Information Technology and Computer Science approved by HEC and MoST. The Information Technology degree programs are a blend of courses from IT and management and produce graduates which are equipped with both IT and management skills.

Undergraduate Programs**BS (IT) Program**

Four-Year Degree Program (Bachelor of Science in Information Technology) 133+ credit hours spread over 8 semesters.

Equivalent to MIT/M.Sc. Information Technology (16 years education)

Eligibility

F.Sc. Pre-Engineering/Pre-Medical, Intermediate with Computer Science/General Science/Commerce or equivalent with 45% aggregate marks.

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria. The minimum strength for a class to be started is 20.

Thirty percent (30%) weightage to marks obtained in the Aptitude/Entry Test + 70% weightage (to marks obtained in intermediate + 20 marks for Hifz-e-Quran).

Postgraduate Programs

MIT Program

2-Year Degree Program (Master of Information Technology – Conversion Course) 72 credit hours spread over 4 semesters.

Eligibility

B.A./B.Sc. in any of the following: Business Administration, Maths, Physics, Computer Science, Commerce, Statistics, Economics, and Bachelors of Engineering with 45% aggregate marks.

Equivalent to BS (IT), M.Sc. (Information Tech.) (i.e. 16 years education)

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria. The minimum strength for a class to be started is 20.

30% weightage to marks obtained in the Aptitude/Entry Test + 70% weightage to marks obtained in B.A./B.Sc. or equivalent examination including 20 marks for Hifz-e-Quran + 5 marks for each of the Computer-A/ Computer-B/Computer-G Bachelor level subjects.

Scheme of Studies Available with the Department

Department of Telecommunication Systems

Head

Prof. Dr. Mazhar ud-Din Rana

Faculty

Lecturer

Ms. Ammara Anjum Khan
Mr. M. Muzaffar Hameed
Engr. Nouman Bashir
Engr. Mudessar Rahim
Mr. Taimoor Hassan Jabbar

Student Advisor

Mr. M. Muzaffar Hameed

Admission Committee

Prof. Dr. Mazhar ud-Din Rana	Head
Engr. Mudessar Rahim	Member
Mr. Taimur Hassan Jabbar	Member
Mr. M. Muzaffar Hameed	Secretary

Telecommunication Systems Programs

We live in an environment where telecommunications play a very important role. How we do business, how we spend our leisure time and how we view ourselves is determined by our global telecommunication systems. If you choose a telecommunications degree you will find that you have a wide choice of specializations. Training in telecommunications will give you the skills you will need to advance in a quickly expanding job market. You will be working in an exciting field which is constantly making breakthroughs. You could set up your own business or work for a long established multinational company.

Telecommunication System programs provide you training in the necessary skills including the application of computer technology in telecommunications, how the digital age is applied in the field, fiber optic technology, amplitude and frequency modulation and of course the Internet. Those of you who already have experience in electronics and information technology are already at an advantage and you can expect to have the best opportunities.

Undergraduate Programs

BS (TS) Program

Four-Year Degree Program (Bachelor of Science in Telecommunication System) 133+ credit hours spread over 8 semesters.

Eligibility

F.Sc. (with Mathematics/Physics) or equivalent with 45% aggregate marks.

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria. The minimum strength for a class to be started is 20.

Thirty percent (30%) weightage to marks obtained in the Aptitude/Entry Test + 70% weightage to (marks obtained in F.Sc. + 20 marks for Hifz-e-Quran)

Postgraduate Programs

M.Sc. (TS) Program

2-Year Degree Program (Master of Science in Telecommunication Systems) 72-credit hours spread over 4 semester.

Eligibility

MCS/MIT/BS(CS/IT) / B.Sc. Engg. (Electrical/Electronics) / B.Sc. with Computer+Math / Math-A&B / Math+Physics) or equivalent securing at least 45% marks.

Admission Criteria

A student who qualifies the Aptitude/Entry Test will be considered for admission to the appropriate program according to the following merit criteria.

- a) 70% marks in the last examination + 30% Entry Test marks (for professionals)
- b) 30% weightage to marks obtained in the Aptitude/Entry Test + 70% weightage to marks obtained in B.Sc. including 20 marks for Hifz-e-Quran.

Scheme of Studies Available with the Department

Admission Procedure

A candidate seeking admission to a program must apply for admission to the Institute of Computing on the prescribed application form that is available from the Treasurer/ Authorized branch of the selected banks. The duly filled-in application form must be submitted to the Institute on or before the last date fixed by the University for the receipt of application forms for the Program within the University office hours. The application form must accompany the attested photocopies of the academic and relevant documents. Incomplete applications or application forms received after due date or delivered/submitted somewhere else will not be entertained.

Lists of selected candidates will be displayed only on the Notice Board of the Institute of Computing according to the prescribed admission schedule and will not be communicated by post or any other means.

Department of Physics

Established	1975
Academic Programs	BS Physics (4-years), M.Sc. Physics (Morning & Evening), M.Sc. Applied Physics (Evening), M.Phil/M.S. & Ph.D.
Enrollment	BS (4 Year), M.Sc. M.Phil/ MS & Ph.D.
Pre requisite	BS F.Sc. with Maths & Physics M.Sc. B.Sc. with Physics as elective subject along with Mathematics at B.Sc. or F.Sc. level. M.Phil M.Sc. (Physics, Applied Physics, Applied Mathematics, Materials Science, Electronics) OR B.Sc. Electrical/Electronics/Metallurgy) Engineering

Faculty

Professors

Dr. M. Ashraf Chaudhry	(Tenure Track) Chairman
Dr. Tahir Abbas	(Tenure Track)
Dr. M. Younus Nadeem	Director Academics (BZU, Multan)
Dr. Ejaz Ahmed	(Tenure Track), Director, Undergraduate Studies
Dr. M. Tariq Bhatti	
Dr. Mazhar-ud-Din Rana	Students' Advisor/Head of Telecommunication System.

Associate Professors

Dr. Ishtiaq Ahmad
Dr. Misbah-ul-Islam
Dr. Amer Bashir Ziya
Dr. Javed Ahmad

Assistant Professor

Mr. Anwar Manzoor Rana
Mr. Asim Javed

Lecturers

Mr. M. Nauman Usmani
Mr. M. Arif Khalil (On Study Leave)
Ms. Maryam Hina
Ms. Mudassara Kanwal

Introduction

The Department of Physics was established in 1975. It is housed in the building called "Physics Block". The Department, besides well equipped teaching and research laboratories, has its own Computer Laboratory, Seminar Library, Workshop and Lecture Theatre. The Department is conducting teaching/research at the BS, M.Sc., M.Phil./MS and Ph.D. levels. The information regarding M.Phil./MS Ph.D. program can be obtained from the Chairman of the Department.

The following teaching laboratories are being maintained in the Department in which students are required to complete a number of experiments/practicals during studies.

1. Undergraduate Physics Laboratory
2. Modern Physics Laboratory
3. Electronics Laboratory
4. Advanced Electronics Laboratory
5. Computer Hardware Laboratory
6. IT and Computer Software Laboratory

The present research interests of the Department are in the following fields:

1. Physics of Metals and Alloys
2. Magnetics Materials
3. Amorphous Thin Films
4. Solid State Spectroscopy of Novel Materials
5. Non-Crystalline Solids

The Library of the Department contains more than five thousand books in various disciplines, such as Physics, Applied Physics, Electronics, Mathematics, Computer Science, Materials Science, Laser etc. In addition to the scientific books, the library also subscribes a large number of reputed National and International journals. The Physics Abstracts from 1958 to 1987 are available in the Departmental Library and efforts are being made to update these. The books in the subjects of Physics and Electronics are also available to the student from the Book Bank of the University on loan basis. Free of cost Internet facility is also available in the library for all the student. Computer and internet facilities are available in almost all Research Laboratories of the Department and Teachers offices. A new Computer Software Laboratory has been established which has its own small area local network and is equipped with the multimedia facilities. In addition, research students of the Department can also

avail computing and internet facilities available in the Department Library.

Admissions

Admissions are conducted by the following Departmental Admission Committee according to the admission criteria laid down by the B.Z. University.

Admission Committee

Prof. Dr. Muhammad Ashraf Chaudhry	Chairman
Prof. Dr. Muhammad Tariq Bhatti	Secretary
Dr. Ishtiaq Ahmad	Member
Dr. Amir Bashir Zia	Member
Mr. Nauman Usmani	Member

The Committee looks after the admission process and can be accessed for interpretation of the rules and regulations.

Admission

The detail of seats for admission to M.Sc. (Morning/Evening) Part-I class is given in relevant chart at the end. The admission of Semester-I class will be made by the Departmental Admission Committee according to the admission/merit criteria laid down by the University/Department.

Programs of Study

M.Sc. Physics

(Morning/Evening)

M.Sc. Applied Physics

(Evening)

M.Sc. Physics (Morning/Evening) program is conducted in annual system while M.Sc. Applied Physics (Evening) is carried out in semester system at the Department. The corresponding scheme of studies are available in the Department of Physics.

Scheme of Studies Available with the Department

MS/M.Phil Physics (2-Years/4 Semesters)

Scheme of Studies Available with the Department

Ph.D. Physics (2-Years/ 4-Semesters)

Scheme of Studies Available with the Department

Division of Seats

See the relevant chart at the end.

Admission Criteria

Eligibility

a) M.Sc. Physics

(Morning/Evening Program)

b) M.Sc. Applied Physics

(Evening Program)

The candidate who has passed B.Sc. (2 years) examination with Physics and Mathematics OR with elective Math in F.Sc. will be eligible for admission to M.Sc. Physics, Part-I/Semester-I (in case of Applied Physics), provided that the applicant has obtained at least 45% marks in Physics at the B.Sc. level as well as in aggregate marks of B.Sc. examination. There is no age limit for the evening program.

b) MS/ M.Phil./ Ph.D.

The University has recently introduced an M.Phil. leading to Ph.D program. The entry requirement for this degree program would be a Master degree in Physics, Applied Mathematics/Materials Science and B.Sc. Engineering (4 years after F.Sc.). Students who have successfully completed the M.Sc, degree, with at least 50% marks or equivalent, in the areas of Physics, Applied Mathematics, Materials Science, Electronics and B.Sc. (electrical/Electronics/ Metallurgical) Engineering would be entitled to seek admission in this program.

c) Ph.D.

Direct Ph.D. enrolment is available if the candidates fulfill the HEC, Pakistan prescribed criteria.

Determination of Merit

a) M.Sc. Physics (Morning/Evening Program)

Aggregate marks of B.Sc.
+ Marks in the subject of Physics
+ 20 marks for Hifz-e-Quran.

b) M.S. / M. Phil.

Qualifying GRE (general) test is compulsory for M.S./ M. Phil. Program. Merit shall be determined as per following formula:

Academic Qualification =	40%
GRE/ GMAT test =	50%
(Conducted by NTS)	
Publication(s) =	10% (max.)
Total =	100 %

Institute of Biotechnology

Established	2006
Academic Programs	BS (Morning & Evening) M.Sc.(Morning & Evening) M.Phil, Ph.D.
Enrollment	See the relevant chart at the end.
Pre requisites for	BS (4-Year) F.Sc. (Pre-medical) or Equivalent exam recognized by the University with Biology as an elective subject M.Sc. B.Sc. (2-Year with Botany, Zoology & Chemistry) B.Sc. Medical Technology M.Phil/Ph.D. BS (4-Year in Biotechnology, Botany, Zoology, Biochemistry, Microbiology, Medical Technology, Molecular Biology) M.Sc (2- Year in Biotechnology, Botany, Zoology, Biochemistry, Microbiology, Medical Technology, Molecular Biology) MBBS BDS B. Pharm (4-Year) Pharm-D DVM, B.Sc. (Agriculture) Hons.

Faculty

Professor

Dr. Muhammad Ali

Director

Assistant Professors

Dr. Muhammad Baber
Dr. Rehan Sadiq Shaikh
Dr. Zahid Mahmood

Lecturer

Mr. Muhammad Shahzad Anjam
Mr. Muhammad Assad Aslam
Mr. Ali Saeed

Introduction

Biotechnology is defined as the application of scientific and engineering principles to the processing of materials by biological agents to produce goods and services. The completion of human genome and Arabidopsis genome projects in the year 2000 were great breakthroughs in the field of biotechnology. In the past twenty years, unprecedented progress in biotechnology has been observed, which has made revolutionary impacts on every aspect of human activity such as agriculture, forestry, horticulture, livestock, health, medicine and environment. In agriculture, it is predicted that the next green revolution or more appropriately “evergreen revolution or more revolution “evergreen revolution” will be due to biotechnological innovations. In livestock, production of new transgenic animals will not only meet the future needs of protein, dairy products etc but these animals could also be used as bioreactor for the production for various pharmaceuticals products. New safe protein drugs, particularly by site-directed mutagenesis, vaccines, diagnostic kits, antibiotics and enzymes can be produced by exploiting the biotechnology in the field of medicine (Medical biotechnology). The genetic based diagnostic assays for some genetic disorders and other diseases have already been developed and their treatment by gene therapy would be possible.

The primary objective of the Institute of Biotechnology is to produce manpower that can contribute to the development of Pakistan particularly in science and technology and its economy in general. Institute of Biotechnology has been established with initial HEC grant of 38 million rupees. It offers M.Sc., M.Phil and PhD programs of study. The Institute houses most modern teaching and research laboratories with the following equipment:

- Thermal Cycler (PCR)
- Gel Documentation System
- Vertical/Horizontal gel electrophoresis system
- Fermenter
- Atomic Absorption Spectrophotometer
- Bomb Calorimeter
- Freeze Dryer
- Ultra-centrifuge machine
- Incubators, CO2 Incubator
- Bench Top Centrifuges
- UV-Visible Spectrophotometer
- Laminar Flow hood
- Rotary evaporator
- Orbital shaker
- Hybridization oven
- Inverted Microscope
- Ultra low temperature refrigerators (-20 to -80 °C)
- Plant growth room

In addition, a Bioinformatics laboratory has also been established with fifteen P-IV computers. The library of the Institute is equipped with latest and modern books on biotechnology and allied disciplines such as Biology, Genetics, Biochemistry, Pharmacology, Immunology, Agriculture and Microbiology. The institute is also a subscriber of prestigious journals of biotechnology such as Nature Biotechnology, Applied Biotechnology & Microbiology and Journal of Biotechnology.

Admission

Admissions are conducted by the following Admission Committee of the Institute according to the admission criteria laid down by the University / Institute.

Admission Committee

Prof. Dr. Muhammad Ali	Director
Dr. Muhammad Baber	Secretary
Dr. Zahid Mahmood	Member
Mr. M. Shahzad Anjam	Member
Mr. M. Assad Aslam	Member
Mr. Ali Saeed	Member

BS (4 Years) Biotechnology Program

(Morning & Evening)

The Institute of Biotechnology offers BS (4 Years) Biotechnology (Semester System) courses of reading approved by Higher Education Commission, Islamabad.

Eligibility

The candidate who has passed F.Sc. (Pre-Medical) or equivalent exam with at least 45% marks aggregate in F. Sc.

Determination of Merit

Marks in F.Sc. + 20 marks for Hifz-e-Quran (if applicable).

Scheme of Studies Available with the Department

M.Sc. Biotechnology Program

(Morning & Evening)

The Institute of Biotechnology offers M.Sc. Biotechnology (Semester System) courses of reading approved by Higher Education Commission, Islamabad.

Break-up of Seats

See the relevant chart at the end.

Scheme of Studies Available with the Department

MS/ M.Phil Program

M.S/ M.Phil (2-Year) program will include two Semesters of course work and two semesters of research. Qualifying CGPA for promotion in 2nd semester after setting the minimum pre-required will be CGPA of 2.20 and candidates have to get through the comprehensive examination. Research will be carried out in the 2nd year (3rd and 4th Semester) it will be of 6 Credit Hours. The candidates will be required to give a seminar before submitting the research thesis.

Eligibility

A candidate who has passed BS (4-Year) or M.Sc. (2 years) in subject as mentioned above securing at least second division and has qualified a test equivalent to GRE/GAT (General) conducted by National Testing Service (NTS).

Scheme of Studies Available with the Department

Ph.D. Program

The institute also offers Ph.D. program. The applications for registration in this program may be submitted as per schedule of the university. For admission in Ph.D program applicant must have passed previous exam with at least CGPA 3.00. Interested candidates may contact the Director, Institute of Biotechnology for further information.

Scheme of Studies Available with the Department

Department of Statistics

Established:	1975
Academic Programs:	BS (4-Year); M.Sc. (Morning & Evening); P.G.D. (CP&CS); MS/ M.Phil & Ph.D.
Enrolment:	See the relevant chart at the end
Prerequisites:	BS (4-Year) F.A / F.Sc (with Statistics) at least 45% marks M.Sc B.A / B.Sc. with Statistics as an elective subject with at least 45% marks MS (Statistics) BS (4-Year) Statistics with at least 2.5 CGPA M.Phil (Statistics) BS (4-Year) Statistics with at least 2.5 CGPA or M.Sc. (Statistics) at least 50% marks (Annual System) or 2.5 CGPA in Semester System Ph.D (Statistics) As per prescribed by the University

Faculty

Professor

Dr. Asghar Ali
Dr. Zafar Mahmud
Dr. Ijaz Iqbal

Chairman

Students' Advisor

Associate Professor

Dr. Muhammad Akram

Assistant Professor

Mr. Muhammad Amanullah
Dr. Muhammad Aslam

Incharge Examinations

Lecturer

Ms. Saima Afzal
Mr. Atif Akbar
Ms. Maqsooda Parveen
Ms. Saima Khan Khosa
Mr. Muhammad Ejaz

Students' Advisor (Female)

Introduction

The Department of Statistics is one of those departments of the University that started functioning in a rented building in Gulgasht Colony with their establishment of the University in 1975. It was shifted to its present premises, the Statistics and Mathematics Block at the University Campus in 1987. Presently, the Department can be compared with any top ranking teaching department of the subject in any university of Pakistan. The teaching faculty of the Department consists of eleven teachers; five of them hold Ph.D. degrees while five of them are M.Phil. Degree holders. Four faculty members, at present, are pursuing their studies for the degree of Ph.D. and among them two are expected to complete the same in near future. The Department thus has a distinction among all the universities of Pakistan with respect to number of Ph.Ds in the subject.

The use of computer for rapid processing of data is the need of time. To fulfill this need, the Department has equipped its laboratories with latest computers (Intel Core 2 Duo), multimedia projectors, scanners and audio-visual system. These laboratories provide all the facilities for Computing Statistics, Data Processing, Computer Programming and Data Analysis for research. Modern statistical packages like SAS, R, STATA, MINITAB, E-Views, and SPSS etc. are made available to the faculty members and researchers in the computer laboratory of the Department.

The Department is connected with the University Local Area Network (LAN) Server, providing internet facilities to the teachers, research scholars and the students. Printing services, on high quality printers, are also available.

The Department has a well-established library containing a variety of latest books and a collection of prominent research journals of the subject. The Department does not believe in quantity solely, therefore, good quality, expensive and rare books are also made available in the library. An audio-visual system has also been acquired to exhibit recorded lectures of experts of national and international repute to the students. Study tours of the students to various Statistics Departments/ Institutions and Organizations are also arranged by the Department as a part of their study program to highlight the importance and implementation of Statistics in practical life.

The Department has been pursuing studies upto the level of M.Sc. students since its establishment. Over 1440 students have been

awarded Master of Science in Statistics so far. Ph.D. Program in Statistics has been going on since 1995 and three scholars have earned their doctorate degrees while a number of scholars are progressing for their Ph.D. research work. Moreover, HEC awardees are also perusing for their research here as the Department has HEC accredited supervisors among its faculty. The Department started M.Phil. leading to Ph.D. program in 2001 on regular basis and 37 students have earned their M.Phil degrees while 20 candidates are doing their research work, presently.

The Department is also going to offer MS program. A Postgraduate Diploma of one-year duration in Computer Programming and Computing Statistics had also been running successfully from 1993 to 2003. The Department has a privilege of starting/ introducing the short courses in computer programming for the first time in the University.

The Department is actively involved in research activities under the supervision of the senior faculty members of the Department. The Department participates enthusiastically, in all the activities for the promotion of research in the subject everywhere in Pakistan. The presentation of a variety of research papers, seminars, and lectures delivered by the faculty members and students at different forums are the testimony of its agility.

The graduates of the Department are employed in the Government, Semi Government, non- Govt. and Private organizations.

Admission

The detail of seats available for admission is given in the Chart No. I. The admission are be made by the Departmental Admission Committee, according to the admission/ merit criteria, laid down by the University.

BS (4-Year) in Statistics

BS (4-Year) program has been running under semester system since 2002. Bachelor degree so earned by students after sixteen years of schooling will be in time line with the University accepted format of higher education and fulfills the requirements for its international recognition. After BS students are eligible for admission to MS/ M.Phil. Program.

The major aims and objectives of the BS 4-Year program in Statistics, are to develop solid foundation for the effective operational and strategic decisions using statistical theory in almost every discipline and to involve the graduates with the participation of project based activities so that they can be trained and can pursue for higher degrees and research in the field of Statistics.

Admission in BS (4-Year) program are offered only subject to the minimum of 25 students. Admissions are centralized and looked after by the Director Undergraduate Studies.

Eligibility

A candidate who has passed intermediate examination with Statistics as a subject F.Sc. (Pre-Engineering and Pre-Medical / ICS) from a Board of Intermediate and Secondary Education of Pakistan or an equivalent examination recognized by the University is eligible for admission to BS (4-year) provided that the candidate has secured at least 45% marks in the subject as well as in the aggregate of intermediate or equivalent examination.

Computation of Merit

The merit shall be determined as aggregate marks in F.A./ F.Sc. or equivalent plus 10 marks for Statistics as a elective subject plus 20 marks for Hifz-e-Quran.

Scheme of Studies Available with the Department

Elective Courses for BS (4-Years) Program for Statistics

Scheme of Studies Available with the Department

M.Sc. (Statistics)

(2-Year Program)

As mentioned earlier, the Department has been running the M.Sc program for last 35 years successfully. This is an intensive course and covers all aspects of statistical training both theoretical and practical.

Keeping in view the concern and desire of the candidates belonging to the Southern Punjab, Department of Statistics has launched M.Sc Evening Program on self finance basis. This program is helpful to those persons who could not continue their education for one or the other reasons (such as service or family circumstances). The Statues and Regulations for this program regarding admission system and examination etc. shall be the same as those already being practiced in this Department.

This program is available to every body who applies and fulfills the requirements of admission given in the prospectus. The program starts with minimum number of 30 students.

Departmental Admission Committee (M.Sc. Degree Program)

- | | |
|----------------------------|-----------|
| 1- Professor Asghar Ali | Chairman |
| 2- Dr. Muhammad Akram | Member |
| 3- Mr. Muhammad Aman Ullah | Member |
| 4- Dr. Muhammad Aslam | Secretary |

Eligibility

The candidates, who have passed B.A/ B. Sc. Examination, securing at least 45% marks in Statistics as an Elective subject as well as in the aggregate of B.A./ B.Sc. with Statistics in F.A/ F.Sc., are eligible for admission to M.Sc. Statistics Part-I class. The order of preference will be as under: -

- I) First division in BA/ B.Sc. with further order of preference as:
 - i) Statistics and Mathematics at B.A/ B.Sc. level
 - ii) Computer Science and Statistics at B.A/ B.Sc. level
 - iii) Statistics with any other subject at B.A/ B.Sc. level, but having studied Mathematics upto F.A./ F.Sc. level
- 2) Second division in B.A./ B.Sc. with further order of preference as:
 - i) Statistics and Mathematics at B.A/ B.Sc. level
 - ii) Computer Science and Statistics at B.A/ B.Sc. level
 - iii) Statistics with any other subject at B.A/ B.Sc. level, but having studied Mathematics upto F.A/ F.Sc. level.

Computation of Merit

The merit will be determined as under: - Aggregate marks of B.A./ B.Sc., plus marks obtained in Statistics, plus 20 marks for Hizf-e-Quran.

Scheme of Studies Available with the Department

MS Statistics

(2-Years program)

Aims and Objectives of MS Program

1. To motivate students to conduct statistical research independently in

- different fields and to meet the requirements of the market.
2. To enable students to pursue a Ph.D. program offered anywhere in the world.
3. To prepare students to be able to provide statistical counseling in any field of research.

MS Statistics will contain a total of 36 credit hours out of which 24(12+12) will comprise course work in the first two semesters (1st year) and final two semesters will be for thesis / research equivalent to 12 credit hours.

Detail of credit hours is as follows:-

Semester	No. of Courses	Credit Hours	Total Credit Hours
1st	4	3	12
2nd	4	3	12
3rd + 4th	Thesis/Research Work		12
Grand Total			36

The list of courses is as follows:

Scheme of Studies Available with the Department

M.Phil. Program

Introduction

Statistics is a subject that is relevant to every field of life for the collection, summarization and presentation of information in the most efficient manner. It is also used in analyzing and interpreting the results and modeling of real life situations. Highly qualified and trained statisticians are, therefore, the basic need of every nation for the development of its socio-economic setup. To meet such challenges, the Department of Statistics started M.Phil. classes in 2001. The study of M.Phil. is based on two years training. During the first & second semesters, students undergo the course work and in their remaining year, they are given research task.

During this period, the students are given full training of advanced research to meet the requirements of the degree. Moreover, this M.Phil. is a leading program towards Ph.D.

Departmental Admission Committee (M.Phil Program)

- | | |
|---------------------------|-----------|
| 1- Professor Asghar Ali | Chairman |
| 2- Prof. Dr. Zafar Mahmud | Member |
| 3- Prof. Dr. Ijaz Iqbal | Member |
| 4- Dr. Muhammad Aslam | Secretary |

Eligibility for M.Phil in Statistics

A candidate who has passed the M.Sc. (Statistics) is eligible for admission provided that he/ she has secured at least 50% marks in M.Sc. (Statistics) under Annual System or at least 2.5 CGPA under Semester System and has qualified a test equivalent to GRE (General) organized by the HEC through a testing service, such as NTS. A candidate who has passed BS (4-year) in Statistics is also eligible with at least 2.5 CGPA in BS(4-year) in Statistics provided that he/ she has passed the admission test, described above.

Scheme of Studies Available with the Department

Course Work for Ph.D. Program

Eligibility for Ph.D Statistics

As stated by Higher Education Commission (HEC) Pakistan.

Scheme of Studies Available with the Department

Department of Environmental Science

Established:	2010
Academic Programs:	Environmental Science: BS (4-Year) Program
Enrolment:	See the relevant chart at the end
Prerequisites:	F.Sc (Pre-medical) & Pre- Engineering or Equivalent with at least 45% marks

Faculty

Dr. Abdul Wahid **Chairman**

Introduction

Department of Environmental Science has been established very recently in June 2010 keeping in view the pivotal importance of this subject in Pakistan. This subject has gathered a high reputation all around the world due to its applied nature. Environmental science is a cosmopolitan subject because it deals with various branches of studies like chemistry, physics, botany, zoology, geology, geography, and public health etc. It focuses on the sources, reactions, transport, effects and fate of physical and biological species in the air, water and soil along with the effects of human activity upon these. Air, water, land, and noise pollution constantly imperil quality of life and damage the pristine environment. World today is facing serious environmental crisis, for instance, increase in the heat budget of the earth, depletion of non-renewable resources, air pollution, pollution of surface & ground waters, heavy metal pollution, massive destruction of habitats, deforestation, mining, over-fishing and radiation pollution. Ecosystem of earth is very fragile, and that man's tampering with it may, in the end, make the earth unlivable, not only for man but for all life forms.

Environmental pollution drastically reduces the productivity of plants, and is primarily involved in causing several illnesses to the humans: ranging from breathing disorders, cancer, stomach upset, skin allergies, cardiovascular problems, neurobehavioral ailments, kidney damage, typhoid, hepatitis, and most of the enteric & diarrheal diseases due to transmittance of microorganisms via the contaminated water. Atmospheric climate of major cities of Pakistan is also in grave danger due to unchecked noxious emissions by motor traffic, industries and other sources. Hence, Pakistan is plagued with a multitude of environmental problems that needs urgent attention and appropriate action to save the environment for better tomorrow. Department of Environmental Science herein BZ University, Multan will contribute devoted and skilled manpower to address the environmental problems of

the country on scientific grounds. Parallel to research activities, graduates from this discipline will impart their knowledge at graduate and postgraduate levels at various educational institutions of Pakistan and abroad.

Objectives:

Environmental awareness among society and especially in students will be of utmost importance as they are future leaders, future custodians, planners, policy makers, and educators of the environmental issues. Students will undertake basic and applied research on different environmental issues, and will assist government departments, private sector, and other relevant organizations on the framing of rules & regulations along with establishment of appropriate institutions and systems etc. Following are the key objectives of Department of Environmental Science:

1. To produce enthusiastic, skilled and motivated environmentalists
2. Addressing environmental issues and hazardous wastes/effluents
3. Solid waste management/recycling technologies
4. Causes and control of air, water and land pollution
5. Integrated pest management/biological control of diseases
6. Improving & conserving biodiversity and supporting forestry
7. Fumigation studies for screening native crops and fruits
8. Environmental impact assessment studies
9. Preservation of cultural heritage from pollutants
10. Imparting applied environmental education to society

Graduate Program in Environmental Science

Bachelor of Environmental Science (Hons.):

Environmental Science is an emerging science as a discipline which is highly inter and multi-disciplinary in nature, integrating natural sciences, social sciences and humanities in a holistic study of the world around us. The Bachelors degree program will be of four years and/or eight semesters, in the semester system. The nomenclature for this four-year degree program will be "Bachelor of Environmental Science (Hons.)" consisting minimum of 130 and maximum of 140 credit hours including compulsory courses of English, Islamic Studies and Pakistan Studies. The following courses were identified by the Higher Education Commission of Pakistan to be included in the curriculum of four-year Bachelor of Environmental Science (Hons.) degree. The proposed workload is maximum in the first year and minimum in the final year for the purpose of giving relief for research work and career-oriented activities.

Scheme of Studies Available with the Department

University College of Agriculture & Agricultural Engineering

Established

University College of Agriculture & Agri Engineering 1989

Academic Programs

The College is offering following degree programs:

1. B.Sc. (Hons.) Agriculture with specialization in Agricultural Entomology, Plant Breeding & Genetics, Plant Pathology, Forestry Range & Wildlife Management, Agronomy, Soil Science, Horticulture, Food Sciences & Technology.
2. B.Sc. Agricultural Engineering
3. M.Sc. (Hons.) Agriculture in Agricultural Entomology, Plant Breeding & Genetics, Plant Pathology, Forestry Range & Wildlife Management, Agronomy, Soil Science, Horticulture, Food Sciences & Technology
4. Ph.D. Agriculture in Agricultural Entomology, Plant Breeding & Genetics, Plant Pathology, Forestry Range & Wildlife Management, Agronomy, Soil Science, Horticulture, Food Sciences & Technology.
5. Ph. D. in Agricultural Engineering

All these programmes are offered subject to the conditions and criteria duly approved by Higher Education Commission, Board of Advanced Studies and Research, Academic Council, Syndicate & Senate.

Enrollment See the relevant chart at the end

Prerequisites

For B.Sc. (Hons.) Agriculture
F.Sc. (Pre-Medical)

For B.Sc. Agricultural Engineering
F.Sc. (Pre-Engineering)

For M.Sc. (Hons.) Agriculture
B.Sc. (Hons.) Agriculture in the relevant subject

For Ph.D. Agriculture
M.Sc. (Hons.) Agriculture in the relevant subject

For Ph.D. Agricultural Engineering
M.Sc. Agricultural Engineering or equivalent qualification

Faculty

1- DEPARTMENT OF CROP PROTECTION

i- Agricultural Entomology

Professor

Dr. Mushtaq A. Saleem Principal / HOD (CP)
(On Tenure Track System/TTS)

Assistant Professor

Dr. Muhammad Razaq Incharge Exam. Cell
(On Tenure Track System)
Dr. Shafqat Saeed (On Tenure Track System)
Dr. Mrs. Abida Nasreen (HEC Interim Placement)

Lecturer

Dr. Ghulam Mustafa Cheema On Ex-Pakistan Leave
Mr. Sarfraz Ali Shad On Study Leave
Mr. Qamar Saeed

ii-Plant Breeding and Genetics

Professor

Dr. Naveed Murtaza (On Ex-Pakistan Leave)

Assistant Professor

Dr. Syed Bilal Hussain (On Tenure Track System)
Director Student Affairs

Dr. Abdul Qayyum

Lecturer

Mrs. Itrat Noor
Mr. Waqas Malik (On Study Leave)

iii-Plant Pathology

Assistant Professor

Dr. Rashida Atiq
Dr. Samiya Mahmood
Dr. Ateeq-ur-Rehman

Lecturer

Mrs. Sobia Chohan

iv- Forestry**Associate Professor**

Dr. Din Muhammad Zahid

Assistant Professor

Dr. Muhammad Zubair (On Tenure Track System)

2- DEPARTMENT OF FOOD AND HORTICULTURAL SCIENCES**i-Horticulture****Professor**Dr. Muhammad Akbar Anjum (HOD, FHS)
Dr. Muhammad Maqbool (Foreign Faculty Professor)**Assistant Professor**

Mr. Farrukh Naveed

LecturerMr. Khalid Masood Ahmad
Mr. Ishtiaq Ahmad
Mr. Aamir Nawaz Khan (On Study Leave)
Miss Safina Naz**ii-Food Science****Assistant Professor**

Dr. Saeed Akhtar (On Tenure Track System)

LecturerDr. M. Tauseef Sultan
Dr. Muhammad Riaz**3- DEPARTMENT OF AGRONOMY AND SOIL SCIENCE****i-Agronomy****Professor**

Dr. Muhammad Bismillah Khan

Associate ProfessorDr. Hakoomat Ali (Member Syndicate/
Warden Hamzan Hall)
Dr. Nazim Hussain (Incharge Experimental Farm)**Assistant Professor**Dr. Shakeel Ahmad (Superintendent Hamza Hall)
Dr. Mubashir Hussain**Lecturer**

Mrs. Azra Yasmeen (On Study Leave)

ii- Soil Science**Professor**

Dr. Muhammad Abid

Assistan ProfessorDr. M. Zafar-ul-Hye Gondal
Dr. Muhammad Arif Ali (HEC Interim Placement)**Lecturer**Mr. Abdur Rahim
Mrs. Bushra Muqaddas**4- DEPARTMENT OF AGRICULTURAL ENGINEERING****Professor**

Dr. Jehangir Khan Sial (HOD Agri. Engg.)

Associate Professor

Engr. M. Asghar Rana

Assistant ProfessorDr. Zahid Mahmood Khan (On Tenure Track System)
Engr. Muhammad Shoaib
Engr. Muhammad Azhar Inam
Engr. Fiaz Ahmad**Lecturer**Engr. Faisal Baig
Engr. Muhammad Sultan
Engr. Hamid Mahmood**AGRICULTURAL ECONOMICS****Lecturer**

Muhammad Tayyab Tahir (On Ex-Pakistan Leave)

Introduction

Agricultural potential and specific ecological conditions of the region led to the establishment of Agriculture College of Bahauddin Zakariya University, Multan in 1989. The construction of the College building was started in 1990. At present college has independent academic blocks for Agronomy, Soil Science, Agricultural Entomology, Plant Pathology, Horticulture, Plant Breeding and Genetics, Forestry and Agricultural Engineering. In addition to this fully equipped research laboratories have been established by each department for conduct of practical and research work. In addition "Central Postgraduate Research Laboratory" and "Chrysopa Research Laboratory" have been established recently for postgraduate students.

Moreover, construction of academic block for Agricultural Economics & Biometrics and Agricultural Education & Extension departments along with 75 staff residences have been completed recently.

A boy's hostel [Hamza Hall] for 250 students and 19 residences for academic staff have also been constructed.

Now, the College is being elevated to the status of a faculty named "**Faculty of Agriculture & Agricultural Engineering**" with keen interest and auspicious guidance of Worthy Vice Chancellor Prof. Dr. Muhammad Zafarullah, and dynamic leadership of Principal, Prof. Dr. Mushtaq A. Saleem and on the intellectual input of teachers, along with eight independent departments headed by respective Chairman/ chairperson.

The syndicate has endorsed the recommendations of Advanced Studies and Research Board to the Senate for the establishment of the faculty of Agriculture and Agricultural Engineering with the following Departments.

1. Department of Agricultural Entomology
2. Department of Agronomy

3. Department of Soil Science
4. Department Horticulture
5. Department of Food Science
6. Department of Plant Breeding and Genetics
7. Department of Forestry, and
8. Department of Agricultural Engineering

The Department of Agricultural Engineering was established at the College in 2004. The department offers courses of studies leading to degree of Bachelor of Science, Master of Science and Ph. D. in Agricultural Engineering. In these degree programmes, the same fundamental courses are taught as approved by the HEC and in other Agricultural Engineering Institutions with emphasis on agricultural problems, like Water Management, Farm Machinery and Environmental Pollution etc. Seven laboratories which include Surveying Laboratory, Drawing Hall, Fluid Mechanics Laboratory, Soil Mechanics Laboratory, Engineering Mechanics Laboratory, Environment, Water Quality Laboratory and I.C. Engine and Tractor Laboratory have been set up for conduct of practical work to the students of Agricultural Engineering while the establishment of other laboratories is in process. The new PC-1 for the Department of Agricultural Engineering has been approved by the HEC and new buildings, laboratories and other infrastructure are being established. There are following three Disciplines under the Umbrella of Agricultural Engineering and Technology:

- i) Water Engineering and Management (WEM).
- ii) Farm Machinery of Energy (FME).
- iii) Structure and Environmental Engineering (SEE).
- iv) Food Process Engineering (FPE).

An Independent Administration Block, central library, Museum, Auditorium and a Civic Center have been completed and are functional straight away.

At present the Faculty has **49 regular/ full time teachers** and a number of visiting teachers borrowed from various departments of the University, Agriculture Departments & Institutes at Multan. Out of 49 regular /full time teachers, **30 are Ph.D. degrees holders**, while 16 teachers are enrolled for Ph.D. at various universities. Sixteen teachers have done their doctorate or post doctorate from various universities of technologically advanced countries like, Australia, China, Japan, Korea, UK and USA, having a large number of research publication (total of 0000 at the end of year 2009) of high impact factor. One Professor and six Assistant Professors are also serving under Tenure Track System of HEC and one Professor is taken from USA under Foreign Faculty Program of HEC.

Experimental/Research Farm

Agricultural Experimental Farm of 40 acres is attached with the Faculty for demonstration of crop production practices, and 20 acres are reserved for faculty research. Research work has been initiated on various aspects of field and horticultural crops. The emphasis is on the development of improved varieties of crop along with improvement of cultural practices, cropping system, weed control, insect toxicology, insecticide resistance, integrated pest management strategies, drip irrigation system, tunnel farming and Agro-forestry suited to the local conditions.

Nine acres of mango and citrus orchard and five acres of tree plantation with mixed indigenous species have been established under drip irrigation system. Six rows of different tree species along with the College boundary wall irrigated with bubbler and drip irrigation system have also been established for clean and green environment.

College Library

The Faculty library has been shifted in new building and more than six thousand volumes of latest books on various disciplines of agriculture and allied sciences are available. It has been converted into fully air-conditioned library to facilitate the readers.

Admission

The following admission committee of the College has been constituted to make admissions according to the admission/ merit criteria laid down by the University.

Committee for Admission to B.Sc.(Hons.)Agri.

Prof. Dr. Mushtaq A. Saleem	Chairman
Dr. Muhammad Abid	Member
Dr. Din Muhammad Zahid Khan	Member/ Secretary

Committee for Admission to B.Sc. Agricultural Engineering

Prof. Dr. Mushtaq A. Saleem	Chairman
Prof. Dr. J.K. Siyal	Member
Engr. Hamid Mehmood	Member
Engr. Muhammad Shoaib	Member/ Secretary

There will be independent admission committees for admission to post graduate courses [M.Sc.(Hons.) and Ph.D.] for each department constituted by competent authority on recommendation of the respective HODs/ Chairman/ Chairperson.

Admission Criteria

i) B.Sc. (Hons.) Agriculture

The admission to B.Sc. (Hons.) Agriculture will be made by the College Admission Committee according to the admission/ merit criteria laid down by the University.

Eligibility

An applicant seeking admission to B.Sc. (Hons.) Agriculture must fulfill the following eligibility requirements:

- He/she should have passed the Intermediate (F.Sc. Pre-Medical) Examination with Chemistry, Biology and Physics from a Board of Intermediate and Secondary Education of the country, or an equivalent examination recognized by the University.
- He/she should have obtained at least 50% i.e. 550/1100 marks, in F.Sc. (Pre-Medical), excluding 20 marks for Hafiz-e-Quran.

Both Male and Female are eligible to apply for admission to B.Sc. (Hons.) Agriculture.

Computation of Merit

The merit of applicants will be determined on the basis of marks obtained by them in the Intermediate (Pre Medical) or equivalent plus 20 marks for Hafiz-e-Quran.

ii) B.Sc. Agricultural Engineering

Eligibility

An applicant seeking admission to B.Sc. Agricultural Engineering must fulfill the following eligibility requirements:

- He/she should have passed the Intermediate (F.Sc. Pre-Engineering) Examination with Chemistry, Mathematics and Physics from a Board of Intermediate and Secondary Education of the country or an equivalent examination recognized by the University. However, Intermediate with Physics, Mathematics and Computer Science will not be eligible for admission to B.Sc. Agricultural Engineering.
- He/she should have obtained at least 60% i.e. 660/1100 marks in F.Sc. (Pre-

Engineering), excluding of 20 marks for Hafiz-e-Quran

- He/she must have appeared in the entry test for Session 2010 arranged by the University of Engineering and Technology, Lahore, if applicable.

Seats for Diploma Holders

For admission against seat reserved for the holders of 3 years Diploma of Associate Engineer, the candidate should have passed diploma examination of a Board of Technical Education in Civil or Mechanical or Automobile & Farm Machinery Technology or electrical/electronics with minimum of 60% aggregate marks. However, the three years Diploma qualification equivalent to F.Sc. (Pre-Engineering) will not be considered for admission on any other category (open merit, or reserve seat) except explained / notified otherwise by a competent authority.

Equivalent Examinations:

The University recognizes the following examinations as equivalent to the Intermediate (Pre-Engineering) Examination of the Pakistani Boards of Intermediate and Secondary Education:

- Cambridge Overseas Higher School Certificate with Physics, Chemistry and Mathematics;
- British General Certificate of Education (Advanced Level) with Physics, Chemistry and Mathematics;
- F.Sc. (Pre-Medical) with Mathematics as an additional subject.
- American High School Graduation Diploma (12th Grade) or equivalent with Physics, Chemistry and Mathematics. Both Male and Female are eligible to apply for admission to B.Sc. Agricultural Engineering.

Both Male and Female are eligible to apply for admission to B.Sc. Agricultural Engineering.

Computation of Merit

The merit of applicants will be determined on the basis of admission marks obtained by them in these examinations:

A) For Applicant with H.S.S.C (Pre-Engineering) as the highest qualification

- | | |
|---|-----|
| i) H.S.S.C. (Pre Engineering) or equivalent plus 20 marks for Hafiz-e-Quran | 70% |
| ii) Entry Test Marks | 30% |

B) For Seat Against Diploma of Associate Engineering as the highest qualification

- | | |
|---|-----|
| i) Three year diploma of Associate Engineer plus 20 marks for Hafiz-e-Quran | 70% |
| ii) Entry Test Marks | 30% |

Admission to B.Sc.(Hons.) Agri. (Evening Programme)

Evening programme in the following Major subjects of B.Sc.(Hons.)Agri. is being offered w.e.f. new admission session 2010-14. These students will be placed in these departments after passing 4th semester and no option will be allowed other than these major departments. The placement of the students will be equal (No. of students) in all major subjects on merit keeping in view their preferences for the subjects in order. For Session 2010-14 following major will be offered

Agronomy
Entomology
Horticulture, and
Soil Science

For session 2011-15, following major will be offered after passing four semesters. And this alternate arrangement will continue till new policy guideline is provided and notified otherwise by competent authority.

Plant pathology
PBG
Food Science

Forestry

It was unanimously decided that 80 seats will be allocated for evening programme without affecting seats in the morning programme.

Fee per semester for evening programme will be Rs.18000/-

Fee for Special Admission Charges will be Rs.75000/-only for admission to B.Sc.(Hons.)Agri.

Special Admission charges for a seat for admission to B.Sc. Agri. Engineering will be Rs.100000/-only

After graduation employment opportunities

Many government, semi-government and private organizations offer job opportunities to Agriculture graduates at very attractive pay packages. Some major organizations include; Provincial Government's Department of Agriculture (Extension, Research, and other directorates), District Governments and other autonomous bodies such as CDA, LDA, etc., Pakistan Agricultural Research Council, Over 200 national and multinational agrochemical companies, Fertilizer Companies, Forestry and Horticultural related organizations, and overseas recruiting agencies.

iii) M.Sc. (Hons.) Agriculture

Two years degree program of M.Sc. (Hons.) is offered in the disciplines of Agricultural Entomology, Agronomy, Horticulture, Plant Breeding & Genetics, Plant Pathology, Soil Science, Forestry, and Food Science & Technology.

This is an evening and self supporting programme and the conditions regarding financial liabilities laid by the University [BZU] will apply. A separate advertisement will appear in national press for admission to M.Sc.(Hons.). There is also provision for M.Sc. (Hons.) leading to Ph.D. after fulfilling certain conditions laid by the University and HEC. The detailed rules for this programme

are available with the University and College Administration.

Eligibility

An applicant seeking admission to M.Sc.(Hons.) Agriculture must fulfill the following eligibility requirements:

- He/she should have passed the B.Sc. (Hons.) Agriculture in the relevant subject with minimum CGPA of 2.20 from a recognized University
- He/she should have qualified the test equivalent to GRE (General) organized by the HEC through NTS and any other test adopted /conducted by the University.
- He/she should be below the age of 45 years on the last date fixed for receipt of applications

Computation of Merit

Merit shall be determined as per following formula:

Academic Qualification:	40%
GRE type test conducted by NTS:	50%
Publications:	10%
Total	100%

- For academic qualifications, every first, second and third division shall carry 10, 5 and 0 points/ marks respectively.
- For B.Sc. (Hons.) Agriculture, the credit of divisions for Matric and Intermediate shall be same while 20 marks /points shall be specified for B.Sc. (Hons.) Agriculture Examinations, i.e. 2.5 marks for 50% marks and 5 marks for 65% marks in each year.
- Each publications, in a HEC recognized research journal, shall be awarded 5 marks upto a maximum of 10 marks.
- Selected candidates shall get themselves registered as per rules of the University.

iv) Ph.D. in Various Subjects at University College of Agriculture

University College of Agriculture is offering Ph.D. in the subjects of Agricultural Entomology, Agronomy, Horticulture, Plant Breeding & Genetics, Plant Pathology, Soil Science, Forestry, Horticulture and Agricultural Engineering observing all criteria duly approved and notified by HEC.

Eligibility

An applicant seeking admission to Ph.D. in various disciplines at University College of Agriculture and Agricultural Engineering must fulfill the following eligibility requirements:

- He/she should have passed the M.Sc. (Hons.) Agriculture in the relevant subject and M. Sc. Agricultural Engineering or equivalent qualification, with minimum CGPA of 3.0 from a recognized University.
- International GRE (Subject) or equivalent test passed before admission.
- A Ph.D. Scholar is required to complete course work of up to 18 credit hours and must qualify
- All applicants have to fulfill the conditions laid by HEC from time to time.

General Rules for Merit Computation for B.Sc. (Hons.) Agriculture and B.Sc. Agricultural Engineering

Credit for Hafiz-e-Quran

Twenty marks are added to the academic marks in the H.S.S.C or equivalent examination of the applicant who is Hafiz-e-Quran. The candidate gets the benefit only if he has:

- Filled in the necessary column provided in the application form, and
- Submitted the documentary proof of Hafiz-e-Quran

- Hafiz-e-Quran applying for admission to B.Sc.(Hons.) Agriculture or B.Sc. Agricultural Engineering will have to appear before a committee constituted by the Vice Chancellor and get a certificate from Prof. Dr. Saeed-ur-Rehman or Prof. Dr. Muhammad Akram Rana of Islamiat Department after passing the test for Hifz.

Determination of Merit in case of Equal percentage of Admission Marks:

If two or more applicants have equal percentage of admission marks (up to three places of decimal), they shall be treated at par and shall be admitted.

Procedure for the Selected Candidates

A list of selected candidates will be displayed on the Notice Board of the University College of Agriculture. The number of lists to be displayed for this purpose will be mentioned in the prospectus. No candidate will be informed individually about his/ her selection for admission/ withdrawal or cancellation of admission, except displayed on the Notice Board of the University College. Subsequently, the intimation about any vacant seat will also be displayed on the notice board and those candidates will be considered for admission on merit (after approval by a competent authority) against such seat(s) who will be physically present on the specified date mentioned in such notice. All the candidates falling below the merit are considered on waiting list and no separate waiting list will be displayed.

Depositing of Dues and Documents

The schedule for payment of fees and submission of documents will be displayed on the Notice Board of the College or may be given in the Prospectus. A selected candidate is required to pay the University fees and show the following documents in original

[also given in checklist at the end of admission forms] to the Secretary Admission Committee:

- Medical Fitness Certificate duly signed and stamped by the BZ University Medical Officer (not by any other Physician /doctor of any government or private hospital).
- Original certificates of Matric, F.Sc./ Diploma of Associate Engineer.
- Result Card of the Entry Test if applicable.
- Original Domicile Certificate / CNIC
- Affidavit (Undertaking) given at the end of prospectus, duly completed and signed which can be detached.
- All other rules and regulations amended from time to time and notified by HEC and Bahauddin Zakariya University, Multan will also apply.

Enrollment

Each student shall enroll himself in each semester for all the credit hours prescribed/ offered for those semesters. The schedule will be displayed on Notice Board of the College from time to time.

Re-admission

The names of regular student shall be dropped from the rolls of the College/ University, if: He/she absents himself/herself from the class without proper sanction for a period of fourteen working days. Provided that if the cause of absence for fourteen days is explained to the satisfaction of the Principal of the Constituent College concerned and such a student may be readmitted within ten working days after his name was dropped from the rolls, by the Principal.

Provided further that in order to avoid any hardship the Vice-Chancellor may allow admission of such student within 10 working days after the expiry of the aforesaid period.

Uniform Semester Rules

Uniform Semester Rules as notified vide No. 99 Acad/Sem/ Regu /3176 dated June, 14, 2004 and amendments made by the B.Z. University from time to time are applicable herewith. Copy of the same is available in the Office of Principal, University College of Agriculture / Secretary, Admission Committee.

B.Sc. (Hons.) Agriculture

Scheme of Studies Available with the Department

B.Sc. Agriculture Engineering

Scheme of Studies Available with the Department

M.Sc. (Hons.) Agriculture

Scheme of Studies Available with the Department

M.Sc. Agriculture Engineering

Scheme of Studies Available with the Department

Ph.D. in Agricultural Engineering

Scheme of Studies Available with the Department

Centre for Undergraduate Studies

BS-4 Year (Basic Sciences)

Established	2002
Academic Program	BS (4-Year)
Enrollment	BS (4-Year) See the relevant chart at the end
Prerequisite	Intermediate Examination (Pre-Medical, Pre-Engineering, General Science) or equivalent examination recognized by the University/Board
Faculty	
Professor	
Dr. Ejaz Ahmad	Director

Introduction:

During the recent years, rapid advancement in the field of science and technology has demanded changes in the existing curricula for degree programs currently offered by various universities of the country. The Center for Undergraduate Studies (BS 4-Year Program) was therefore, established in 2002 in accordance with the recommendations of the Higher Education Commission and the National Curriculum Revision Committee. This program has been running under semester system in the disciplines of 1) Botany 2) Chemistry 3) Mathematics 4) Physics 5) Statistics and 6) Zoology, since September 2002. Bachelor Degree so earned by students after sixteen years of schooling will be in line with the universally accepted format of higher education and fulfills the requirements for its international recognition. After BS the students will be eligible for admission to MS program of minimum one year duration as per international practice. Broad based curricula with emphasis on general education and integrated scheme of studies has been adopted to meet the challenges of modern society.

The BS-4 Year program is in parallel to those of Bachelor of Medicine, Bachelor of Engineering, and Bachelor of Agriculture where top class students of intermediate class get admission after a thorough scrutiny. This program is aimed to produce professional scientist in the said disciplines. The BS 4-Year program is focused to develop the linkage between the local and foreign institutions, encouraging long term sustainable scientific collaborations. The long term goal is to uplift

the graduate programs in the national educational institutions and bring them at par with the international standard. BS 4 Year is an absolutely new program, introduced with a view to enable the students of this region to compete with other students at International level.

Knowledge of the offered major science disciplines (Botany, Chemistry, Mathematics, Physics, Statistics, Zoology) is central to academic research activities which are curiosity oriented. It is to, because:-

- Curiosity is a vital parameter of the center because humans are naturally curious.
- Curiosity is useful to stimulate the development of greater understanding.
- Curiosity has two important features:
 - ✓ It produces intellectual models of how the universe works, economizing what we need to know to act wisely under diverse conditions.
 - ✓ It fosters technology which can make the activity of life more effective.
- Undergraduate Studies branches out to all sciences including Engineering and Medicine.
- Undergraduate Studies employs:
 - ✓ Mathematical logic
 - ✓ Deductive reasoning
 - ✓ Developed intuition
 - ✓ Careful observation
 - ✓ Designed experimentation
 - ✓ Model building
 - ✓ Intellectual extrapolation
- The major offered in Undergraduate Studies Centre provides a core of education in several areas with sufficient flexibility aiming to higher study, research and teaching.

MISSION

The Undergraduate Studies Center is committed to:

- quality education.
- develop students understanding about the world.
- create logical approach through skills and tools.
- develop confidence in their abilities.
- the persuasion of truth, of knowledge and its implementation.

VISION

Maintain:

- Standard of excellent teaching.
- Effective learning environment.
- Quality of applied research.
- Outstanding community services.

GOALS AND OBJECTIVES

- Develop high quality professionals and scientists that are committed to pursuit of excellence, and are endowed with vision, courage and dedication.
- Improve academic standard in this region through the generation, assimilation and dissemination of knowledge.
- To prepare people to serve as intellectual resource base of the country.

CORE VALUE

As a faculty member of Center of Undergraduate Studies, we have close interaction with our students.

CURRICULUM AFFAIRS

Center for Undergraduate Studies aims to be a center of academic excellence at the local, regional and international levels. It strives to be a modern center that can offer the best education in the 21st century. From this prospectus, the center focuses on the students as the center of the educational process. To reach excellence in education, the center has started an ambitious plan for assessing the educational outcomes systematically and continuously since 2002.

It meets all the requirements of 21st century in the area of quality education, research & development.

GENERAL INFORMATION

Degree Offered:

- BS (4-Year)

Disciplines Offered:

- Botany
- Chemistry
- Mathematics
- Physics
- Statistics
- Zoology

Eligibility

A candidates who has passed intermediate examination with science from a Board of Intermediate and Secondary Education of Pakistan or an equivalent examination recognized by the university with one elective subject corresponding to offered major discipline chosen by the candidate, is eligible for admission to BS (4-Year) in the offered major disciplines (1st semester) provided that the candidate has secured at least 45% marks in the subject of his/her chosen major discipline as well as in the aggregate of Intermediate of equivalent examination.

Computation of Merit

The merit shall be determined as aggregate marks in F.A./F.Sc. or equivalent plus marks in the concerned subject plus 20 marks for Hifz-e-Quran.

Extra Curricular Activities:

Besides curricula, the co-curricular activities are also indispensable for harmonizing the material environment and erudition. Such activities help in bridging the gap between academics and the need to socialize the students with different aspects of society and culture. Keeping this need in mind, an organization named Peace Savers Union has been established by the students of Undergraduate Studies to encourage and provoke the creative faculty and thought process, besides the providing the communication skills and confidence of the students. The objective of this organization is to enlighten the students and to make them aware of the societal milieu.

Organizing Committee:

Dr. Ejaz Ahmed Patron in Chief
Director, Undergraduate Studies.

Coordinator of Depts: Advisor

The union aims to arrange different competitions of fine arts, debates, poetry, etc. It also intends to organize plays, mushaira, discussions and different cultural activities.

BS 4-Year in Zoology

Scheme of Studies Available with the Department

BS 4-Year in Botany

Scheme of Studies Available with the Department

BS 4-Year in Chemistry

Scheme of Studies Available with the Department

BS 4-Year in Mathematics

Scheme of Studies Available with the Department

BS 4-Year in Physics

Scheme of Studies Available with the Department

BS 4-Year in Statistics

Scheme of Studies Available with the Department

BS 4-Year in Environmental Sciences

Scheme of Studies Available with the Department