

Sindh Agriculture University Tandojam

PROSPECTUS COMMITTEE 2021-2022



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Prof. Dr. Allah Wadhayo Gandahi, Member



Mr. Gulsher Lochi, Member



Dr. Mansoor Ahmed Depar, Member



Mr. Ahmed Khan Mangi, Member/Secretary



Dr. Habibullah Magsi, Member



Mr. Sajid Aziz Samo, by Special Invitation



PROSPECTUS

2021-2022

UNDERGRADUATE DEGREE PROGRAM



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MESSAGE FROM THE VICE-CHANCELLOR

On behalf of our faculty, staff and students, welcome to Sindh Agriculture University (SAU) website. In brief, the SAU was established in 1977 through the up gradation of the then Sindh Agriculture College. The university has achieved robust growth over the intervening period while pursuing its mission "Committed to contributing towards self-sufficiency and sustainability in agriculture to ensure food security by producing trained manpower, conducting problemoriented research and establishing effective linkages with the stakeholders".



By now, SAU has produced over 44000 graduates and postgraduates who have been playing a pioneering role in the development of the agricultural system and agro-based economy of the country. They are also involved in various national and international services throughout the globe. The university has a current enrollment of over 8000 students. We are home to a community of over 257 distinguished faculty members with regional, national, and global connections, who take interdisciplinary approaches to offer 68-degree programs at the undergraduate, master, and Ph.D. levels. I am extremely proud of the rich tradition of providing practical, experience-based agriculture education tailored to market needs. Most of the programs incorporate experiential learning, community service, and wide-ranging regional, national, and global experiences.

Located in an economically and ecologically important agricultural zone of the province, SAU offers unique opportunities for students to engage with farming communities and stakeholders, equip with practical and field-oriented skills through agriculture and livestock farms and well-equipped labs, participate in internship opportunities with local partners and agri-business entities, and prepare for contribution to the agriculture sector in Sindh and the country at large. Another added dimension to the learning environment is that two constituent colleges and a sub-campus of the university are in diverse agro-ecological zones of Sindh at Dokri, Khairpur, and Umerkot. All along, the students are supported through career counseling services to shape up their careers while at the university and connect them with relevant organizations for their placement in suitable jobs after graduation.

The SAU enjoys enthusiastic backing from alumni, businesses, professionals, and the surrounding community. I wish to recognize and thank SAU Alumni and Friends for their continued support for the growth of the university and in making it highly relevant to clientele needs. The university also benefits from its location at Tandojam, a center of agriculture industry and trade that places a high value on ingenuity and entrepreneurship.

As Vice-Chancellor and alumnus of SAU, my mission is to take out my alma mater to the next level of excellence where all can feel pride. I am honored to have some of the very best in the faculty. I am also fortunate to have very experienced officers and staff in the university. Similarly, the student body of our university has all the potential to excel with sheer hard work and commitment. Let us all pledge together to champion the principles of scholarship, research, professionalism, and diligence. Let us commit ourselves to excellence in teaching, learning, research, and administration. Let us make our generations proud of ourselves. I would like to cordially invite all of you who are interested in expanding your knowledge and enriching your careers to explore SAU further either online or through a campus visit.

Regards.

Prof. Dr. Fateh Muhammad Marri,

Vice-Chancellor,

Sindh Agriculture University Tandojam, Sindh, Pakistan.

THE UNIVERSITY



Sindh inherits the fertile Indus Valley, which is well known for its glorious past. The excavations at Moen-Jo-Daro speaks about the prosperity of Sindh to produce agricultural commodities. Sindh was the breadbasket and a net exporter of food supplies to the entire sub-continent during the nineteenth century. Located in the extreme south of Pakistan as one of the five provinces. Sindh presents a variety of soil and climatic conditions compatible for growing various cereal, fruits, and vegetable crops and maintenance of a large livestock population.

With the construction of the Sukkur Barrage in Sindh Province (1932), the need for education and training in agricultural professions was realized and translated in the form of the establishment of King George-V Institute of Agriculture at Sakrand, District Shaheed Benazir Abad (Nawab shah) in 1939. Initial 02-year Diploma course was offered, later converted to a three-year B.Sc. Degree. The institute was shifted to its present site in 1954 and was named Sindh Agriculture College Tandojam with specializations in various fields of Agriculture and Animal Sciences.

The college was able to promote agricultural education steadily in the province paving the way for raising the status of the college to the full-fledged university named Sindh Agriculture University, Tandojam established under the Sindh Assembly Act on 1st March 1977, with the main objective of providing the qualified manpower in Agriculture, Engineering and Animal and Veterinary Sciences, well equipped with academic as well as problemoriented research and capable enough to extend latest agricultural technology to the doorstep of farmers eventually leading to increased agricultural production.

MISSION

The university is committed to inculcate among students a sense of discipline, organization, refinement of their vision and skills, and help them graduate with maturity, distinction, and confidence to be useful citizens of society, to realize the dream of sustainability in agriculture for food security and safety.

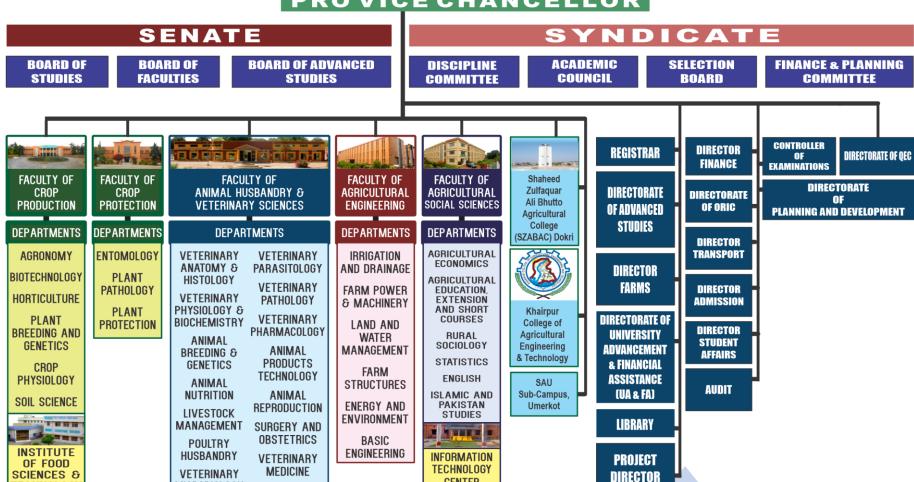
LOCATION

The university is in Tandojam town which is 180 KM North-East of Karachi, the largest city of Pakistan, and 15 KM East of Hyderabad city on Hyderabad-Mirpurkhas Dual Carriageway, Tandojam. Karachi & Hyderabad are the closest airports. However, it is interconnected with all major cities of Pakistan through road, rail, and wire. The climate of Tandojam is arid & sub-tropical. Summers are moderately hot, and winters are cool.



ORGANIZATIONAL CHART OF SINDH AGRICULTURE UNIVERSITY TANDOJAM





CENTER

TECHNOLOGY

MICROBIOLOGY

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ADMINISTRATIVE/ACADEMIC HEADS				
Syed Murad Ali Shah Chief Minister Sindh/Chancellor	Prof. Dr. Aijaz Hussain Soomro (PhD-UAAR-PK) Director, Institute of Food Sciences & Technology	Mr. Muhammad Ashraf Rustamani (MScUS- PK) Director Campus Security		
Mr. Muhammad Ismail Rahu Minister Universities & Boards, Climate Change & Coastal Development Department	Dr. Mansoor Hyder Deeper (PhD-Germany) Director, Information Technology Centre	Prof. Dr. Zahoor Ahmed Soomro (PhD-SAU-PK) Director Seed Production & Development Center		
Prof. Dr. Fateh Muhammad Marri (PhD-SAU-PK) Vice Chancellor, SAU Tandojam	Mr. G. M. Qureshi (MA-US-PK), Registrar	Dr. Khadim Hussain Wagan (PhD-SAU-PK) Hostel Provost		
Prof. Dr. Qamaruddin Chachar (PhD-UK) Dean, Faculty of Crop Production	Prof. Dr. Altaf Ali Siyal (PhD-UK) Director ORIC	Dr. Abdul Wahid Baloch (PhD-China) Director Students Affairs		
Prof. Dr. Aijaz Ali Khooharo (PhD-SAU-PK) Dean, Faculty of Agricultural Social Sciences	Prof. Dr. Muhammad Ismail Kumbhar (PhD-SAU-PK) Director, University Advancement & Financial Assistance	Mr. Manzoor Ali Lakhair (M.ScUS-PK) Director Planning & Development		
Prof. Dr. S. Muhammad Ghiasuddin Rashdi (PhD-UAF-PK) Dean, Faculty of Animal Husbandry & Veterinary Sciences	Mr. Riasat Ali Kubar (ME-SAU-PK) Director QEC	Mr. Ghulam Hyder Joyo (MLS-US-PK) Librarian		
Prof. Dr. Jan Muhammad Marri (PhD-SAU-PK) Dean, Faculty of Crop Protection & Campus Director, SAU Campus, Umerkot	Mr. Aneel Kumar (ICMAP) Director Finance	Dr. Faisal Ansari (MBBS-LUMHS-PK) Incharge SAU Dispensary		
Prof. Dr. Naimatullah Leghari (PhD-SAU-PK) Dean, Faculty of Agricultural Engineering	Syed Jawad Hussain Shah (MA-US-PK) Director Farms	Mr. Manzoor Ali Magsi (BE-MUET-PK) Director Transport		
Prof. Dr. Muhammad Ibrahim Keerio (PhD-UK) Principal, KCAET, Khairpur Mir's	Mr. Anwar Hussain Khanzada (MHPed-US-PK) Director Sports	Mr. Suhrab Gul Thaheem Incharge, Computerization and Networking Section		
Prof. Dr. Allah Wadhayo Gandahi (PhD-Malaysia) Incharge Principal Shaheed Z. A. Bhutto Agricultural College, Dokri	Mr. Ahmed Khan Mangi (MA-US-PK) Director Admissions	Mr. Zahoor Ahmed Patoli (B.Com-US-PK) Resident Auditor		
Prof. Dr. Abdullah G. Arijo (PhD-UK) Advisor (Academics) to Vice-Chancellor	Engr. Riaz Ahmed Soomro (BE-MUET-PK) Project Director	Mr. Gulsher Lochi (MA-US-PK) Public Relation Officer		
Prof. Dr. Zia-Ul-Hassan Shah (PhD-UAF-PK) Advisor (Planning & Development)	Engr. Mumtaz Ahmed Jakhro (ME-SAU-PK) Controller of Examination			

GRADUATE DEGREE PROGRAMS

The graduate degree programs are offered by all five faculties, Institutes, affiliated collages, and SAU Sub-Campus at Umerkot. The Faculty of Agricultural Engineering offers a degree of B.E. (Agriculture). A composite professional degree of Doctor of Veterinary Medicine (D.V.M.) is offered by the Faculty of Animal Husbandry and Veterinary Sciences. The Faculty of Crop Production offers B.Sc. (Agri.) Hon's degree in the subject areas of Soil Science, Agronomy, Crop Physiology, Plant Breeding & Genetics, Horticulture, and Biotechnology. Whereas B.Sc. (Hons) four-year degree programs is offered by Institute of Food Sciences & Technology. The Faculty of Crop Protection offers B.Sc. (Agri.) Hon's degree in Entomology, Plant Pathology, and Plant Protection. The degree of B.Sc. (Agri.) Hons in Agricultural Economics, Rural Sociology, Applied Statistics, and Agricultural Education & Extension, is offered by Faculty of Agricultural Social Sciences. The Information Technology Centre offers a four-year BSIT (Hons) degree in Information Technology, besides diplomas and short trainings in various Information Technology disciplines. Moreover, Shaheed Zulfigar Ali Bhutto Agricultural College (SZABAC) Dokri and SAU Sub-Campus Umerkot offer B.Sc. (Agri.) Hons. and Khairpur College of Agricultural Engineering and Technology, Khairpur Mir's offers degree B.E. in Agricultural Engineering.

ACADEMIC CALENDAR

Each academic year shall start from January and comprises of two semesters (Spring and Fall) in all the five faculties of the University, the Information Technology Centre (ITC) and the Institute of Food Sciences & Technology (IFST). The duration of each semester is 20 weeks distributed as one week for registration, 14 weeks of actual teaching, two weeks for examination preparation, while remaining 3 weeks are meant for conduct of semester examinations. An optional, 10-12 weeks summer semester (as part of Academic Year) shall be offered to students to cover failing and or deficiency courses or to improve poor grades.

ELIGIBILITY CRITERIA FOR ADMISSION TO GRADUATE DEGREE PROGRAM

To be eligible for admission to various graduate degree programs, candidates must hold a minimum qualification of Intermediate Science (Pre-Medical, Pre-Engineering, Pre-Computer) or equivalent examination with grade "C" or above (at least 50% marks) are eligible in different faculties depending upon the requirement of each faculty, ITC & IFST as specified in each one's profile.

STUDENTS COUNSELING AND PLACEMENT SERVICES

Students counseling and placement center is responsible for guiding and counseling the students for getting admission in degree programs of their choice depending upon the availability of seats and other related factors. The center is also responsible to fetch the jobs for the university graduates in various public and private organizations. In this context, the center will maintain the record of addresses / contact numbers of all passing out graduates to keep them well informed of their proper placement in various jobs commensurate with their qualifications. It will also monitor the market demand of our graduates and will guide them to start their career in the disciplines, where they can seek suitable jobs immediately after their graduation. It will also be responsible for solving day to day problems of the university students.

DIRECTORATE OF STUDENT AFFAIRS

This directorate facilitates the local and foreign students for seeking admission to this university, accommodation, local problems, visa facilities, etc.

BANK

A full-fledged branch of Habib Bank Limited is situated adjacent to administration block which provides all sorts of banking facilities to the staff members and students.

POST AND TELEGRAPH SERVICES

University has a well-staffed post office on the campus that provides all the necessary facilities including telegraph service.

COMPUTING, INTERNET AND INTRANET FACILITIES

Information Technology Centre (ITC) was established in 2002 to impart degree programs, PG Diploma, short term diploma and short courses of varying duration to the students of this university in particular and to the youth of the province of Sindh in general. More than 100 latest computers are available along with all necessary peripherals. The faculty and students particularly the postgraduate students are provided the internet and intranet facility for literature search. The facility for data analysis is also provided to the postgraduate students and the faculty. The Higher Education Commission (HEC) has provided the internet connectivity under Pakistan Educational and Research Network (PERN). The university has its own website. The address is given at the end of this prospectus, where in all the information regarding the university is displayed. The e-mail facility is also available for the students and the faculty. Under the mega project, "Computerization and Networking Enhancement Project of SAU" all the faculties, departments, library, administration, Directorate of Advanced Studies and Research (DASR) have been interconnected together through intranet and further integrated with the existing internet facility at the ITC through Smart University Project by HEC. More than 150 PCs are procured for the faculties and departments to establish computer labs in each faculty, library, DAS, Quality Enhancement directorate and administration block to provide internet access to all of them at their doorstep for the postgraduates and researchers

CAMPUS SECURITY

To address security concerns of the staff and students residing on campus, a security system operates round the clock under the supervision of highly skilled manpower under the supervision of Director Campus Security to provide secured environment at campus.

UNIVERSITY PUBLICATIONS

Sindh Agriculture University publishes biannually Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences (PJAAEVS), a yearly Sarang Student Magazine, SAUNI Newsletter and Seerat-ul-Nabi Islamic Magazine for spiritual inspirations of students. Research papers, popular articles and significant writings of the faculty and students are published in these periodicals.

FINANCIAL AID

The deserving students are awarded scholarships, free ships, or cash grants by the university. Some scholarships are also allocated by the Directorates of Education. The District Education Boards of Sindh also provide some scholarships every year for meritorious students of their districts. The Government of Sindh also grants scholarships to the deserving students on poverty cum merit basis. Financial assistance is also provided from Bait-ul-Mal.

The scholarships and free ships, etc. are awarded for one academic year. The continuation of the financial aid, however, is subject to a student's satisfactory performance each year. Scholarships to the students of the province of Baluchistan, KPK and Gilgit Baltistan are awarded by their respective governments through their Directorates of Agriculture and Animal Husbandry. Banks and other financial institutions also grant loans to the meritorious students on very soft terms of payment.

In addition to the above provisions, scholarships are also granted on poverty basis under the HEC-USAID and HEC-JAICA need-based scholarships program. These scholarships cover almost entire expenditure of student including tuition fees, hostel fees, transportation, books, and other expenses. Job Opportunities for the Graduates of the University

The prime motive behind the establishment of the University is to promote rapid transfer of technology to the farming community through a continued output of graduates and postgraduates. The graduates disseminate the modern technical know-how to the farmers to boost up agricultural productivity.

The main job opportunities are as under: Agricultural graduates and postgraduates may be taken up to work as farm managers in Agricultural Estates. Work as specialists in various disciplines of Agriculture and allied sciences in public and private sector organizations, autonomous and semiautonomous bodies viz, Zarai Tarqiati Bank (ZTBP) of Pakistan, Pakistan Agricultural Research Council (PARC), Pakistan Council for Research on Water Resources (PCRWR), WAPDA, Fruit Preservation and Grading

Industries, Veterinary Pharmaceuticals, Animal Feed Industries, etc. Their services can also be utilized in provincial and federal departments of Agricultural Extension, Research, Teaching, Fisheries, Forestry, Cooperatives, Animal Husbandry Extension Services, Veterinary Research Institutes, Poultry Research Institutes, Agricultural Engineering, Plant Protection, Plant and Animal Quarantine, Pakistan Central Cotton Committee, Public Parks and Gardens, Agricultural Tools and Machines, Seed Corporations, EPA, SCARP, BOM, Drainage Research Centers, PLAC, Sindh Sugar Corporation, Pakistan Atomic Energy Commission, and other departments.

They may be taken up as agriculture teachers/subject specialists to teach agriculture and agro-technical courses in High Schools and other vocational institutes of education departments.

The job-oriented graduates can share the business and management of agro based industries like fertilizers, pesticides, fungicides, herbicides, sugar and jute mills, cotton factories, feed mills (Livestock and Poultry), veterinary pharmaceuticals, and milk and meat processing plants.

They can also find access to the departments of Agricultural Census, Agricultural Marketing, Pakistan Broadcasting, and other corporations and commercial Banks, Agro-Economic Research, and Social Welfare Departments.

Job opportunities may also be availed for the graduates of this University in various special projects sponsored by agencies like the National Planning Commission, USAID, FAO, LEAD, Ford Foundation, National Talent Pool, and agriculture consultancy firms.

Agricultural degree holders may seek employment in foreign countries, especially the less developed countries with ongoing agricultural development activities. In this connection the University is also engaged in the training of students from the developing countries.

Besides, the graduates of Sindh Agriculture University Tandojam are eligible to apply for competitive examinations held by the Provincial and Federal Public

Service Commissions for administrative, secretariat and other superior services of Pakistan.

BSIT (Hons.) graduates of ITC have adequate opportunities to work in software development, teaching, education and training, offices, banks and other financial organizations, research organizations, management, health care, commerce and industry, military, police, railway, air traffic, communication and transport services, tele-communication corporations, networking, and database management. Graduates of Information Technology can join as software engineer, programmer, lecturer, computer engineer, system analyst, system administrator, network administrator, network engineer, network manager, scientific officer, research officer, administrative officer, database administrator.

CATERING

Any group of students not less than 20 and not more than 60 or the number as may be fixed by the Hostel Provost depending on a particular situation in the hostel, who may wish to run their mess shall obtain prior permission on prescribed form from the Provost through the Warden of the hostel and intimate the name of the manager, who shall be one of the resident students of hostel.

The manager shall produce the list of the residents, who will be catered in his / her mess along with full identification, which will be subject to official scrutiny through appropriate agencies. Provost / Deputy Provost may refuse to allow any person to work on staff or any mess without assigning any reason.

The manager shall on his personal responsibility certify that the cooks and other staff members engaged in the mess are of good character and are not criminals, history convicts, assigned to him/her or acquired or engaged by him on account of any political association or affiliations.

If at any time the certificate given by a manager is found incorrect, the manager shall be liable to disciplinary action as a hostel resident as well as a student at the University.

Students who may not join the mess can have their meals in the hostel canteen only. Any student found cooking meals in the rooms shall be liable for disciplinary action

CODE OF CONDUCT

The Students of the University Shall

- Devote whole heartedly in acquiring the knowledge imparted by the teachers with the help of prescribed books, published literature and experimental work in laboratories and fields during their studies at the University.
- Be regular in attending classes and shall maintain at least 75% attendance in the classes.
- Maintain the notes and list of the lectures delivered by the teachers in the class.
- Maintain and preserve in good condition the books and literature received by them from the University Libraries.
- Handle with care and caution the equipment, instruments, tools and machines available in the laboratories at the research or demonstration farms, livestock and poultry experiment stations, and veterinary clinics of the University.
- Extend cooperation and response to the teachers as could be conducive to the attainment of more and more knowledge and learning.
- Show to the teacher's utmost an undivided respect, obedience and recognition as would be considered in terms of morality, obligatory on the part of son or child towards his parents and elders in family.
- Maintain neatness and cleanliness in the classrooms, laboratories, corridors, compounds, and hostel rooms as could be expected of any human being in respect of his own dwelling, home, or abode.
- To participate fully and whole heartedly in sports, games, and extracurricular activities with the object of developing a healthy body for a healthy mind.

- To encourage activities that may create a sense of brotherhood and affinity among the students.
- Maintain identity as a student at the University and oneness among all students by wearing the gown and identity badges on chest as may be prescribed by the University.
- Contribute actively to the development of national ideology and Islamic mode of life.
- Implicit obedience and follow the rules, instructions, guidelines issued by the University authorities from time to time.
- Show due respect and regard to all leaders of national fame, scholars, and religious leaders without distinction.
- And generally, do all acts and deeds as would be, conducive for elevating the image of the University in the society and raising prestige of the University as proud students thereof.

THE STUDENTS OF THE UNIVERSITY SHALL REFRAIN FORM

- Indulging into activities against the Islamic and Pakistan Ideology or national solidarity.
- Indulging into activities promoting / invoking violence or hatred or contempt.
- Indulging into rising of slogans or words spoken or written against any group, class or individuals or against the University authorities.
- Promoting or propagating any regional group, linguistic or sectarian conflicts.
- Using any part of the University Campus for holding political or sectarian gatherings.
- Indulging in foul or malpractices at the examinations.

- Using pressure tactics or political or personal influence in seeking academic promotions, award of financial benefits, or other matters concerning academic or administrative functions of the University authorities.
- Resorting to use of coercive / oppressive or bullying tactics. Inviting
 or allowing entry within the University premises of expelled
 students, anti-social elements or other persons whose presence on
 the university campus may cause conflict among the students or
 whose presence might create unhealthy atmosphere.
- Bringing within the University campus, consuming or encouraging consumption of narcotics or indulging in criminal activities or acts involving moral turpitude.
- Bringing within University premises, keeping / using different kinds of weapons.
- Concealing from the University authorities any act or omission of any student or group of students as might be against the norms of good conduct.
- Using or occupying any room or part of the building of the University campus unauthorized.
- Taking out procession or holding meeting within university campus without prior permission from the competent authority.
- Damaging university buildings, properties, lawns, orchards, experimental farms / stations, research farms, gardens, etc.
- Generally, from all such acts and deeds as might lead to bring disgrace and bad name to the University.

VIOLATION OF CONDUCT AND DISCIPLINE REGULATIONS

 Any student found to have violated the norms of conduct prescribed above shall be deemed to be guilty of the breach of conduct and discipline regulations of the University and shall be liable to penalty under the student conduct and discipline regulations. On Admission to the Privilege of Being a Hostel Resident, he / she Undertakes to abide by the Following Code of Conduct. That he/she shall follow the rules and regulations framed by University for Administration of University hostels from time to time.

- That he / she shall not allow any guests in room after sunset.
- He/She shall not knowingly give refuge or protection to any criminal or any other person who has committed any other recognizable offence or is a fugitive from law, shall not aid or abet any person in his/her criminal activities.
- That he/she shall not bring, keep, store, or permit any one to keep, hide or store, any weapon even licensed, in the University Hostels; and that he/she shall sign the hostel register on arriving in the hostel after closing hours; giving name, room number, time of arrival and other particulars required in the register maintained for the purpose in the hostel entry room.

GROUNDS OF PENALTY

If the competent authority is of the opinion that the defaulting student has committed any of acts herein mentioned shall consider the same as grounds for imposing pounds on the student.

- Misconduct
- Committing of acts of violence or use of force, intimidation, arms, or inciting other students for the same purpose.
- Causing destruction of or damage to the University property or inciting students for the same purpose.
- Making undesirable speeches, raising slogans, shouting and writing, publishing or circulating material derogatory to Pakistan, Islamic Ideology, and the prestige of the University or maligning the University authorities or the University teachers / officers and impairing the sanctity of the University.
- Use of unfair means and malpractices in the examinations.
- Consumption, use, sale and distribution of alcohol, liquor or other intoxicating drugs within hostels or campus of the University or being addict to any intoxicant.

- Making collections or prompting collection of donations, subscriptions etc. in cash or kind as pecuniary assistance for or on behalf of the University or organizations or a department of the University, except in accordance with the instructions issued by the University authorities.
- Committing any act or omission involving moral turpitude which in the opinion of the authority is disgraceful for a University Student; and
- Any act or omission on the part of a student even though committed outside the University campus, which in the opinion of the competent authority has exposed the University to bad name and defamation.

PENALTIES

The competent authority may impose upon a defaulting student any of the following penalties:

MINOR PENALTIES

- Warning in writing.
- A fine not exceeding Rs.500/-
- Withholding result of examination for a period not exceeding 6 months.
- Withholding of a certificate of good moral character.
- Fine commensurate with nature/extent of misconduct.
- Withdrawal of financial concessions for a period not exceeding three months.
- Expulsion from attending classes for a period not exceeding three months.

MAJOR PENALTIES

- Cancellation of examination result.
- Removal from hostel.
- Deprivation from University privileges i.e., scholarship.
- Rustication or expulsion from the University for a Specific Period.
- Disqualifying for a period not exceeding three years for appearance in any University Examinations.
- Rustication and ban on entry in the premises of the University for a period up to three years or more.

PROCEDURE FOR IMPOSING PENALTY

- Following procedure shall be followed for imposing penalty on a defaulting student:
- Orders of the Vice Chancellor shall be final. The right of review shall also vest in him / her.
- Any orders imposing penalty may be withdrawn and misconduct pardoned with such conditions as may be considered necessary by the Vice Chancellor if at any time, after passing such orders, Vice Chancellor is satisfied that penalized student has exhibited genuine repentance over his past conduct and promises to demonstrate improved conduct in future.
- If it comes to the notice of the Students Advisor that a student has conducted himself in a manner invoking any one or more of the grounds of penalty enumerated in regulations, he / she shall immediately bring the matter to the notice of the competent authority and under his instructions shall hold preliminary inquiry by recording statements of witnesses and if necessary, of the defaulting students.
- In case of urgency requiring immediate preliminary inquiry, the Students Advisor may forth-with record the statement of the witnesses and if necessary, of the defaulting student before reporting

- the matter to the competent authority. Provided that if the incident has directly come to the notice of competent authority, he / she may direct a preliminary inquiry to be held by the student advisor.
- The Students Advisor shall place the matter together with his / her report before the competent authority.
- The competent authority on scrutiny of the preliminary inquiry and the report of the Students Advisor may direct a show cause notice to be issued to the defaulting student and refer the matter to the Discipline Committee of the University.
- That the Competent Authority shall not be debarred from imposing a minor penalty on the defaulting student without reference to the Discipline Committee after giving a personal hearing to the defaulting student.
- The Discipline Committee shall on the date fixed after receipt of reply to the show cause notice to the defaulting student hold a meeting at which the witnesses and the defaulting student shall be heard, and the matter considered.
- It shall be discretionary for the Discipline Committee to orally confirm statements recorded at the preliminary inquiry necessary to the witnesses and the defaulting student during hearing.
- The Discipline Committee may, if necessary, grant time till
 following meeting to witnesses and defaulting students to produce
 such evidence as may be unavoidably necessary for the
 determination of the issue before the Committee.
- On completion of the proceeding the Discipline Committee shall forward the matter to the Competent Authority with its opinion proposing penalty to be imposed upon the defaulting student.
- On receiving the opinion from the Discipline Committee, the Competent Authority may impose any penalty on the defaulting student.

APPEAL

 A defaulting student can file an appeal against the order of the imposition of penalty to the Academic Council within one month of the decision of penalty on him / her.

OTHER PENALTIES

 Without prejudice to the grounds of penalty and penalties enumerated in regulation No: 5.1 (a) and (b) have the authorities mentioned below may impose penalties shown against each for acts or omissions not covered by Regulation.

OFFICERS AUTHORIZED TO IMPOSE PENALTY

- The Teacher Incharge Expulsion from the classroom, laboratories, workshop, or field work for the period concerned (Max: four consecutive classes or one week).
- President Gymkhana / Ex-officio. Expulsion from game for not more than one week.
- The Chairman Library Committee. Expulsion from the library for a period not exceeding one month.
- The Dean of a Faculty. Expulsion from all or any class in the faculty for a period not exceeding one month.
- The Hostel Provost. Expulsion from residence in hostel for a period not more than four months
- The Students Advisor, Hostel Provost, President Gymkhana, Dean & Librarian fine not exceeding Rs. 500/-
- The President Gymkhana. Suspension or removal from a Position of authority in university sports.
- The Students Advisor, Suspension, or removal from a position of authority in student union.

 The Dean of a Faculty. Withholding or cancellation of Free ship of university.

RULES AND REGULATIONS GOVERNING GRADUATE PROGRAM UNDER SEMESTER SYSTEM

1. TITLE

The rules and regulations will be called SAU Graduate Degree Program regulations 2018-19 and onwards under Semester System.

2. COMMENCEMENT

These rules and regulations were commenced from 2018 and onward. The issue emerging due to implementation of these Regulations will be resolved by the Academic Council.

3. DEFINATION

These rules and regulations, unless otherwise stated:

- "University" means Sindh Agriculture University, Tandojam.
- ii. "Academic Year" means the Academic Year of the University corresponding to the Calendar Year.
- iii. "Credit Hour" means the successful completion of a course of one contact hour in Theory or atleast two contact hours in Practical per week.
- iv. "Credit Course" means a course of study to be completed as a requirement for a degree.
- "Semester" means a period of continued 22 weeks duration including examination.
- vi. "Semester Examination" means the Mid plus (+) Final Examinations held during each semester.

- "Vice Chancellor" means Vice Chancellor of Sindh Agriculture University, Tandojam.
- viii. "Registrar" means Registrar of Sindh Agriculture University, Tandojam.
- ix. "Teacher" means Teacher of Sindh Agriculture University, Tandojam.
- "Controller of Examinations" means Controller of Examinations of Sindh Agriculture University, Tandojam.
- xi. "Examiner" means subject teacher, or any other teacher appointed by the Competent Authority in conformity with the Regulations.
- xii. The medium of instructions and examinations shall be English.

4. DURATION OF THE COURSE

Minimum requirement for various degree programs offered in the University is given in the following table:

Table 1. Credit Hours and Duration of Various Degree Programs

Degrees	Cr. Hr.	Duration
B. Sc. (Agri.) Hons. in	136 to 140	8 Semesters
 Rural Sociology 		
 Statistics 		
 Agricultural Economics 		
 Agricultural Education & Extension 		
 Agronomy 		
 Biotechnology 		
 Crop Physiology 		
Horticulture		
 Plant Breeding & Genetics 		

Soil Science		
Entomology		
Plant Pathology		
Plant Protection		
B. Sc. (Hons.) in	136 to 140	8 Semesters
Food Sciences & Technology		
B.S.I.T (Hons.) in	136 to 140	8 Semesters
Information Technology		
DVM in	167 to 170	10 Semesters
Animal Husbandry & Veterinary Sciences		
B.E. (Agri.) in	136 to 140	8 Semesters
Agricultural Engineering		

However, a student who fails to complete degree within the minimum prescribed period may further continue his/ her studies up to four consecutive semesters beyond which he / she shall not be eligible for any enrollment.

5. SEMESTER

Each Academic Year shall start from January in synchronization with the Calendar Year. There shall be two regular Semesters (spring and fall) each of 22 weeks duration (including examination) in an Academic Year. The commencement of the semesters is regulated by the Academic Council.

In addition, an optional 12-week Summer Semester (as part of Academic Year) shall be offered to students to cover failing and / or to improve poor grades and may take courses up to 12 credit hours. Summer Semester shall not count towards residential requirements. Schedule of activities in a semester is given in the following table.

Table 2: Activities in Regular and Summer Semester

Activity	Regular Semester	Summer Semester	
Registration	02 weeks	01 week	
Teaching Session	14 weeks	8 weeks	
Mid Semester Test	During 7 th week	During 4 th week	
Exam preparation and Filling of Examination Forms	02 weeks	01 week	
Final Semester Examination	04 weeks	02 weeks	
Total	22 weeks	12 weeks	

Calendar for each academic year showing specific dates for registration, teaching session and examination schedule for both semesters shall be announced before commencement of the academic session. Mid semester test shall be conducted during 7th week after commencement of the classes. The subject teacher will conduct this mid semester test at the class schedule of the respective subject. Answer copies shall be returned to students, while attendance sheets shall be submitted to the Controller of Examinations.

6. STUDENTS COUNSELING

The coordinators in their respective Faculties/Colleges/Institutes/Centers shall provide adequate counseling and guidance to the students in the selection of their courses and related matters.

7. ADMISSION POLICY

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8. EXAMINATIONS

The regulations related to conduct of Theory and Practical examinations including the appointment, responsibilities, and remuneration of examiners and examination staff are covered in detail by existing rules and shall remain effective until modified. Examination results shall be compiled and announced by the Controller of Examinations.

8.1. Setting of Question Paper for Theory Final Examination

The following Regulations are framed for the setting of question paper,

- The Teacher / Examiner shall set the Question paper from full syllabus of the course in the Final Examination.
- Paper shall contain at least 40% objective and 60% descriptive type questions.
- The choice shall be limited to 25% from the descriptive type of section in line with the guidelines provided by Higher Education Commission.
- 4. The student must attempt all questions in objective type section.

8.2. Eligibility for Appearing in the Examination

Candidates fulfilling the following minimum requirements are eligible for appearing in semester examinations

- He / She must be a student and his / her name must appear on the registration list of the University.
- ii. He / She must have at least 75% average attendance iii. He / She must fill the Examination Form and pay prescribed fees within the due date announced by the University. iv. He/ She is not debarred from taking the examination.

v. The Examination Forms will be signed by the coordinator of the concerned Faculty / College/ Institute / Center forwarded to the Controller of Examinations.

8.3. Examination Fees

Examination fees will be collected with registration. Identity card of the University will serve as admit card. List of registered students will be provided to Coordinator / Dean.

8.4. Assessment of Theory Answer Copies

The sealed answer copies of final semester examination will be sent by Controller of Examinations to the concerned Examiner who will assess the answer copies and send the marks lists (in duplicate), within 20 days for every 100 answer copies and 30 days for more than 100 copies or part thereof after the date of examination, to the Controller of Examinations. If he / she fails to submit examination result after above mentioned period of 30 days, he / she shall not be appointed as Examiner in the next examination. The answer copies of mid semester test will be returned to the students whereas, the answer copies of final examination will be deposited by the examiner under sealed cover in the office of the Controller of Examinations for record and verification at later stage.

8.5. Examination Grading

The performance of a student is to be measured in letter Grade (A, A⁻, B⁺, B, B⁻, C⁺, C, C⁻, D⁺ and D Grade). These letters carry weightage from 1 to 4 points per credit hour of a course. The evaluation system comprises of weightage assigned for assignments, mid semester and final semester test to be solely conducted and assessed by the concerned teacher who offered the subject.

Table 4. Weightage of Assignments, Mid-semester Test and Final Examination

Activity	Weightage (%)
Attendance	10

Assignments	10
Mid-semester test	20
Final examination	60
Total	100

The grading of candidates for each examination shall be as under.

Table 5. Range of Marks Percent, Grade Points, Grade and Achievements

Range of Marks %	Grade Points	Grade	Achievements
=>80	4.00	A	Excellent
73-79	3.67	A-	Very Good
66-72	3.33	B ⁺	Good
60-65	3.00	В	
56-59	2.67	B-	
53-55	2.33	C ⁺	Satisfactory
50-52	2.00	С	
46-49	1.67	C-	Below average
43-45	1.33	D ⁺	1 1 1 1 1 1 1
40-42	1.00	D	Pass
<40	0.00	F	Fail

Explanatio	n of Marks Transcript Remarks
Pass	The candidate passed all subjects offered in a semester or in two consecutive semesters with G. P. A. = 2.00 or higher. He / She is eligible to move to next semester / session, but may repeat any subject where he / she scored grade "C" or less
Probation	The candidate secured G. P. A ≥ but secured less and / or failed in some subjects. He / She will be promoted in next semester but will repeat failing subjects or poor grade to improve G.P.A in succeeding semester (s) as Ex-student.
Less G.P.A	The candidate secured G. P. A < 1.75, secured less and / or failed in some subjects. He / She will automatically move from 1,3,5,7 semesters to 2,4,6,8 semesters but will repeat failing subjects or poor grade to improve with (G. P. A) in succeeding semester(s) as Ex-student.
Fail	The candidate secured G. P. A < 1.75, in two consecutive semesters, cannot be promoted to next session. He / She will be admitted in any of the weak semesters and will repeat courses of the current and previous semesters to G. P. A. \geq 1.75 to be eligible for promotion to next session.

8.6. Grade Point Average (G.P.A)

Grade Point Average (G.P.A) is calculated to assess the performance of the students during each semester. Cumulative Grade Point Average (C.G.P.A) is calculated to assess the performance of the student from first semester to the current semester; Notations Used for the Computation of G.P.A and C. G.P.A

G.P.A = Grade Point Average

Quality Point = Grade Points multiplied by credit hours (Theory / Practical)

 \sum Q. P = Sum of all quality points of courses offered in the semester

 \sum C. H = Sum of all credit hours of courses offered in the semester

 $G. P. A = \sum_{i} Q. P$

∑ C. H

C.G.P.A = Total Q. P of the program/Total Credit Hours of the

Program

8.7. Minimum G.P.A requirement for degree and promotion to next academic session.

- G.P.A = 2.00 or above is to be scored for successful completion of the Graduate Degree Program.
- ii. Student securing G.P.A= 1.75 or higher in two consecutive semesters (1 & 2; 3 & 4; 5 & 6; 7 & 8) on the other hand qualifies for promotion to the higher semester although failing or having scored "D" grade in some courses.
- iii. Student with G.P.A. less than 1.75 in two consecutive semesters does not qualify for promotion to next higher semester. Such students are required to remain in the same year in any of the weak semesters and shall improve the grades of the failing / poor grade to qualify for promotion to next higher semester.

8.8. Tabulation and Checking of Results.

The following Regulations will be adopted for tabulation and checking of the Results.

- The Tabulators and Checkers will be appointed by the Vice Chancellor from among the teachers at Sindh Agriculture University.
- The Tabulator will open the sealed envelope (marked Tabulator List), containing the award list for each subject and enter the marks secured

by the student on a specified sheet / ledger and sign the sheets / ledgers.

- iii. The Checkers will check each entry made by the Tabulators for each student carefully and make the corrections, if necessary, and sign the sheets / ledgers.
- iv. The Secrecy Officer, Additional Controller of Exams, Deputy Controller of Examinations, Controller of Examinations shall sign the tabulated and checked result sheets and ledgers. After seeking the approval of Competent Authority, the results shall be declared by the Controller of Examinations.

It is mandatory for each signatory of the result sheet / ledger to record the number of overwriting(s) appearing on each page being signed.

8.9. Repeating Courses to Improve G.P.A

A student can improve his / her G.P.A under following Regulations.

- i. Whenever a candidate fails or gets "C" grade or less, he / she can reappear or improve his / her G.P.A at the immediate next session in the respective semester (s) when the examination of that course (s) is conducted.
- ii. If a student absents him / herself in a mid-semester / final semester test for any reasons, no separate test will be held for him / her during that semester. He / She can appear at the immediate next session in the respective semester when the examination for that course (s) is conducted.
- iii. A student who has passed and obtained the degree will not be allowed to improve any course.
- iv. On improving subject, if one gets the grade less than the previous, the previous grade will be counted towards his/ her passing.
- v. All courses taken by a student, will be shown on his /her transcript including those with "Failure" or "Repeat"

8.10. Rules for Promotion

For degree programs with 8 semesters, the promotion from the first semester to the second, third to fourth, fifth to sixth and seventh to eighth semesters will be automatic. However, for promotion from 2nd to 3rd, 4th to 5th, 6th to 7th semester, the candidate is required to have a G.P.A of 1.75 in two consecutive semesters i.e. 1st & 2nd, 3rd & 4th, 5th & 6th.

For degree programs with 10 semesters, the promotion from the first semester to the second, third to fourth, fifth to sixth, seventh to eighth and ninth to tenth semesters will be automatic. However, for promotion from 2nd to 3rd, 4th to 5th, 6th to 7th, 8th to 9th semester, the candidate is required to have a G.P.A of 1.75 in two consecutive semesters <u>i.e.</u> 1st & 2nd, 3rd & 4th, 5th & 6th, 7th & 8th.

- i. If a student fails to meet the attendance requirement in any semester, he / she will not be allowed to appear in that semester examination and has to seek fresh admission in the next semester in the same class as explained here <u>under</u>;
- a. If a student fails to meet minimum attendance requirement during first semester, he / she will not be allowed to appear in the first semester examination. He / She has to seek fresh admission during the next academic session in the same class for which he / she will be allowed re-admission without competing with other applicants.
- b. The same procedure will be adopted for the succeeding semesters in case of the shortage of attendance.
- ii. A student who secures less than 1.75 G.P.A. in the preceding two semesters will not be promoted to next semester of the new session, however, the student may re-appear as ex-student at the immediate next session in respective semesters to improve his failing G.P.A. when the examination of that course(s) is conducted in which he / she is failing or has secured less G.P.A. He / She will be required to pay examination fee of all semesters whose courses he / she intends to repeat irrespective of the number of courses.
- iii. For award of degree, the student must have a minimum C.G.P.A. of 2.00 and has passed all the course(s) offered in the entire degree program.

iv. A student failing in any course of the bachelor's degree program shall not be allowed admission in master's degree program unless he / she clears that course and earns degree with C.G.P.A. of 2.00 or higher.

8.11 Re-totaling of marks

Re-totaling of marks will be allowed on payment of prescribed fees. Accordingly, the concerned student shall apply to the Controller of Examinations through the Coordinator within ten weeks of declaration of the result. Re-totaling / correction shall be made in presence of the following Standing Committee: Controller of

Examinations, Secrecy Officer, Coordinator, and the subject Examiner.

8.12 Anomaly Committee

- Each department shall constitute a Committee of the Senior Teachers of the department of which the Chairman shall be the Convener, for hearing appeals of students who may have grievance concerning their grades.
- Such an appeal must be lodged within four weeks of the declaration of result of the concerned course.
- iii. The decision of the Committee shall be final.

9. CANCELLATION OF ADMISSION DUE TO POOR PERFORMANCE

A candidate shall be removed from the University roll if he / she secure C.G.P.A. less than 2.00 in the entire degree program in six years' time and in case of D.V.M program in seven years' time (The maximum time a candidate is allowed to earn bachelor's degree).

10. DECLARATION OF POSITION

Following Regulations will apply for the declaration of positions:

- A candidate who passes each course of degree program in single attempt, will be eligible for declaration of position (First, Second and Third) for each Class / Academic Year.
- ii. If a candidate passes course in two Academic Years i.e., one semester in one academic year and other semester in another academic year, he / she will not be eligible for position in any of the academic years. This shall apply to individual cases but not to the batches admitted on regular basis.
- Position shall be declared based on the batch in which the student was initially admitted.
- iv. First, Second & Third position / merit certificates will be awarded in each program based on overall merit. If more than one student secures the same C.G.P.A the position will then be determined based on percentage of marks obtained.
- v. In all cases where the Regulations are silent or where there is difference of opinion about their interpretation, the decision of the Deans Committee; with the Senior Most Dean serving as Convener shall be final, provided they are not inconsistent with or repugnant to these Regulations.

11. AWARD OF DEGREE

Following Regulations will apply for the degrees

- i. In the end of each Academic Year, the Controller of Examinations will submit, before the Academic Council, the list of successful candidates for award of various Degrees and Medals. The Academic Council will in turn send their recommendation to the Syndicate to confer the Degrees / Medals upon successful candidates who are otherwise eligible.
- ii. Degrees and Medals / Pass Certificates will be issued as per format approved by the Academic Council.
- iii. The Academic Council shall approve the nomenclature of various Degrees awarded by the University.

- iv. The color of the degree folder shall be approved by the Competent Authority.
- v. The degree shall be awarded on the performance of all semesters in the degree program.
- vi. Marks percentage will be shown on marks / pass certificates of each year and aggregate marks percentage in the final transcript together with the G.P.A and C.G.P.A.

The degree certificate shall be issued as per University format approved by the Academic Council.

12. AWARD OF MEDALS

For the award of medals, the following Regulations have been framed.

- The Medals will be awarded to those who secure First or Second positions as per qualifying criteria on overall merit basis. Those who secure Third position in these examinations shall be awarded Merit Certificate
- ii. No Medal will be awarded to a candidate who had previously failed in any subject at any examination and passed the same examination in the second attempt.
- iii. The pattern of Award of Chancellor's Gold Medal and other Gold, Silver and Gilt age medals for each Academic Year shall be as per university rules.

13. EXAMINATION FEES

The fee structure pertaining to examinations will be determined and revised from time to time, by the Competent Authority subject to the approval of Academic Council. The candidate is required to pay examination fees for the ongoing semester as well as for each semester whose course (s) he / she intends to repeat whether failed or obtained "C" grade or less.

14. CORRECTION/CHANGE IN THE NAME / FATHER'S NAME / SURNAME

Following Regulations will apply to candidates requesting or correction/change in the name, father's name, and surname.

- The corrections in the name, father's name and surname will be allowed only on the basis and in conformity with the Matriculation Certificate (SSC / O level Examination) of the concerned Boards and/ or otherwise.
- ii. After ordering any correction / change, the degree already issued to the candidate will neither be cancelled, nor a new degree be issued. Only the fact of having returned of the original degree already issued. Such endorsement will be signed by both the Controller of Examinations and the Registrar on the reverse of the degree.
- iii. The office will charge a prescribed fee for such correction from the candidates.
- iv. Duplicate Degree Certificate shall be issued as per University Rules and such certificates are to be signed by the Vice Chancellor. The word "DUPLICATE" shall be mentioned.

15. MODIFICATION OF RULES AND REGULATIONS

These Regulations are subject to modifications by the statutory body as and when felt appropriate / necessary from time to time.

FOR MORE INFORMATION:

Registrar,

Sindh Agriculture University Tandojam, 70060, Sindh, Pakistan

Phone: +92-22-2765387 & +92-22-2765870 (Ext-301) Fax: +92-22-2765300 Email: registrar@sau.edu.pk

Website: www.sau.edu.pk

This prospectus is produced for the general guidance of the applicant's seeking admission at Sindh Agriculture University Tandojam. The University bears no liability for errors and omissions, if any. The University reserves the right to withdraw and amend the rules, regulations, policies, fee structure, etc. at any stage.







PROF. DR. QAMARUDDIN CHACHAR

PHD (WALES-UK), POST-DOC (ENGLAND-UK)
DEAN, FACULTY OF CROP RPODUCTION
EMAIL: <u>DEANFCPD@SAU.EDU.PK</u> | PH: +92-22-

2765870 EXT: 390-351 | CELL: +92-300-3125641











FACULTY OF CROP PRODUCTION

The Faculty of Crop Production emerged because of bifurcation of the Faculty of Agriculture in 1987. The restructuring was done to streamline academic and research activities and to effectively address the activities for sustainable crop productivity. As such, it is committed to academic excellence in graduate and postgraduate education and research in broad spectrum disciplines of agriculture. The faculty conducts diverse programs in education, research and other services to nation and the farming community.

The faculty happens to be the largest faculty of the university comprising of six departments (Soil Science, Agronomy, Horticulture, Plant Breeding & Genetics, Biotechnology, Crop Physiology) and one institute (Institute of Food Sciences & Technology). All departments and the institute offer both graduate and postgraduate level degrees programs. The faculty imparts practical training to the students and enriches its research endeavors through experimental farms (Latif and Malir) and advanced computer labs, with internet facilities. The laboratory facilities possess basic and highly advanced equipment. An internship program has been included in the new scheme of studies which is also a feather in its cap. The teaching staff is highly qualified and trained through local and overseas training programs. The faculty, over the time, has trained many undergraduate and postgraduate students in various disciplines of agriculture.

MISSION STATEMENT

The graduates and postgraduates will have immense opportunities in various disciplines of agriculture and allied sciences in public and private sector organizations, autonomous and semi-autonomous bodies viz, Zarai Tarqiati Bank of Pakistan (ZTBP), Pakistan Agricultural Research Council (PARC), Pakistan Council for Research in Water Resources (PCRWR), WAPDA, Fruit

Preservation and Food Industries. Their services can also be utilized in provincial and federal departments of Agricultural Extension, Research, Teaching, Forestry, Cooperatives, Pakistan Central Cotton Committee, Federal Seed Certification Department (FSCD), Public Parks and Gardens, Seed Corporations, EPA, SCARP, Sindh Sugar Corporation, Pakistan Atomic Energy Commission, and other public and private departments.

Pakistan Broadcasting, other corporations and commercial banks, National Planning Commission, USAID, FAO, LEAD, Fertilizer Industries, National Talent Pool, INGOs and other NGOs, Agriculture consultancy firms are some of the alternatives, where they can excel with the talent they have harnessed.

The Faculty of Crop Production is committed to the preparation of students for life in the global community through research and educational programs for supporting sustainable agriculture systems that foster viable communities, a diversified economy, and a healthy living environment.

CENEDAL	OTIDGES OFFEDED FOD D S- (A;) II		
	OURSES OFFERED FOR B.Sc. (Agri.) Hons.	G IIDS	
CODE	TITLE OF COURSE	C. HRS.	
SEMESTER-I			
IS/EB-301	Islamic Studies / Ethics (Optional for Non-	2 (2+0)	
	Muslim)		
MATH-301	Functional Mathematics	3 (3+0)	
SS-301	Introduction to Soil Science	3 (2+1)	
ENT-301	Introductory Entomology	3 (2+1)	
AGR-301	Basic Agriculture	3 (2+1)	
ENG-301	English Text, Grammar & Composition	3 (3+0)	
BT-301	Introductory Biotechnology	3 (2+1)	
SEMESTER-I	I		
AGEC-302	Introduction to Economics and Agriculture	3 (3+0)	
	Economics		
PBG-302	Introductory Genetics	3 (2+1)	
HORT-302	Introductory Horticulture	3 (2+1)	
PP-302	Introduction to Plant Pathogens	3 (2+1)	
AGR-302	Field Crop Production-I	3 (2+1)	
AEE-302	Introduction to Agriculture Extension and	2 (2+0)	
	Education		
PS-302	Pakistan Studies	2 (2+0)	
SEMESTER-III			
PBG-401	Introductory Plant Breeding	3 (2+1)	
CP-401	Introduction to Biochemistry	3 (2+1)	
PPT-401	Introduction to Pest Management	3 (2+1)	
HORT-401	Horticultural Crop Production	3 (2+1)	
FST-401	Introductory Food Science & Technology	3 (2+1)	

AHV-401	Introductory Animal Husbandry	2 (1+1)
SEMESTER-	-IV	
AGR-402	Field Crop Production-I I	3 (2+1)
CP-402	Introductory Crop Physiology	3 (2+1)
SS-402	General Soil Science	3 (2+1)
ENT-402	Applied Entomology	3 (2+1)
BT-402	General Biotechnology	2 (1+1)
FPM-402	Farm Mechanization	2 (1+1)
ITC-402	Computer Applications	3 (2+1)

DEPARTMENT OF AGRONOMY

Department of Agronomy is engaged in developing trained Human Resource base in Crop Production, conduct basic and applied research in various aspects of crop production and land management under various agro-ecological and socio-economic conditions of the farming community. The department is actively involved in planning, conducting, and publishing quality research in well reputed journals and periodicals. The department has completed several research projects / schemes. Recently four different projects have also been initiated by this department, in which postgraduate students were involved as "Research fellows".

OBJECTIVES

- The department is organized and implemented in a manner which enables learners to acquire and develop competencies in crop production management, crop research and research dissemination and entrepreneurial skills through learning activities and experiences that are based on real agriculture problems with following specific objectives:
- Disseminate knowledge and skills to students and those involved in crop production.
- Identify technical and socio-economic issue areas constraining farm productivity and find solutions to overcome these problems.
- Develop strategies through trainings and demonstrations to promote sound agricultural practices among local farmers for reducing the risk of crop failures and farmer vulnerability.

JOB OPPORTUNITIES

Seed, fertilizer, pesticide companies, CDAs, banks, public and private sectors, NGOs, Government departments, Agriculture Research, Agriculture Extension, Universities, etc.

ACADEMIC STAFF		
Aijaz Ahmed Soomro	PhD (China)	Professor & Chairman
Mahmooda Buriro	PhD (SAU)	Associate Professor
M. Nawaz Kandhro	PhD (SAU)	Associate Professor
Qamaruddin Jogi	PhD (China)	Associate Professor
G. Mustafa Leghari	PhD (SAU)	Associate Professor
Pir Ahmed Naqi Shah	PhD (SAU)	Associate Professor
Nighat Seema Soomro	PhD (SAU)	Associate Professor
Muhammad Ali Ansari	M.Sc. (Agri.) Hons	Assistant Professor
Habib-u-Rehman	M.Sc. (Agri.) Hons	Assistant Professor
Memon		
Bakht-u-Nisa Mangan	PhD (China)	Assistant Professor

GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER	4-V	
AGR-501	Arid and Rain-Fed Agriculture	3 (2+1)
AGR-503	Agro-Technology of Major Crops	3 (2+1)
AGR-505	Field Crop Physiology	3 (2+1)
AGR-507	Introduction to Crop Modeling	3 (2+1)
AGR-509	Seed Production Technology	3 (2+1)
STAT-511	Elementary Statistics	3 (2+1)
SEMESTER	-VI	
AGR-502	Farm Record Maintenance	3 (2+1)
AGR-504	Principles of Weed Science	3 (2+1)
AGR-506	Plant Nutrients and Growth Regulators	3 (2+1)
AGR-508	Medicinal and Special Crops	3 (2+1)
CP-510	General Biochemistry	3 (2+1)
SEMESTER-VII		
AGR-601	Research and Scientific Writing	3 (2+1)
AGR-603	Irrigation Agronomy	3 (2+1)
AGR-605	Forage and Fodder Production	3 (2+1)

AGR-607	Production Technology of Condiments and	3 (2+1)
	Spices	
SUPT-611	Environment and Crop Production	3 (2+1)
SEMESTER	R-VIII	
AGR-602	Agro Ecology	2 (2+0)
AGR-604	Conservation Agronomy	3 (2+1)
AGR-606	Organic Farming	3 (2+1)
AGR-610	Internship and Report Writing	4 (0+4)

DEPARTMENT OF BIOTECHNOLGY

Biotechnology relies on the application of scientific and engineering principles to process the materials by biological agents producing goods and services for mankind. There are many applications of biotechnology in the field of industrial sector, agriculture, pharmaceuticals, healthcare, food, energy, environment, etc.

Department of Biotechnology was established in 1992-93 with a vision to make an impact through research, technology-based training, and innovation. The department offers, graduate and post-graduate courses in biotechnology. It also offers two introductory level courses of biotechnology to undergraduates of other faculties of the university. In addition to academic programs, the department has laboratories for tissue culture, molecular biology / genetic engineering to contribute to the national food security.

The research activities in the Department of Biotechnology are wide ranging, reflecting the diversity of modern biotechnology. The major research areas include plant genomics, alternate energy, industrial biotechnology, functional genomic, etc. Faculty members are fully committed to train graduates that are absorbed in different research and professional organizations.

OBJECTIVES

- To impart quality education, research, innovation, and technologybased trainings.
- 2. To promote and strengthen the area of agricultural biotechnology.
- To develop and apply the basic knowledge of biotechnology for efficient management of environmentally sound and liberal agriculture.

 To expand interaction among agriculture, medicine, environment, fisheries, food processing, renewable energy fuels, etc. which are the common denominators of cells and products derived from them.

ACADEMIC STAFF		
Muharram Ali Qambrani	PhD (China)	Associate Professor &
		Chairman
G. Sughra Mangrio	PhD (US)	Associate Professor
Shahla Baloch	PhD (China)	Associate Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTER-V	SEMESTER-V		
BT-501	Metabolism-I	3 (2+1)	
BT-503	Molecular Biology-I	3 (2+1)	
BT-505	Microbiology	3 (2+1)	
BT-507	Cell Biology	3 (2+1)	
BT-509	Analytical Chemistry &	3 (2+1)	
	Instrumentation		
STAT-511	Elementary Statistics	3 (2+1)	
SEMESTER-V	T		
BT-502	Metabolism-ll	3 (2+1)	
BT-504	Molecular Biology-11	3 (2+1)	
BT-506	Immunology	3 (2+1)	
BT-508	Cell & Tissue Culture	3 (2+1)	
CP-510	General Biochemistry	3 (2+1)	
SEMESTER-V	TI .		
BT-601	Bioinformatics	3 (2+1)	
BT-603	Recombinant DNA Technology	3 (2+1)	
BT-605	Microbial Biotechnology	3 (2+1)	
BT-607	Skills and Research Methodology for	3 (3+0)	
	Biotechnologists		
SUPT-611	Plant Biotechnology	3 (2+1)	
SEMESTER-VIII			
BT-602	Metabolomics, Proteomics &	2 (2+0)	
	Genomics		
BT-604	Principle of Biochemical Engineering	3 (2+1)	

BT-606	Environmental Biotechnology	3 (2+1)
BT-610	Internship and Report Writing	4 (0+4)

DEPARTMENT OF HORTICULTURE

Horticulture is one of the most important major disciplines of agriculture. The production and returns from horticultural crops are high as compared to other crops. The horticultural crops, fruits, vegetables, and flowers possess export potential to earn foreign exchange.

The Department of Horticulture imparts quality education to the students of Sindh and Baluchistan provinces and conduct research on fruits, vegetables, flowers, and ornamental plants. The department has six subject experts from which five PhD teachers are professionally skilled in the field of fruits. vegetables, and floriculture. The Department of Horticulture offers Bachelor, Master and Doctoral degree programs to meet the trained manpower needs of the province. Apart from this, the department imparts trainings in various aspects of horticulture. A program to provide quality fruits, vegetables and flowers with true-to-type varieties is also on going. Seed productions program on flowers and vegetables have been initiated at the department. Post-harvest processing, packaging, and marketing are another step to improve the infrastructure and opportunities for the farmers; breeding of horticultural crops to develop new high yielding varieties and the In-vitro propagation for vegetative multiplication of plants are some of In-vitro other steps in line. The department provides advisory services to the fruit and vegetable growers. The research on problems faced by farming community is also going on with the involvement of graduate and postgraduate students.

OBJECTIVES

- The main objective is to train both undergraduate and postgraduate students in production, post-harvest techniques improvement, storage, processing, and marketing of horticultural crops produces as well as in landscape and aesthetic environmental impact. The specific objectives are:
- 2. Provide educational opportunities for the pursuit of careers in horticulture.

- Improve the quality, variety, and the availability of horticultural products to achieve global gap certification for export.
- 4. Strengthen the competitive position of Sindh's horticulture industry.
- Popularize high density planting concept for achieving higher & quality production of mango.
- 6. Develop technology for production of certified stock and samplings.

ACADEMIC STAFF				
Saba Ambreen Memon	PhD (China)	Professor &		
		Chairperson		
Mujahid Hussain	PhD (SAU)	Professor		
Leghari		 		
Noor-un-Nisa Memon	PhD (UAF)	Professor		
Tanveer Fatima Miano	PhD (Bangladesh)	Professor		
Niaz Ahmed Wahocho	PhD (China)	Associate Professor		
Qadir Bux Baloch	M.Sc. (Agri.) Hons	Assistant Professor		

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	HRS.
SEMESTER-V	V	
HORT-501	Principles of Fruit Production	(2+1)
HORT-503	Principles of Vegetable Production	(2+1)
HORT-505	Principles of Ornamental Crop Production	(2+1)
HORT-507	Propagation & Nursery Management	(2+1)
HORT-509	In-Vitro Propagation	(2+1)
STAT-511	Elementary Statistics	(2+1)
SEMESTER-V	VI .	
HORT-502	Temperate Fruits	(2+1)
HORT-504	Winter Vegetables	(2+1)
HORT-506	Landscape Horticulture	(2+1)
HORT-508	Post-Harvest Horticulture	(2+1)
CP-510	General Biochemistry	(2+1)
SEMESTER-VII		
HORT-601	Research Methods in Horticulture	(2+1)
HORT-603	Tropical & Subtropical Fruits	(2+1)
HORT-605	Commercial Flower Production	(2+1)

HORT-607	Summer Vegetables	(2+1)
SUPT-611	Solanaceous Crops	(2+1)
SEMESTER-	VIII	
HORT-602	Business Management in Horticulture	(2+0)
HORT-604	Protected Horticulture	(2+1)
HORT-606	Vegetable and Flower Seed Production	(2+1)
HORT-610	Internship and Report Writing	(0+4)

DEPARTMENT OF PLANT BREEDING AND GENETICS

Plant breeding is concerned with the evolution of superior varieties of crops. Its mainstay is the genetic adjustment of crop plants to social, economic, and technological aspects of the environment.

The Department of Plant Breeding and Genetics was established in 1954. Since then, the department has been offering courses, research methodologies related to crop improvement, cytology, cytogenetics, biometry, quantitative genetics, molecular genetics, and genetic engineering leading to B.Sc. (Hons) and M.Sc. (Hons) degrees. The department is also offering advanced courses and research guidance to PhD scholars. During the past 61 years, the department has produced more than 730 well trained graduates, who have been serving in various organizations at provincial, national, and international level. Department has got highly qualified and experienced faculty, well equipped laboratories, and experimental farm for undertaking research projects. Recently, the department has established a "Seed Production and Development Centre" which will not only improve and strengthen seed supply system of province but will also serve as major income generating unit for the University.

OBJECTIVES

- The Department's overall aim is to focus on the improvement of quantitative and qualitative traits of cereal, fiber and oilseed crops, production of model crop ideotypes suitable for cultivation in different agro-environments of the Sindh province and ultimately, development of technology package to enhance the capabilities of farmers for various crops. The specific objectives are:
- Impart academic and research training at under-graduate, graduate, and post-graduate levels in the field of Plant Breeding and Genetics.

- Plan and undertake basic and applied research on cereals and other major crops.
- Produce quality seed of wheat, cotton, and vegetable crops for distribution to farmers of Sindh province.
- Establish linkages with provincial, national, and international research and educational organizations to undertake collaborative assignments.
- Development / evolution of genetically improved cultivars / hybrids and other breeding material.
- 7. Improve quantitative and qualitative traits of crop species.

ACADEMIC STAFF		
Shah Nawaz Mari	PhD (SAU)	Professor & Chairman
Zahoor Ahmed	PhD (SAU)	Professor
Soomro		
Munaiza Baloch	PhD (SAU)	Professor
Shabana Memon	PhD (China)	Associate Professor
Wajid Ali Jatoi	PhD (SAU)	Associate Professor
Siraj Ahmed Channa	PhD (China)	Associate Professor
Nasreen Fatima	PhD (SAU)	Associate Professor
Abdul Wahid Baloch	PhD (China)	Associate Professor
Saeed Hyder Ghaloo	M.Sc. (Agri.) Hons	Assistant Professor
		(study leave)
Asghar Ali Rajper	M.Sc. (Agri.) Hons	Assistant Professor
Tanveer Fatah Abro	PhD (Malaysia)	Assistant Professor
Piar Ali Shar	PhD (China)	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTE	R-V	
PBG-501	Principles of Genetics	3 (2+1)
PBG-503	Breeding of Field Crops	3 (2+1)
PBG-505	Cytogenetics	3 (2+1)
PBG-507	Fundamentals of Plant Biometry	3 (2+1)
PBG-509	Breeding of Vegetable Crops	3 (2+1)
STAT-511	Elementary Statistics	3 (2+1)
SEMESTER-VI		
PBG-502	Breeding of Maize, Millet and Sorghum	3 (2+1)

Breeding of Oilseed and Tobacco Crops	3 (2+1)	
Modern Techniques in Plant Breeding	3 (2+1)	
Molecular Genetics	3 (2+1)	
General Biochemistry	3 (2+1)	
R-VII		
Breeding of Cereal Crops	3 (2+1)	
Breeding of Pulse Crops	3 (2+1)	
Breeding of Fodder and Forage Crops	3 (2+1)	
Experimentation in Plant Breeding	3 (2+1)	
Principles of Plant Breeding	3 (2+1)	
SEMESTER-VIII		
Breeding of Sugar Crops	2 (1+1)	
Breeding of Fibre Crops	3 (2+1)	
Biodiversity and Plant Genetic Resources	3 (2+1)	
Internship and Report Writing	4 (0+4)	
	Modern Techniques in Plant Breeding Molecular Genetics General Biochemistry R-VII Breeding of Cereal Crops Breeding of Pulse Crops Breeding of Fodder and Forage Crops Experimentation in Plant Breeding Principles of Plant Breeding R-VIII Breeding of Sugar Crops Breeding of Fibre Crops Breeding of Fibre Crops	

DEPARTMENT OF CROP PHYSIOLOGY

The crop physiology includes various aspects of the plant lifestyle and survival including metabolism, water relations, mineral nutrition, development, movement, irritability, organization, growth, and transport processes. The close link of physiology with biochemistry has made more extensive use of physicochemical methods enabling scientists to conduct research at the cellular, sub cellular and molecular levels and obtain fundamentally new data on the mechanisms regulating the entire complex of life processes and way in which they function as integral systems. Initially (1987), the department was named as Plant Physiology & Biochemistry and established through a Bilateral Link Program between University of Wales, Bangor UK and Sindh Agriculture University, Tandojam. Under this project, twelve teachers of this department have obtained PhD degrees and Post Doctorate trainings from UK. Later, the department was renamed as Crop Physiology in 2010. The department was established in a way to produce skilled and trained persons to produce sustainable agriculture. The department offers B.Sc. (Agri.) Hons; M.Sc. (Agri.) Hons and PhD degrees in Crop Physiology.

OBJECTIVES

- The department focuses on the advancement and documentation of the frontiers of plant sciences and applicable disciplines to improve the quality and quantity of plants and their products, including food, feed, fuel, and fiber production. Objectives are:
- Impart quality education at undergraduate & postgraduate level in crop physiology.
- Discover, formulate, and demonstrate new principles of crop improvement and soil-crop management so that Pakistan's agriculture is socially viable, economically profitable for the farmer and competitive on world markets.
- Identify agriculturally useful genes in wild or little-used plant species and develop techniques to use those genes to enhance the nutritional quality and stress tolerance.

ACADEMIC STAFF		
Qamaruddin Chachar	PhD (UK)	Professor & Chairman
M. Ibrahim Keerio	PhD (UK)	Professor
Mehar-un-Nisa Narejo	PhD (Malaysia)	Associate Professor
Irfana Parveen Bhatti	M.Sc. (Hons)	Assistant Professor
Shanila Yasmeen Chang	M.Sc. (Hons)	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTE	R-V		
CP-501	Basic Physiological Processes of Crop Plants	3 (2+1)	
CP-503	Environmental Physiology	3 (2+1)	
CP-505	Fundamentals of N-Fixation	3 (2+1)	
CP-507	Nucleic Acid & Protein Synthesis	3 (2+1)	
CP-509	Plant Cell Structure & Functions	3 (2+1)	
STAT-511	Elementary Statistics	3 (2+1)	
SEMESTER-VI			
CP-502	Physiology of Cereals	3 (2+1)	
CP-504	Seed Physiology	3 (2+1)	
CP-506	Plant Growth Substances	3 (2+1)	
CP-508	Physiology of Crop Nutrition	3 (2+1)	

CP-510	General Biochemistry	3 (2+1)
SEMESTER-VII		
CP-601	Physiology of Legumes and Cash Crops	3 (2+1)
CP-603	Introductory Molecular Biology	3 (2+1)
CP-605	Stress Physiology	3 (2+1)
CP-607	Plant Water Relations	3 (2+1)
SUPT-611	Plant Growth & Development	3 (2+1)
SEMERSTER-VIII		
CP-602	Carbon Metabolism in Plants	2 (2+0)
CP-604	Physiological Aspects of Tissue Culture	3 (2+1)
CP-606	Crop Ecology	3 (2+1)
CP-610	Internship and Report Writing	4 (0+4)

DEPARTMENT OF SOIL SCIENCE

Soil provides essential nutrients and physical support to the plants we harvest for food, fiber, wood, and fuels. Soil provides critical ecosystem services. This vital resource is a paramount to mankind. The Department of Soil Science addresses many important roles of soil through teaching and research programs.

This department was initially established as the Department of Agricultural Chemistry in 1926's and renamed as Department of Soil Science in late 1970's to focus on better education and research in the fields of soil, water, plant and environment. The department has well-established Soil Fertility, Plant Nutrition and Bio saline Agriculture Research laboratories in addition to four other common use laboratories and two green houses for conducting experiments. The teaching staff of this department is highly qualified consisting of 13 subject experts of whom 12 are PhD and one is M.Sc. The department has produced hundreds of graduates and post-graduates including PhDs. At present several graduates and postgraduates are enrolled in the department. The Department of Soil Science conducts basic and applied research through its faculty and postgraduate scholars.

The department is playing an important role in HRD and R&D activities in the field of soil and environmental sciences. The department has strong links with several national & international bodies actively involved in soil and environmental research. Hence, understanding the physical, chemical and biological nature of soil is paramount for existence of life on this planet.

OBJECTIVES

Our aim is to develop and apply basic and applied knowledge of soil and environmental sciences for efficient management of soil, water, and environment with following specific objectives:

- Prepare individuals with an ability to understand & apply fundamental principles of soil & environmental sciences.
- 2. Conduct useful basic and applied research in the field of Soil Sciences.
- Study the interaction between soil, water, plant, and chemicals (both organic and inorganic) for better crop growth & yield.
- Improve methods that are used in soil, plant, water, and fertilizer analyses.

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ACADEMIC STAFF			
Inavatullah Raipar	PhD (UK)	Professor &	
		Chairman	
Allah Wadhayo	PhD (SAU)	Professor	
Gandahi		1 1 1	
Mehrunisa Memon	PhD (Germany)	Professor	
Zia-ul-hassan Shah	PhD (UAF)	Professor	
Saleem Sarki	PhD (Malaysia)	Associate Professor	
Saleem Maseeh Bhatti	PhD (New Zealand)	Associate Professor	
Khalid Hussain Talpur	PhD (China)	Associate Professor	
Ghulam Murtaza Jamro	PhD (Canada)	Associate Professor	
Shoukat Ali Abro	PhD (China)	Associate Professor	
Naheed Akhtar Talpur	PhD (Germany)	Associate Professor	
Anila Mastoi	M.Sc. (Agri.) Hons	Assistant Professor	
Siddique Lashari	PhD (China)	Assistant Professor	
Saima Kalsoom Babar	PhD (Malaysia)	Assistant Professor	

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	HRS.	
SEMESTER-V			
SS-501	Physical Properties of Soil	(2+1)	
SS-503	Chemical Properties of Soil	(2+1)	

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SS-505	Soil Fertility and Fertilizer Use	(2+1)	
SS-507	Instrumentation & Laboratory Techniques	(2+1)	
SS-509	Soil Genesis & Morphology	(2+1)	
STAT -	Elementary Statistics	(2+1)	
511			
SEMESTE	R-VI		
SS-502	Salt-affected Soils and Water Quality	(2+1)	
SS-504	Soil Survey and Land Evaluation	(2+1)	
SS-506	Soil and Water Conservation	(2+1)	
SS-508	Soil-Water-Plant Relationship	(2+1)	
CP-510	General Biochemistry	(2+1)	
SEMESTE	SEMESTER-VII		
SS-601	Soil Microbiology	(2+1)	
SS-603	Environmental Pollution and Management	(2+1)	
SS-605	Trace Elements in Agriculture	(2+1)	
SS-607	Carbon Sequestration in Soil	(2+1)	
SUPT-611	Integrated Plant Nutrition Management	(2+1)	
SEMESTER-VIII			
SS-602	Research Project and Scientific Writing	(2+0)	
SS-604	Land Degradation and Management	(2+1)	
SS-606	Municipal and Agro Waste Management	(2+1)	
SS-610	Internship and Report Writing	(0+4)	





Prof. Dr. AIJAZ HUSSAIN SOOMRO, PhD (UAAR)
DIRECTOR, INSTITUTE OF FOOD SCIENCES AND
TECHNOLOGY

Email: ahsoomro@sau.edu.pk | Ph: +92-22-2765554 | Ext: 377





INSTITUTE OF FOOD SCIENCES & TECHNOLOGY

The Institute of Food Sciences and Technology was established in April 2007 through the up gradation of the Department of Food Technology, which was established in the year 1996 and initiated its academic activities in the year 1998. The establishment of the Institute of Food Sciences and Technology brought measurable enhancements in the level of quality education and research in food related fields. At present, the Institute offers four years B.Sc. (Hons.), two years M.Sc. (Hons.) and three years Ph.D. degrees in Food Sciences and Technology and is imparting educational program like all food technology departments / institutes of the country through a uniform curriculum as per policy of Higher Education Commission, Islamabad.

MISSION STATEMENT

Institute of Food Science & Technology is committed to provide high-quality education and training to individuals for careers in the food industry, academia, and the government sector. Further to pursue and excel a leadership role in the quest for knowledge by way of quality research, capacity building and innovative outreach in order to contribute to food productivity and safety and secure livelihoods through sustainable value addition & natural resources management.

OBJECTIVES

- To impart quality education to train manpower in the field of Food Sciences and Technology to meet the demand of growers & food industries.
- To conduct research on various aspects of Food Sciences and Technology.
- 3. To train rural masses for poverty alleviation.
- To develop post-harvest technologies to reduce wastage in fruits and vegetables.
- IFST has proved its effectiveness through research related activities in the field of food processing, preservation, food safety and quality management

FACILITIES

The Institute of Food Sciences & Technology has established seven hi-tech laboratories viz. Food Analysis, Bakery Technology, Food Microbiology, New Food Product Development, Cereal Technology and Drying & Dehydration. Each laboratory is equipped with advanced (e.g. GC-MS, HPLC, AAS, ELIZA and texture Analyzer) and other common use processing of analysis equipment's instrumentation to carry on the relevant tasks. In addition to this, the Institute has two walk-in type cold storage units, one beverage unit: one juice treatment plant and one canning unit for teaching, research, and conduct of trainings. Other facilities include a computer laboratory with internet facility and a well-established library where students can explore their research materials and interact with other researchers" in their relevant fields. Recently Institute has established food products display center. The Institute has established strong linkages with different food industries such as National Foods Karachi, Wazir Ali Oil Industries, Dawn Bread Hyderabad, Lateefa Food Hyderabad, Pakistan Beverages Hyderabad, Popular Food Industry Tando Adam, Candy land and Cadbury Hub for conduct of mutually agreed trainings, research, and strengthening of practical capacity of students & industry personnel. The Institute also has a strong post graduate program offering courses and facilities for research up to PhD level.

JOB OPPORTUNITIES

In Pakistan, there is a vast potential for food technology graduates to be self-reliant by establishing small food units such as bakery unit, beverage production unit, juices / squash preparation unit, pickles etc. Apart from small individual establishment business, there is a need of food sciences & technology graduates in different food industries of the country such as bread baking companies, national food companies, oil and beverage industries, fruit processor exporters, government organizations such as Sindh Horticulture

Research Institute Mirpurkhas, Nuclear Institute of Agriculture, Universities, Private and Semi Government Companies, Banks, Agriculture Research

Institutes, etc.

ISO Certification

The Institute of Food Sciences & Technology have ISO certification (ISO 90012015).

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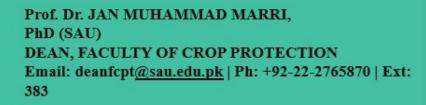
ACADEMIC STAFF		
Aijaz Hussain Soomro	PhD (UAAR)	Professor & Director
Tahseen Fatima Miano	PhD	Assistant Professor
	(Turkey)	
Asadullah Mari	PhD (SAU)	Assistant Professor
Shahzor Gul Khaskheli	PhD (China)	Assistant Professor
Aasia Akbar Panhwar	PhD (SAU)	Assistant Professor
Dileep Kumar	PhD (China)	Assistant Professor

COURSES OFFERED FOR B.Sc. Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
ENG-301	English I	3 (3+0)
BIO/ MATH303	Biology / Mathematics	3 (3+0)
STAT -305	Statistics	2 (2+0)
AGR-307	Basic Agriculture	3 (2+1)
PS-309	Pakistan Studies	2 (2+0)
IT-311	Introduction to Computer Science and	2 (1+1)
	Information Technology	
FST-313	Introduction to Food Science & Technology	3 (2+1)
SEMESTER-II		
FST-302	Food Chemistry	3 (3+0)
FS-304	Unit Operation in Food Processing	3 (2+1)
STAT-306	Applied Statistics	3 (2+1)
MICRO-308	General Microbiology	3 (2+1)
IS-310	Islamic Studies / Ethics	2 (2+0)
HORT-312	Introduction to Horticulture & Orchard	3 (2+1)
	Management	
SEMESTER-III		
ENG-401	English II	2 (2+0)
ID-403	Fluid Mechanics	3 (2+1)
BCH-405	Essentials of Biochemistry	3 (3+0)
FST-407	Food Processing and Preservation	3 (2+1)
FST-409	Instrumental Techniques in Food Analysis	3 (1+2)
AH -411	Introduction to Animal Husbandry	3 (2+1)
AGEC-413	Agribusiness and Trade / Marketing	3 (3+1)

SEMESTER-IV	•		
FST-402	Fruit and Vegetable Processing	3 (2+1)	
PP-404	Introductory Plant Pathology	3 (2+1)	
FST-406	Food Microbiology	3 (2+1)	
FST-408	Technology of Oils and Fats	3 (2+1)	
FST -410	Principles of Human Nutrition	2 (2+0)	
ENT-412	Pest Control Procedures in Food Industry		
FS-414	Food Process Engineering	3 (2+1)	
SEMESTER-V			
FST-501	Food Biotechnology	3 (2+1)	
FST-503	Sugar Technology	3 (2+1)	
FST-505	Postharvest Technology	3 (2+1)	
FST-507	Food Additives	3 (2+1)	
FST-509	Cereal Technology	3 (2+1)	
FST-511	Food Safety	2 (2+0)	
FST-513	Poultry & Egg Processing	3 (2+1)	
SEMESTER-V	I		
FST-502	Confectionary & Snack Foods	3 (2+1)	
FST-504	Bakery Products Technology	3 (2+1)	
FST-506	Food Packaging	3 (2+1)	
FST-508	Food Laws and Regulations	2 (2+0)	
FST-510	Sea Food Processing Technology	3 (2+1)	
FST-512	Dairy Technology	3 (2+1)	
SEMESTER-V	II		
FST-601	Community Nutrition	3 (2+1)	
FST-603	Meat Technology	3 (2+1)	
FST-605	Beverage Technology	3 (2+1)	
FST-607	Food Product Development	3 (2+1)	
FST-609	Research Projects and Scientific Writing	2 (1+1)	
FST-611	Milk and Meat Hygiene and Public Health	3 (2+1)	
SEMESTER-VIII			
FST-602	Food Quality and Management	2 (2+0)	
FST-604	Extrusion Technology	3 (2+1)	
FST-606	Sensory Evaluation of Foods	3 (2+1)	
FST-608	Food Plant Layout and Sanitation	2 (2+0)	
FST-610	Internship and Report Writing	4 (0+4)	



















FACULTY OF CROP PROTECTION

The need for new approaches in agricultural teachings aimed to reduce yield losses in crops due to insect pests, plant diseases and weeds was felt at the time of up gradation of former Agriculture College to Sindh Agriculture University, Tandojam in 1977. This was eventually translated into the establishment of the Faculty of Crop Protection in July 1987. The teachings at this faculty coordinate the work of entomology, plant pathology, weed science and other plant protection components for imparting the technical know-how of producing healthy crops and addressing the day-to-day problems of farming community in the field of Crop Protection as a whole. The faculty achieves this task through its three departments viz. Entomology, Plant Pathology and Plant Protection; offering course work leading to graduate and postgraduate degrees with special reference to identification and management of newly observed as well as the traditional insect pests, weeds and diseases of crops caused by fungi, bacteria, viruses, and nematodes. At present, the Faculty of Crop Protection offers a 4-year B.Sc. (Agri.) Hons., M.Sc. (Agri.) Hons. and PhD degree program in Entomology, Plant Pathology and Plant Protection. The faculty has all basic facilities of teaching and research including Stored Grain Pests Research Laboratory, Insect Molecular Laboratory, Insect Systematic Laboratory & Insect Museum, Insect Biological Control Laboratory, IPM Laboratory, Plant Diseases Diagnostic & Research Laboratory and Biocontrol Laboratory, which are moderately equipped.

To promote merit and healthy academic competition, the faculty awards various scholarships to needy and meritorious students at graduate and postgraduate levels through pesticide companies and various other government and nongovernment organizations, including HEC-USAID and HEC-Japanese need-based scholarships.

MISSION STATEMENT

To achieve the highest standards in teaching, learning and research related to insect pests, weeds and diseases of crops and to advance and disseminate the knowledge in crop protection to all the stakeholders in agriculture, especially the farmers with emphasis on non-chemical management methods including biological, mechanical and cultural control.

JOB OPPORTUNITIES

Graduates from this faculty can find employment in Academic, Provincial as well as Federal Government sectors including Agri. Extension, Research, PARC, PAEC (NIAB, NIBGE, NIFA, NIA), SUPARCO, PCCC, Pakistan Science Foundation (PSF), Federal Seed Certification & Registration Department (FSC&RD), Federal Plant Protection / Plant Quarantine, Banks, Rural Support Programs (RSPs), NGOs working in Agriculture and Rural Development and Private Pesticides Companies etc. They also can start their career through self-employment, as Plant Clinicians, Advisers / Consultants, Pesticide Dealers and by starting mushroom cultivation.

GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
AGR-301	Basic Agriculture	3 (2+1)
ENT-301	Introductory Entomology	3 (2+1)
PP-301	Introductory Plant Pathology	3 (2+1)
PPT-301	Fundamentals of Plant Protection	3 (2+1)
ENG-301	English Text, Grammar and Composition	3 (3+0)
MATH/BIOL-	Functional Mathematics / Biology	3 (3+0)
301		
SEMESTER-II		
PBG-302	Introductory Genetics	3 (2+1)
SS-302	Introduction to Soil Science	3 (2+1)
HORT-302	Introductory Horticulture	(2+1)
AGE-302	Introduction to Economics & Agricultural	(3+0)
	Economics	
CP-302	Introductory Crop Physiology	(2+1)
IS/EB-302	Islamic Studies / Ethics (Optional for Non-	(2+0)
	Muslim Students)	
BT-302	Introductory Biotechnology	(2+1)
SEMESTER-III		
SS-401	General Soil Science	(2+1)
AGR-401	Field Crop Production	(2+1)
PBG-401	Introductory Plant Breeding	(2+1)
PS-401	Pakistan Studies	(2+0)
HORT-401	Horticultural Crop Production	(2+1)

STAT-401	Elementary Statistics	(2+1)
FST-401	Introductory Food Science & Technology	(2+1)
SEMESTER-IV		
ENT-402	Applied Entomology	(2+1)
PP-402	Introduction to Plant Pathogens	(2+1)
AHV-402	Introductory Animal Husbandry	(1+1)
AEE-402	Introduction to Agricultural Extension &	(2+0)
	Education	
IT-402	Computer Application	(2+1)
PPT-402	Principles of Plant Protection	(2+1)
FPM-402	Farm Mechanization	(1+1)

DEPARTMENT OF ENTOMOLOGY

The history of the Department of Entomology dates to the beginning of formal agricultural education and research in Sindh, through the establishment of King George V Institute of Agriculture at Sakrand in 1939. With the up gradation of the Institute to Agriculture College and its shifting to Tandojam. the department remained its vital component. Later, in 1965, the department started B.Sc. Agri. (Hons) degree in the field of entomology. Presently, being an important component of the Faculty of Crop Protection, the department offers a 4-year B.Sc. (Hons.) degree in Entomology. In addition, it has a very strong post graduate program offering M.Sc. and PhD degree programs. The department has all basic facilities of teaching such as classrooms, 4 research laboratories, including Stored Grain Pests Research Laboratory, Insect Molecular Laboratory, Insect Systematic Laboratory, Insect Museum, Insect Biological Control Laboratory, experimental field and library. The department is actively involved in basic and applied research financed by various national and international donors. Department provides free agricultural extension services to the farming community and organizes short courses, trainings/workshops for farmers, students, NGO's, Agriculture extension and research workers.

ACADEMIC STAFF		
Imran Khatri	PhD (SAU)	Professor & Chairman
Bhai Khan Solangi	PhD (US)	Professor
Aslam Bukero	PhD (SAU)	Associate Professor
Syed Shahzad Ali	PhD (SAU)	Associate Professor

Lubna Bashir Rajput	PhD (China)	Associate Professor
Syed Ali Hyder	M.Sc. (Hons)	Assistant Professor
M. Ibrahim Kubar	M.Sc. (Agri.)	Assistant Professor
	Hons	
Arfan Ahmed Gilal	PhD	Assistant Professor
	Malaysia	
Fahad Nazir Khoso	PhD	Assistant Professor
	Malaysia	
Agha Mushtaque Ahmed	PhD	Assistant Professor
	Malaysia	
Khalid Hussain Dhiloo	PhD (China)	Assistant Professor
Sohail Ahmed Otho	PhD (China)	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	HRS.	
SEMESTE	R-V		
ENT-501	Insect Morphology	(2+1)	
ENT-503	Principles of Insect Taxonomy	(2+1)	
ENT-505	Insect Ecology	(2+1)	
ENT-507	Integrated Pest Management	(2+1)	
ENT-509	Insect Behavior	(2+1)	
ENT-511	Beneficial Insects	(2+1)	
SEMESTE	R-VI		
ENT-502	Insect Physiology	(2+1)	
ENT-504	Range and Forest Entomology	(2+1)	
ENT-506	Insect Classification and Biodiversity	(2+1)	
ENT-508	Insect Pests of Household, Men & Animals	(2+1)	
ENT-510	Agricultural Pests and their Management	(2+1)	
SEMESTE	R-VII		
ENT-601	Stored Product Pests and their Management	(2+1)	
ENT-603	Plant Resistance to Insect Pests	(2+1)	
ENT-605	Insecticides and their Application	(2+1)	
ENT-607	Agriculture and Environmental Pollution	(2+1)	
ENT-611	Insecticides and Public Health (For Non-Major)	(2+1)	
SEMESTE	SEMESTER-VIII		
ENT-602	Biological Control of Insect Pests	(2+1)	

ENT-604	Acarology	(2+1)
ENT-606	Scientific Writing and Presentation	(2+0)
ENT-610	Internship / Research Project	(0+4)

DEPARTMENT OF PLANT PATHOLOGY

The Department of Plant Pathology has a long and distinguished history, due to its importance for increasing the healthy and qualitative agricultural produce. This discipline covers causes, symptoms, perpetuation, transmission, and management of plant / crop diseases. The department was initially established as a main component of the King George-V, Agriculture Institute Sakrand in 1939. With the up gradation of the Institute to Agriculture College and its shifting to Tandojam, the department retained its vital role offering a B.Sc. (Agri.) Hons, degree in Plant Pathology. In addition, it has a very strong post graduate program offering M.Sc. (Agri.) Hons, and PhD in Plant Pathology degrees programs. The identification and cultivation of edible mushrooms, multiplication of antagonistic and other biological control organisms is also a major research component of the department. Consequently, graduates have excelled in various fields and made valuable contribution to the society. The department also offers free farmer advisory services to the farming community, organizes lectures, seminars, workshops and short courses for farmers, students, NGO's, Agriculture extension and research workers. The department is fully equipped with classrooms, laboratories, and experimental field.

ACADEMIC STAFF		
Manzoor Ali Abro	PhD (France)	Professor & Chairman
Khadim Hussain Wagan	PhD (SAU)	Assistant Professor
Zubair Ahmed Nizamani	M.Sc. (Agri.) Hons	Assistant Professor
Jamal-u-Ddin Hajano	PhD (China)	Assistant Professor
Faheem Uddin Rajer	PhD (China)	Lecturer (Adhoc)

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	HRS.
SEMESTER-V		
PP-501	Introduction to Plant Viruses	(2+1)
PP-503	Introduction to Plant Prokaryotes	(2+1)
PP-505	Introductory Mycology	(2+1)

PP-507	Introduction to Plant Parasitic Nematodes	(2+1)
PP-509	Seed and Post-Harvest Pathology	(2+1)
PP-511	Biotechnology and its Application in Plant	(2+1)
	Pathology	
SEMEST	TER-VI	
PP-502	Diseases of Field Crops	(2+1)
PP-504	Diseases of Vegetables Crops	(2+1)
PP-506	Plant Resistance to Diseases	(2+1)
PP-508	Soil Borne Plant Pathogens	(2+1)
PP-510	Plant Quarantine and SPS Measures	(2+1)
SEMEST	TER-VII	
PP-601	Diseases of Fruits and Ornamentals	(2+1)
PP-603	Beneficial Microorganisms for Sustainable	(2+1)
	Agriculture	
PP-605	Plant Disease Epidemiology	(2+1)
PP-607	Introductory Molecular Plant Pathology	(2+1)
PP-611	Beneficial Microorganisms for Sustainable	(2+1)
	Agriculture (For Non-Major)	
SEMEST	TER-VII I	
PP-602	Pesticides their Action and Application	(2+1)
PP-604	Methods and Techniques in Plant Pathology	(2+1)
PP-606	Abiotic Diseases of Plants	(2+0)
PP-610	Internship / Research Project	(0+4)

DEPARTMENT OF PLANT PROTECTION

The Department of Plant Protection was established in 1977 with the advent of Sindh Agriculture University, Tandojam, Pakistan. It is one of the most important disciplines of agriculture with a mission to develop and undertake educational and research programs that foster the creation and adoption of agricultural plant protection systems that are profitable, environmentally sound, and sustainable. Through its qualified graduates, it plays a pivotal role in providing technical backstopping to agricultural research and extension systems. The department also imparts training / education in community IPM through the Farmer Field School (FFS) approach. The department offers B.Sc. Agri. (Hons.) degree in Plant Protection. In addition, it has a very strong postgraduate program offering M.Sc. Agri. (Hons.) and PhD degrees in Plant Protection. The academic programs are designed to equip the students with

new techniques and principles of crop protection to improve crop management to be translated in a socially viable, competitive, and profitable agriculture for the farmers. The faculty members are actively engaged in different research programs, funded by national and international organizations. To facilitate the postgraduate students, three laboratories i.e., IPM Laboratory, Plant Diseases Diagnostic & Research Laboratory and Biocontrol Laboratory have set up, which are moderately equipped. The practical trainings emphasize identification of agriculturally useful natural enemies (insects and microorganisms) and mass production of biological control agents for field application. The department aims to introduce organic farming to rationalize the use of pesticides to conserve the environment, irrigation, soil and to minimize the health hazards.

ACADEMIC STAFF		
Imtiaz Ahmed Nizamani	PhD (SAU)	Professor & Chairman
Abdul Mubeen Lodhi	PhD (KU)	Professor
Rehana Naz Syed	PhD (Germany)	Professor
Muhammad Ali Khanzada	PhD (KU)	Associate Professor
Ibrahim Khaskheli	PhD (China)	Associate Professor
Khalid Hussain Qureshi	M.Sc. (Agri.) Hons	Assistant Professor
Abdul Waheed Solangi	PhD (China)	Cooperative Teacher

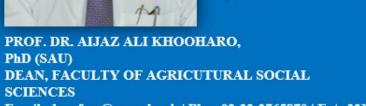
COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTI	ER-V		
PPT-501	Introduction to Pest Management	3 (2+1)	
PPT-503	Pests of Field Crops	3 (2+1)	
PPT-505	Plant Nematology	3 (2+1)	
PPT-507	Pest Ecology	3 (2+1)	
PPT-509	Introductory Acarology	3 (2+1)	
PPT-511	Introduction to Weeds & Phanerogamic Parasites	3 (2+1)	
SEMESTI	SEMESTER-VI		
PPT-502	Post-Harvest Pest Management	3 (2+1)	
PPT-504	Pests of Fruits, Vegetables & Ornamentals	3 (2+1)	
PPT-506	Principles of Plant Disease Management	3 (2+1)	
PPT-508	Pesticides & their Application Techniques	3 (2+1)	
PPT-510	Identification and Biology of Pests	3 (2+1)	

SEMESTER-VII		
PPT-601	Pest Scouting and Forecasting	3 (2+1)
PPT-603	Biological Control	3 (2+1)
PPT-605	Vertebrate Pest and their Management	3 (2+1)
PPT-607	Pollinators and Plant Protection	3 (2+1)
PPT-611	Field IPM (For Non-Major)	3 (2+1)
SEMESTER-VIII		
PPT-602	Urban Pest Management	3 (2+1)
PPT-604	Range and Forest Pest Management	3 (2+1)
PPT-606	Plant Biosecurity and Biosafety	2 (2+0)
PPT-610	Internship / Research Project	4 (0+4)

















FACULTY OF AGRICULTURAL SOCIAL SCIENCES

Faculty of Agricultural Social Sciences emerged as a faculty in 1984 after bifurcation of Faculty of Agriculture into three faculties. Nevertheless, various departments of this faculty have been offering graduate and postgraduate degree programs since 1975, when the university was defunct Sindh Agriculture College. The faculty plays an important role not only in offering degree programs in various disciplines, but it is also supporting the other academic programs of various faculties, offering compulsory courses in English, Pakistan Studies & Islamic Studies. The faculty has following academic departments:

- Agricultural Economics
- Agricultural Education Extension & Short Courses
- Statistics
- Rural Sociology
- English
- Islamic and Pakistan Studies

The first four departments are offering B.Sc. (Agri.) Hons., M.Sc. (Agri.) Hons and Ph.D respectively, whereas the remaining two departments are offering compulsory courses in their respective fields in all the Faculty of Agricultural Social Sciences as well as in all other faculties of the University. Department of Agricultural Economics has recently started B.Sc. (Hons) in Agribusiness Management and M.Sc (Hons) in Agribusiness Management (Off Campus Program). The faculty has a Computer Laboratory with internet facility for its faculty staff and the students. Besides this, a library has been established to cater the needs of the scholars/scientists and students of the faculty

JOB OPPORTUNITIES

The successful graduates of this faculty can serve as farm managers in agricultural estates. They also work as specialists in various disciplines of agriculture and allied sciences in public and private sector organizations,

autonomous and semi-autonomous bodies viz, Zarai Tarqiati Bank of Pakistan (ZTBP), Pakistan Agricultural Research Council (PARC), Agricultural Census, Agricultural Marketing, Pakistan Broadcasting corporation, all Commercial Banks, Sindh Irrigation and Drainage Authority (SIDA), Agro-Economic Research, Social Welfare Departments, National Planning Commission, USAID, FAO, IFPRI, ILRI, ICARDA, LEAD, Ford Foundation, National Talent Pool, China Pakistan Economic Corridor (CPEC) and agriculture consultancy firms, etc.

GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER	4-I	
MATH-301	Functional Mathematics	3 (3+0)
SS-301	Introduction to Soil Science	3 (2+1)
AGR-301	Basic Agriculture	3 (2+1)
ENT-301	Introductory Entomology	3 (2+1)
ENG-301	English Text Grammar & Composition	2 (2+0)
AEE-301	Introduction to Agril. Education Extension	3 (2+1)
IS/EB-301	Islamic Studies / Ethical Behavior	2 (2+0)
SEMESTER	2-II	
HORT-302	Introductory Horticulture	3 (2+1)
PP-302	Introduction to Plant Pathology	3 (2+1)
AgEc-302	Introduction to Economics & Agricultural	3 (3+0)
	Economics	
RS-302	Introductory Rural Sociology	3 (2+1)
ENG-302	Functional English	2 (2+0)
PS-302	Pakistan Studies	2 (2+0)
STAT-302	Introduction to Computer	3 (2+1)
SEMESTER-III		
AGR-401	Principles of Agronomy	3 (2+1)
PBG-401	Introduction to Plant Breeding & Genetics	3 (2+1)
PPT-401	Introduction to Pest Management	3 (2+1)
STAT-401	Elementary Statistics	3 (2+1)

AgEc-401	Introduction to Agribusiness Management and WTO	3 (3+0)
RS-401	Rural Development	3 (2+1)
SEMESTER	-IV	
AGR-402	Field Crop Production	3 (2+1)
ENT-402	Applied Entomology	3 (2+1)
FPM-402	Farm Mechanization	3 (2+1)
MATH-402	Calculus	3 (3+0)
STAT-402	Introduction to Probability & Random Variables	3 (2+1)
AEE-402	Introduction to Teaching Methods	3 (2+1)
ENG-402	Writing Skills	2 (2+0)

After completion of first two years, the students have choice of selecting any one of the following departments for next two years, which will be called as its major discipline.

DEPARTMENT OF AGRICULTURAL ECONOMICS

The Department of Agricultural Economics was established in 1975 with the aim to provide entrepreneurs that create wealth and developing the economy through agribusiness activities. The main objectives of the department are to produce academically competent and professionally efficient graduates who are able to manage and direct the nation's agricultural economy; to conduct research into the recurring problems and needs of the Pakistan's agricultural society in order to find short, medium and long-term solutions; and to develop new patterns of agricultural management through improved agricultural leadership, characterized by ability to innovate and increase reliance on the use of modern business techniques in agricultural production and marketing. The department offers B.Sc. (Agri) Hons, M.Sc. (Agri) Hons and PhD in the field of Agricultural Economics. Department of Agricultural Economics has announced the new degree program of B.Sc. (Hons) in Agribusiness Management; the department has also started M.Sc. (Hons) in Agribusiness Management (off campus program) recently.

ACADEMIC STAFF		
Tehmina Mangan	PhD (SAU)	Professor & Chairperson
Fateh M. Mari	PhD (SAU)	Professor
Habibullah Magsi	PhD (France)	Associate Professor
Hakimzadi Wagan	PhD (France)	Associate Professor
Jam G. Murtaza Sahito	PhD (Germany)	Associate Professor
SanaullahNoonari	M.Sc. (Agri.) Hons	Assistant Professor
Mumtaz Ali Joyo	M.Sc. (Agri.) Hons	Assistant Professor
Irfana Noor Memon	M.Sc. (Agri.) Hons	Assistant Professor
Mehar Ul Nissa Rais	M.Sc. (Agri.) Hons	Lecturer
Musawir A. Rustamani	M.Sc. (Agri.) Hons	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons. in Agricultural Economics		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-	-V	
AgEc-501	Microeconomics-I	3 (3+0)
AgEc-503	Macroeconomics-I	3 (3+0)
AgEc-505	Mathematics for Economists	3 (3+0)
AgEc-507	Agribusiness Management	3 (3+0)
AgEc-509	Food and Agricultural Marketing	3 (3+0)
Elective-I	Elective-I	3 (3+0)
SEMESTER-	-VI	
AgEc-502	Microeconomics-II	3 (3+0)
AgEc-504	Macroeconomics-II	3 (3+0)
AgEc-506	Agricultural Finance	3 (3+0)
AgEc-508	Mathematical Economics	3 (3+0)
Elective-I I	Elective	3 (3+0)
SEMESTER-VII		
AgEc-601	Econometrics-I	3 (3+0)
AgEc-603	Natural Resource Economics	3 (3+0)

AgEc-605	Development Economics	3 (3+0)
AgEc-607	Agricultural Production Economics	3 (3+0)
Elective-Ill	Elective	3 (3+0)
SEMESTER-VIII		
AgEc-602	Econometrics-II	3 (3+0)
AgEc-604	Agricultural Issues and Policies of Pakistan	3 (3+0)
AgEc-606	Research Methods in Social Sciences	3 (3+0)
AgEc-610	Internship / Report Writing	4 (0+4)

COURSES OFFERED FOR B.Sc. (Hons) in Agribusiness		
Management		
CODE	TITLE OF COURSE	C. HRS.
SEMESTE	R-V	
ABM-501	Microeconomics	3 (3+0)
ABM-503	Principles of Management	3 (3+0)
ABM-505	Introduction to Accounting	3 (3+0)
ABM-507	Managing Agricultural Supply Chain	3 (3+0)
ABM-509	Computer Application Business	3 (2+1)
SEMESTE	R-VI	
ABM-502	Macroeconomics	3 (3+0)
ABM-504	Agribusiness Management	3 (3+0)
ABM-506	Business Communication & Presentation Skills	3 (3+0)
ABM-508	Managerial Economics	3 (3+0)
ABM-512	Social Psychology and Self-Development	3 (3+0)
SEMESTE	R-VII	
ABM-601	Agricultural Marketing	3 (3+0)
ABM-603	Agricultural Finance	3 (3+0)
ABM-605	Business Research Methods	3 (3+0)
ABM-607	Human Resource Management in Agriculture	3 (3+0)
ABM-611	Business Mathematics & Statistics	3 (3+0)
SEMESTER-VIII		
ABM-602	Agribusiness Entrepreneurship	3 (3+0)

ABM-604	Corporate Strategy	3 (3+0)
ABM-606	Organizational Behavior	3 (3+0)
ABM-608	Managing Agricultural Supply Chain	3 (3+0)
ABM-610	Internship	4 (0+4)

DEPARTMENT OF AGRICULTURAL EDUCATION, EXTENSION AND SHORT COURSES

The Department of Agricultural Education, Extension and Short Courses offers course work which enables students to serve as social catalyst / extension educationist / social mobilizers in various farming communities / societies. The students after graduating are expected to work for the development of farmers through a holistic farm education approach and diffusion and adoption of need based latest agricultural technologies and training in various agricultural products. The department offers B.Sc. (Agri) Hons, M.Sc. (Agri) Hons and PhD in the field of Agricultural Education Extension.

ACADEMIC STAFF		
Zaheeruddin Mirani	PhD (USA)	Professor & Chairman
Aijaz Ali Khooharo	PhD (SAU)	Professor
Ismail Kumbhar	PhD (SAU)	Professor
Manzoor Ali Narejo	M.Sc. (Agri.) Hons	Assistant Professor
Jaleel Ahmed Ibupoto	M.Sc. (Agri.) Hons	Assistant Professor
Mukhtiar Ali Mirjat	M.Sc. (Agri.) Hons	Lecturer (Study Leave)

COURSES OFFERED FOR B.Sc. (Agri.) Hons. in AEE			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTE	SEMESTER-V		
AEE-501	Communication and Leadership Skills in Agriculture Extension	(2+1)	
AEE-503	Introduction to Extension Education Methods	(2+1)	
AEE-505	Philosophy of Agricultural Extension	(3+0)	

AEE-507	Rural Development Program in Pakistan	(3+0)
AEE-509	Agricultural Technology Transfer	(2+1)
Elective-I	Elective	(2+1)
SEMESTE	R-VI	
AEE-502	Agricultural Journalism	(2+1)
AEE-504	Adult Learning	(3+0)
AEE-506	Extension Program Development	(2+1)
AEE-508	Rural Youth in Agricultural Development	(2+1)
Elective-L	Elective	(2+1)
SEMESTE	R-VII	
AEE-601	Poverty Alleviation and Sustainable Development	(3+0)
AEE-603	Human Resource Development	(2+1)
AEE-605	Agricultural Extension and Gender Studies	(3+0)
AEE-607	Principles of Supervision and Administration	(2+1)
Elective- Ill	Elective	(2+1)
SEMESTE	R-VIII	
AEE-602	Introduction to Program Evaluation	(2+1)
AEE-604	Research Methods in Social Sciences	(2+1)
AEE-606	Technical Report Writing and Presentation	(2+0)
AEE-610	Internship / Projects	(0+4)

DEPARTMENT OF RURAL SOCIOLOGY

Since, the majority of Pakistan consists of rural people and what humans do fits under the category of social structure or social activity; rural sociology has gradually expanded its focus to such far-flung subjects in the creation of scientific knowledge. In addition, no event can happen without cause, therefore, the scope and importance of rural sociology is evident from its subjects-matter. Keeping this in mind, the department proposes following subjects to understand the ever-changing social phenomena, while ensuring the progress in rural societies. In particular, the department offers B.Sc.

(Agri) Hons, M.Sc. (Agri) Hons and Ph.D in the field of Rural Sociology.

ACADEMIC STAFF		
Muhammad <u>Jayed</u> Shaikh	PhD (Malaysia)	Associate Professor & Chairman
Ghulam Mujtaba Khushk	PhD (Malaysia)	Associate Professor
Mohammad Ali Sheikh	M.Sc. (Agri.) Hons	Assistant Professor
Arshad Ali Narejo	M.Sc. (Agri.) Hons	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons. in Rural Sociology		
CODE	TITLE OF COURSE	C. HRS.
SEMESTE	R-V	
RS-501	Community Development and Social Mobilization	3 (2+1)
RS-503	Sociology of Agriculture	3 (2+1)
RS-505	Disaster Risk Management	3 (2+1)
RS-507	Introduction to Population Studies	3 (2+1)
RS-509	Environmental Sociology	3 (2+1)
Elective-I	Elective	3 (2+1)
SEMESTE	R-VI	
RS-502	Medical Sociology	4 (3+1)
RS-504	Social Entrepreneurship	3 (2+1)
RS-506	Social Anthropology	3 (2+1)
RS-508	Gender Studies	3 (2+1)
Elective-II	Elective	3 (2+1)
SEMESTER-VII		
RS-601	Social Psychology and Organizational Behavior	3 (2+1)
RS-603	Industrial Sociology	3 (2+1)
RS-605	NGO & Project Management	3 (2+1)
RS-607	Sociology of Education	3 (2+1)

Elective- Ill	Elective	3 (2+1)
SEMESTE	R-VIII	
RS-602	Conflict Resolution	3 (2+1)
RS-604	Criminology	3 (2+1)
RS-606	Research Methods in Social Sciences	3 (2+1)
RS-610	Internship and Report Writing	4 (0+4)

DEPARTMENT OF STATISTICS

Statistics section was established in the defunct Sindh Agriculture College under the scheme "Intensification of the Graduate, Postgraduate and Advanced Studies" in 1967. Later in 1972-73, its status was raised to a full-fledged department, with aim to increase the awareness of the utility of statistical expertise across the campus, nationally and internationally. Whereas the other mandate is to serve through excellence in research and education in the statistical sciences and through service to the academia, researchers, statistical professionals, and the society at large. In particular, the department offers B.Sc. (Agri) Hons, M.Sc. (Agri) Hons and Ph.D in the field of Statistics.

ACADEMIC STAFF		
Velo Suthar	PhD (Malaysia)	Professor & Chairman
Riaz Ali Buriro	PhD (SU)	Professor
M. Hanif Lakho	PhD (UP)	Professor
Barkatullah Qureshi	PhD (Malaysia)	Professor
Gordhan Das	PhD (Austria)	Professor (study leave)
Naeem A. Qureshi	PhD (Germany)	Associate Professor
Bahauddin Baloch	M.Sc. (Hons)	Assistant Professor
Komal Abubakar	M.Sc. (Agri.) Hons	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons. in Statistics			
CODE TITLE OF COURSE C. HRS.			
SEMESTER-V			
STAT-501	Probability Distributions-I	3 (2+1)	

STAT-503	Linear Algebra	3 (3+0)	
STAT-505	Statistical Inference-1	3 (2+1)	
STAT-507	Index Number and Time Series Analysis	3 (2+1)	
STAT-509	Statistical Packages	3 (2+1)	
Elective-I	Elective	3 (2+1)	
SEMESTER-	VI		
STAT-502	Regression Analysis	3 (2+1)	
STAT-504	Probability Distributions-11	3 (2+1)	
STAT-506	Sampling Techniques-I	3 (2+1)	
STAT-508	Econometrics	3 (2+1)	
Elective-II	Elective	3 (2+1)	
SEMESTER-	SEMESTER-VII		
STAT-601	Design & Analysis of Experiments-I	3 (2+1)	
STAT-603	Sampling Techniques-11	3 (2+1)	
STAT-605	Categorical Data Analysis	3 (2+1)	
STAT-609	Linear Models	3 (2+1)	
Elective-Ill	Elective	3 (2+1)	
	SEMESTER-VIII		
STAT-602	Design & Analysis of Experiments-II	3 (2+1)	
STAT-604	Statistical Quality Control	3 (2+1)	
STAT-606	Biometry and Medical Statistics	2 (2+0)	
STAT-610	Internship and Report Writing	4 (0+4)	

DEPARTMENT OF ISLAMIC AND PAKISTAN STUDIES

The Department of Islamic and Pakistan Studies is responsible for imparting Islamic and Pakistan Studies related education to the graduate and postgraduate students. The department provides compulsory courses up to degree level. The department assists Sindh Agriculture University, Tandojam to conduct Islamic and Pakistan related activities at the national and provincial level.

ACADEMIC STAFF		
Abu Sajid M. Samo	M.A.	Assistant Professor & Incharge
	 	Chairman
Mumtaz Bano Bhatti	M.A.	Assistant Professor
Abdul Munaim Brohi	Shahada-tul-	Assistant Professor
	Almia	I I I

Munawaruddin Sahito	M.A.	Assistant Professor
Faqir Muhammad	M.Sc. (QAU)	Assistant Professor
Hub		1 1 1 1

GENERA	GENERAL COURSES OFFERED FOR (B.Sc. / B.E. / DVM)		
CODE	TITLE OF COURSE	HRS.	
SEMESTE	ER-I		
IS-301	Islamic Studies OR Ethical Behavior (Optional for	(2+0)	
	Non-Muslim Students) (CPD, CPT, FASS, IT,		
	FAE)		
PS-301	Pakistan Study (FAHVS)	(1+0)	
PS 313	Pakistan Studies (IFST)	(2+0)	
SEMESTE	ER-II		
PS 302	Pakistan Studies	(2+0)	
IS 316	Islamic Studies (IFST)	(1+1)	
SEMESTE	ER-III		
IS-401	Islamic Studies or Ethics (For Non-Muslims)	(1+0)	
	(FAHVS)		
PS 401	Pakistan Study (IT)	(2+0)	
SEMESTE	ER-IV		
PS 502	Pakistan Study	(1+0)	

DEPARTMENT OF ENGLISH

The department has played a remarkable and vital role since its inception. The department continued its journey as the college attained the status of the University and the journey has been in progress with success. It has proved its worth on several occasions i.e., imparting training to the teachers of this University and offering useful remedial courses to be taught from time to time. This department voluntarily extends services to the teachers for their preparation in IELTS and TOEFL. The department of English is an important component of the university. It offers compulsory courses from 1st year to 3rd year in all faculties, including IFST & ITC of this university.

ACADEMIC STAFF		
Shabana Sartaj Tunio	PhD. (Malaysia)	Associate Professor
Amin M. Soomro	M.A. (US)	Assistant Professor &

		Incharge Chairman
Shahzeb S. Memon	BS (Hons)	Lecturer

COURSES	OFFERED FOR (B.Sc. /BE/ DVM)	
CODE	TITLE OF COURSE	C. HRS.
	SEMESTER-I	
ENG-301	English Text, Grammar and Composition	(2+0)
	(FASS, FCPD, FCPT)	
ENG 301	English Comprehension (ITC)	(3-0)
ENG-301	Functional English (AHVS, IFST)	(2+0)
	SEMESTER-II	
ENG-302	Functional English (FASS)	(2+0)
ENG-401	Communicative Skills (ITC)	(3+0)
ENG-102	Communicative English (AHVS)	(2+0)
ENG-101	Functional Grammar	(2+0)
	SEMESTER-IV	
ENG-402	Writing skills (FASS)	(2+0)
	SEMESTER-V	
ENG-01	Technical Report Writing (FAE)	(2+0)
	SEMESTER-VI	
ENG-601	Communicative Skills	(2+0)
	SEMESTER-VIII	i
ENG-606	Scientific Report Writing (FASS)	(2+0)
ENG-402	Functional English II (IFST)	(2+0)







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INFORMATION TECHNOLOGY CENTRE

Information Technology Centre (ITC) was established in March 2002 at Sindh Agriculture University Tandojam under a development project approved by the Government of Pakistan. It was established with a strong commitment to impart quality education to the youth of the country in general and the province of Sindh in particular face the future challenges of the new millennium in Information Technology in order to produce high order professionals with academic excellence.

The ITC is striving to provide the highest quality technology-based manpower and services, in the most cost-effective manner, and to facilitate the SAU mission as it applies to the management, teaching, learning, and services at the grassroots level to improve the quality of education by producing trained and qualified manpower in the country in general and in the province of Sindh in particular in accordance with ever changing global trends in information sharing.

MISSION STATEMENT

The focus of ITC is to offer advanced and updated technology training needed for strong base with a clear understanding of the key subjects required for opening ways in adopting a number of professions in the field of IT, depending upon one's aptitude during training and promoting independence in learning. The specific objectives are to offer a modern IT education system and market-oriented syllabus, a unique academic environment that prepares students to become successful professionals in a modern world dominated by IT.

Bring meaningful, productive IT education, ensuring that every student receives the due right, accessible and affordable IT education and required talent. Provide a qualified, <u>caring</u> and dedicated IT faculty who are committed to serve the community by providing quality education of an international standard.

The Centre has six air conditioned and well-equipped computer laboratories with the latest computer hardware and software facilities, including audiovisual equipment's and teaching aids. There is also an air-conditioned

electronics lab to conduct the related practical. This lab is fully equipped with analog and digital trainers, micro-processor trainers and other relevant equipment.

The Centre has internet facility for the teachers and the taught. In addition, the Centre has multimedia projectors, televisions, digital cameras, digital microscope, scanners, color printers, laser jet printers and dot matrix printers, with all supporting licensed software. Moreover, by the efforts of senior faculty members of ITC, Sindh Agriculture University Tandojam, Pakistan is now a member of the Visual Paradigm Academic Partners Program (VPAPP). Visual Paradigm International grants VPAPP members a full working version of Visual Paradigm Standard Edition and free upgrades to the latest version during the membership period. It is the VPAPP member's responsibility to renew this membership when license period is about to expire. The software is to be solely used for teaching purposes. VPAPP members are permitted to distribute their license only to their tutors and students. AII Visual Paradigm Academic Partner Licenses are granted for academic, non-commercial purposes only. Licensees under this arrangement must certify that they will use Visual Paradigm products exclusively for providing educational services, and do not intend to use them for the benefit of third parties.

Students of final year are assigned projects of their interest to undertake studies and develop software as per the requirement of the degree and the market. Project Lab, established in an air-conditioned room fully equipped with latest computers and software, is available for final year students to complete their projects. There is a capacity of 8 students to work at a time on 8 individual final year project for the fulfillment of BSIT (Hons) degree program.

In addition to above academic facilities, digital library facility is also provided to the faculty as well as students with the assistance of Higher Education Commission under the Program for Enhancement of Research Information (PERI). Postgraduate students and researchers of Sindh Agriculture University, Tandojam have access to thousands of online research journals and other research publications. With this facility, the faculty members, and researchers of the Sindh Agriculture University, Tandojam can access over 11,000 latest research journals and other research material through the university network. To access the online journals using

the Internet, a high bandwidth Internet connection of 80 MBPS is provided by HEC through Pakistan Education and Research Network (PERN).

Furthermore, the most sophisticated and advanced Video Conference Room is established at Information Technology Centre with the assistance of Higher Education Commission to facilitate students and faculty to communicate at local, <u>national</u> and international levels for the purpose of education and information dissemination with a capacity of more than 60 persons.

Information Technology Centre (ITC) is responsible for imparting quality education in the field of information and communication technologies (ICT). To fulfil this goal, ITC is currently offering a program i.e. four years Bachelor's in Information Technology, BS (IT) Hons.

JOB OPPORTUNITIES

The BS (IT) Hons program at ITC educate students with the fundamental abilities to design and implement software applications and works on networks and web design. It also provides opportunities to the under graduates to get jobs in the development sector in various positions such as an office support Managers (word processing, spreadsheet, database, and accounting), the internet specialists, network administrators, IT managers, the Internet service provider experts and specialized professional software developers (multi-media, website development and Commerce), lecturers and instructors in IT.

ACADEMIC STAFF			
Mansoor Hyder Depar	PhD (Germany)	Associate Professor & Director	
Mubina Pathan	PhD (Malaysia)	Associate Professor	
Mir Sajjad Hussain Talpur	PhD (China)	Associate Professor	
Mukhtiar Memon	PhD (Austria)	Associate Professor	
Pinial Khan Butt	PhD (China)	Associate Professor	
Miss Erum Saba Chang	M.E. (MUET)	Assistant Professor	

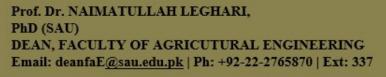
Kavita Tabassum	M.E. (MUET)	Assistant Professor
Farah Naveen	MSIT (SAU)	Assistant Professor
Irfan Ali Shahani	MSIT (MAJU))	Assistant Professor
Saima Sheikh	MSIT (SAU)	Assistant Professor
Saima <u>Tunio</u>	MSIT (ISRA)	Lecturer (study leave)
Suhni Abbasi	M.S (ISRA)	Lecturer
Zulfikar Ahmed Maher	M.S (Malaysia)	Lecturer
Dr. Muhammad Yaqoob Koondhar	PhD (Malaysia)	Lecturer (Adhoc)
Mr. Noor Nabi Daheri	MSIT (SAU)	Lecturer (Contract)
Muhammad Bux	B.E. (MUET)	Lecturer (Contract)
Toufique Nizamani	MSIT (SAU)	Lecturer (Contract)

COURSES OFFERED FOR BS(IT) Hons.			
CODE	TITLE OF COURSE	HRS.	
SEMESTER-	Ī		
ITC-301	Fundamentals of Information and	3 (2+1)	
	Communication Technologies (ICT)		
ITC-303	Basic Electronics	3 (2+1)	
ITC-305	Programming Fundamentals	4 (3+1)	
BE-301	Calculus and Analytical Geometry	3 (3+0)	
ENG-301	Functional English	3 (3+0)	
IS-301	Islamic Studies / Ethics 2 (2+0)		
SEMESTER-II			
ITC-302	Object Oriented Programming	3 (2+1)	
ITC-304	Digital Logic Design	3 (2+1)	
ITC-306	Discrete Structure	3 (3+0)	
ITC-308	Principal of Management	3 (3+0)	
ENG-302	Communication Skills	3 (3+0)	
STAT-302	Probability and Statistics	3 (3+0)	
SEMESTER-III			
ITC-401	Data Structure and Algorithms	4 (3+1)	

ITC-403	Computer Communication and Networks	3 (3+0)	
ITC-405	Principles of Accounting	3 (3+0)	
ITC-407	Telecommunication System	3 (2+1)	
ENG-401	Technical Report Writing	3 (3+0)	
BE-401	Linear Algebra	3 (3+0)	
SEMESTER-	IV		
ITC-402	Organizational Behavior	3 (3+0)	
ITC-404	Internet Architecture	3 (3+0)	
ITC-406	Software Engineering	3 (3+0)	
ITC-408	Database Systems	4 (3+1)	
ITC-410	Multimedia System and Design	3 (2+1)	
PS-402	Pakistan Studies	2 (2+0)	
SEMESTER-	V		
ITC-501	Bioinformatics	3 (3+0)	
ITC-503	Operating Systems	3 (3+0)	
ITC-505	Object Oriented Analysis and Design	3 (2+1)	
ITC-507	Database Administration and Management	3 (2+1)	
ITC-509	Web Systems& Technologies	3 (2+1)	
ITC-511	Technology Management	3 (3+0)	
SEMESTER- VI			
ITC-502	Human Computer Interaction	3 (2+1)	
ITC-504	Systems and Network Administration	3 (2+1)	
ITC-506	Web Engineering	3 (2+1)	
ITC-508	Mobile Application Development	3 (2+1)	
ITC-510	System Integration and Architecture	3 (3+0)	
ITC-512	IT Project Management	3 (3+0)	
SEMESTER-			
ITC-601	Data and Network Security	3 (3+0)	
ITC-603	Routing and Switching	3 (2+1)	
ITC-605	Service Oriented Architecture	3 (3+0)	
ITC-607	Cloud Computing	3 (2+1)	
SEMESTER-	VIII		
ITC-602	Software Quality Assurance	3 (3+0)	
ITC-604	Professional Practices	3 (2+1)	
ITC-606	Artificial Intelligence	3 (2+1)	
ITC-608	Capstone Project	6 (0+6)	

















FACULTY OF AGRICULTURAL ENGINEERING

The faculty of Agricultural Engineering is among the five faculties of Sindh Agriculture University Tandojam. Initially, it started as a department of Agricultural Engineering of the defunct Sindh Agriculture College Tandojam in 1955. The department was upgraded into a full-fledged Faculty of Agricultural Engineering in 1977. Faculty has played a leading role in providing engineering solutions to agricultural problems and is devoted to meet the needs of people of Sindh and Pakistan in general. Its primary goal is to take leading role in the promotion of technological changes and their management for sustainable agricultural development in the province of Sindh through high level education, research, and outreach activities by integrating technology, planning and management. The dissemination of quality education, research, and training with special emphasis on interdisciplinary interface among the technological and educational expertise is the focus of the faculty.

At present, the faculty offers a four-year B.E. (Agri) degree program. The program provides a fundamental understanding of the natural, basic, and engineering sciences and their application to design devices and processes in any general area. A permutation of courses caters to the design and engineering aspects related to agriculture. The focus span starts with basic principles of engineering themes like irrigation systems, soil and water management, farm machinery, farm structures, environment, energy, and resource management to ultramodern geographic information systems (GIS), remote sensing (RS), electronics and instrumentation applications related to the agriculture. M.E., M.Phil., and PhD degree programs are also offered in various disciplines including irrigation and drainage, land and water management, farm machinery, energy and environment, and farm structures. Besides teaching, the faculty is actively engaged in extension and leading-edge research. The regular professional education and research activities are carried out in the six integral departments as under:

- Irrigation and Drainage
- Farm Power and Machinery
- Land and Water Management
- Farm Structures

- Energy and Environment
- Basic Engineering

The Faculty of Agricultural Engineering strives to attain excellence in teaching and research, where students are urged to excel in qualification and competency with basic and applied research as well as technology transfer and outreach activities including consultancy. The faculty has highly qualified teaching staff with well-equipped laboratories, workshop facilities, field experimental area, library, computer lab, auditorium, and seminar hall. Graduates of the faculty are registered with Pakistan Engineering Council as Professional Engineers. The B.E. (Agri.) degree holders are eligible to be appointed as Professional Engineers in the engineering related fields. They are capable to undertake any professional engineering task in the field of Agricultural Engineering.

MISSION STATEMENT

The mission of the faculty is to strive for excellence in education, research, and outreach in the agricultural sector for sustainable development. We expand students' knowledge and skills in Agricultural Engineering by giving professional and academic training in the areas of Irrigation & Drainage Engineering, Land & Water Management, Mechanization & Farm Machinery, Post-Harvest Technology, Farm Structures and Environmental Engineering.

PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

PEO's of the program were prepared by the outcome Based Education (OBE) committee. During preparation of PEO's, the vision of the Institute and mission statements were kept in mind. The PEO's are prepared based on stakeholders' needs and linked with twelve program learning outcomes.

At the end it was confirmed that the PEOs are in line with vision and mission statements of the University and the Faculty of Agricultural Engineering.

The PEOs of BE (Agricultural Engineering) Program are as under

- Explain knowledge of Agricultural Engineering based on analytical, scientific, and engineering problems.
- Present knowledge of technical and management along with critical thinking, problem solving and effective communication.
- Application of knowledge on social, financial, and environment problems and contribute in ethical and responsible manner.
- Demonstrate skills to work independently as well in diverse teams for continual professional growth.

The twelve graduate attributes provided by the PEC as per manual of Accreditation 2014 have been adopted by the Agricultural Engineering program as the Program Learning Outcomes (PLOs) for its Bachelor of Engineering (B.E.) Program. It is ensured that these PLOs are achieved by respective CLOs of the curriculum as assessed through both direct and indirect methods. The curriculum has also been updated and CLOs for each course is designed along with its difficulty level as per Blooms taxonomy i.e., cognitive, affective and psychrometer.

JOB OPPORTUNITIES

Graduate Engineers holding B.E. (Agri.) degree are eligible for registration as Professional Engineers with Pakistan Engineering Council (PEC). They are entitled to perform as professional engineers in public or private organizations on a post requiring the expertise of an agricultural engineer.

Our graduate engineers are employed on key positions in federal and provincial organizations including Universities, Research organizations like Environmental Protection Agency (EPA), Agriculture Research, Agriculture Extension, Agricultural Engineering, Sindh on Farm Water Management (SOFWM), Pakistan Agriculture and Storage Corporation (PASCO), Pakistan Agriculture Research Council (PARC), Pakistan Council of Research in Water Resources (PCRWR), Water and Power Development Authority (WAPDA), Sindh Irrigation and Drainage Authority (SIDA), International Water-logging and Salinity Research Institute (IWASRI), Drainage and Reclamation Institute of Pakistan (DRIP), Lower Indus Water Management and Reclamation Research (LIM) Project, Zarai Taraqiati Bank (ZTBL), International Water Management

Institute (IWMI), Rural Development Department, various Semi Government and Autonomous Bodies, and NGO's like SAFWCO, WWF, NRSP, SPO, RDF and other departments of Agriculture, consulting companies and related sectors.

REMOTE SENSING AND GIS LABORATORY

Accurate estimation and forecasting of agriculture statistics is essential to a country's economy, food security and agricultural market development. Pakistan needs quality agricultural monitoring and real time statistics because so much of its economy as well as food security depends on a thriving agricultural sector. Thus, a Remote sensing (RS) and Geo Information Systems (GIS) laboratory was established in the faculty during 2014 in collaboration with Food and Agriculture Organization (FAO) of the United Nations and United States Department of Agriculture (USDA), under the FAO project, "Building Provincial Capacity in Pakistan for Crop Forecasting and Estimation.

The RS / GIS Laboratory provides an environment where faculty, staff and students work together to advance knowledge in the application of geospatial technologies in Agriculture, Environment, Ecosystem and Natural Resources Management. The mission of the Laboratory is to:

- Integrate state-of-the-art remote sensing (RS), geographic information system (GIS), and global positioning (GPS) technologies with Agriculture Monitoring and Management to address relevant issues.
- Transfer knowledge and skills to the undergraduate and postgraduate students, teaching faculty and farming community through education, outreach, and training.
- Conduct scientific research focused on agriculture monitoring, environmental issues, and water management.
- Make digital geospatial data of Sindh readily available for use in variety of related issues in agriculture.

DEPARTMENT OF IRRIGATION AND DRAINAGE

The reliable water supplies for irrigated agriculture are instrumental to feed the growing population in the developing countries including Pakistan. However, they are declining with each passing day; hence their efficient utilization and management is crucial for sustainable agriculture. The water resource, irrigation and drainage engineers are educated and trained to recognize the complex problems related to the planning, designing, and utilizing the available water resources. This is only possible through better water application methods, conservation techniques, and water management practices. The government of Pakistan has been putting efforts to ensure water supplies for irrigated agriculture, industry, and domestic purposes. During past 65 years, several mega projects were launched in the fields of irrigation, drainage, and water resources engineering. Keeping in view the complexity of the water related problems, the Department of Irrigation and Drainage was established in 1977 under the umbrella of Faculty of Agricultural Engineering to produce young engineers and scientists in this field. Since then, it has remained as one of the foremost departments of the faculty. The department is actively involved in teaching and research activities at undergraduate levels. It contributes more than 30% of the courses in a composite graduate degree program. This department offers postgraduate degree programs of M.E and Ph.D. in irrigation and drainage.

The department works for the refinement of vision and skills of graduate and postgraduate professionals with distinction in the field of irrigation, drainage, soil, and water resources engineering. Our aim is to produce young, generous, highly motivated, and talented professional engineers, who uphold and advance for the integrity, honor, dignity, and development of their profession. They should understand the future water demands and offer better solutions using their skills and knowledge.

The department of irrigation and drainage is enriched with a well-qualified faculty who always strive to provide cutting-edge research opportunities that will place graduates at the forefront of new developments in engineering. The adequate classrooms established computer lab, well equipped soil, water and hydraulic engineering labs and departmental library provide conducive environment for learning. There is an

experimental station to demonstrate and conduct field experiments located at the Latif Farm. A weather station is also installed at the station.

In the last year, the department of irrigation and drainage produced 6 postgraduate students who completed their M.E degrees.

ACADEMIC STAFF					
Mashooque Ali Talpur	PhD (China)	Associate Professor & Chairman			
Irfan Ahmed Shaikh	PhD (Malaysia)	Associate Professor			
Shamim Ara Memon	M.E. (Norway)	Assistant Professor			
Rajesh Kumar Soothar	PhD (China)	Assistant Professor			
Muhammad Uris Mirjat	M.E. (MUET)	Assistant Professor			

COURSES OFFERED FOR B.E (Agri.)				
CODE	TITLE OF COURSE	C. HRS.		
SEMEST	ER-II			
ID-310	Engineering Hydrology	3 (2+1)		
SEMEST	ER-III			
ID-411	Soil Mechanics	3 (2+1)		
SEMEST	ER-IV			
ID-402	Fluid Mechanics	3 (2+1)		
SEMEST	SEMESTER -V			
ID-507	Hydraulic Machinery and Pipe Flow	3 (2+1)		
SEMESTER-VI				
ID-506	Pumps and Tube wells	3 (2+1)		
SEMEST	ER-VII			
ID-605	Irrigation Engineering	3 (2+1)		
SEMEST	SEMESTER-VIII			
ID-604	Drainage Engineering	3 (2+1)		
AE-612	Project Report and Seminar	2 (1+1)		

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DEPARTMENT OF FARM POWER AND MACHINERY

The Department of Farm Power and Machinery was established in 1977 as one of the major departments in the faculty to cater the manpower needs of Sindh and Baluchistan. It offers graduate and postgraduate degree programs since its inception. Initially, it offered M.Sc. (Hons.) in Farm Mechanization. Later, it started offering M.E. and Ph.D. degree programs to graduates having B.E. (Agri.) and B.E. (Mech.) degrees. The department has highly qualified faculty members. It has modern and well-equipped laboratories and workshop. Besides teaching and research, the department provides advisory services to farmers and offers short trainings on various aspects of farm mechanization and machinery as to increase crop production.

The mission of the department is to provide leadership and excellence in teaching, research and outreach in farm power and machinery at graduate and postgraduate levels. The department has well equipped Agricultural Engineering Workshop, Machinery Hall, Power Units Garage, Mechanical and Electronics Laboratories, Drawing & Design Laboratory, Machine Shop, Welding, and smithy Shops.

In the last year, the department of Farm Power and Machinery produced 01 postgraduate student who completed their M.E degree.

ACADEMIC STAFF		
Ahmed Ali Tagar	Ph.D (China)	Associate Professor & Chairman
Naimatullah Leghari	Ph.D (SAU)	Professor& Dean
Abdul Qadir Mughal	Ph.D (UK)	Professor Emeritus
Farman Ali Chandio	Ph.D (China)	Associate Professor
Faisal Mahmood	PhD (China)	Assistant Professor
Ameet Kumar	M.E. (SAU)	Assistant Professor
Abdul Sattar	M.E. (SAU)	Assistant Professor
Mashori	- - - - - -	

COURSES OFFERED FOR B.E (Agri.)			
CODE TITLE OF COURSE C. HRS.			
SEMESTER-I			

	:	·		
FPM-309	Metallurgy and Workshop Practices	3 (2+1)		
SEMESTER-II	[
FPM-306	Engineering Drawing and Graphics	3 (2+1)		
SEMESTER-II	П			
FPM-407	Instrumentation and Measurements	3 (2+1)		
SEMESTER-IV	SEMESTER-IV			
FPM-410	IC Engines and Tractors	3 (2+1)		
SEMESTER-V				
FPM-503	Farm Machinery	3 (2+1)		
SEMESTER-VI				
FPM-512	Machine Design	3 (2+1)		
SEMESTER-VII				
FPM-609	Farm and Earth Moving Machinery	3 (2+1)		
SEMESTER-VIII				
AE-612	Project Report and Seminar	2 (1+1)		

DEPARTMENT OF LAND AND WATER MANAGEMENT

Soil and water are the key natural resources for the sustainability of flora and fauna and environmental system. But unfortunately, they are being used unwisely resulting in threat to the sustainability of agriculture and the environment. So far, in Pakistan enormous sums of money are spent on the planning, design, construction and maintenance of farm irrigation systems but many failed to meet the planned agricultural and social objectives, it has now been recognized that one of the main reasons for this is the lack of human resources with the proper technical and managerial skills needed to install, operate, and manage the schemes successfully. Keeping in view the importance of technical education in Land and Water Resources Management, Department of Land and Water Management was established in December 1985 in the Faculty of Agricultural Engineering in order to produce graduates with technical expertise in the management of land and water resources. This department offers postgraduate degree programs of M.E and Ph.D. in Land and Water Management.

The department imparts quality education to the students through wide range of subjects and research to enhance the productivity of land and water

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resources to meet future demands of food and fiber. In addition, the department also provides trainings and advisory service to the farming community of the country. The department plays a leading role in imparting quality education in the field of soil and water conservation and management. The mission of the department is to produce highly motivated and talented professional engineers with expertise in the field of soil and water resources conservation and management.

The department has well equipped lab with latest equipment used for land surveying and leveling, soil and water testing, and watercourse design and construction.

In the last year, the department of Land and Water Management produced 6 postgraduate students who completed their M.E degrees.

ACADEMIC STAFF			
Altaf Ali Siyal	PhD (UK)	Professor & Chairman	
Abdul Ghafoor Siyal	PhD (Malaysia)	Professor	
Munir Ahmed Mangrio	PhD (SAU)	Professor	
Shaukat Ali Soomro	M.E. (SAU)	Assistant Professor	
Abdul Saboor Soomro	M.E. (SAU)	Assistant Professor	

COURSES OFFERED FOR B.E (Agri.)				
CODE	TITLE OF COURSE	C. HRS.		
SEMESTER	4-I			
LWM-311	Soil Science	2 (1+1)		
SEMESTER	SEMESTER-II			
LWM-312	Surveying and Levelling	3 (2+1)		
SEMESTER	SEMESTER-III			
LWM-403	Farm Irrigation Systems	3 (2+1)		
SEMESTER	L-V			
LWM-501	Soil Physics	3 (2+1)		
SEMESTER-VI				
LWM-508	Saline Sodic and Waterlogged Soils	3 (2+1)		
SEMESTER-VII				

LWM-607	Soil and Water Conservation Engineering	3 (2+1)
SEMESTER	2-VIII	
LWM-606	Water Management Practices	3 (2+1)
AE-612	Project Report and Seminar	2 (1+1)

DEPARTMENT OF FARM STRUCTURE

The department of Farm Structures was established in 1977 for providing technical knowledge in three main areas i.e., Farm Structures, Post-harvest and Process Engineering in Agriculture and Rural Electrification. The department offers courses at graduate (B.E.) and postgraduate (M.E. & PhD) level. There are well qualified staff members capable to serve the purpose of enhancing technological knowledge of youth in Agriculture, Structures and Electrification. This department offers postgraduate degree programs of M.E and Ph.D. in Farm structures and Process engineering.

This department also provides advisory services to the progressive farmers in the field of Post-harvest and Process Engineering in the field of agriculture for improving the quality and quantity of farm produce.

The mission of department is to produce the technical as well as skilled persons for the society in general and to benefit the individual end users.

In the last year, the department of Farm Structures produced 02 postgraduate students who completed their M.E degrees.

ACADEMIC STAFF			
Bakhtawar Wagan	PhD (China)	Professor & Chairperson	
Shakeel Hussain Chattha	PhD (Malaysia)	Associate Professor	
Shakeel Ahmed Soomro	PhD (China)	Assistant Professor	
Zaheer Ahmed Khan	M.E. (SAU)	Lecturer	

COURSES OFFERED FOR B.E (Agri.)			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTER-II			
FS-308	Engineering Materials	2 (2+0)	

SEMESTER-III			
FS-409	Strength of Materials	2 (2+0)	
SEMESTER	R-IV		
FS-412	Basic Rural Electrification	2 (2+0)	
SEMESTER	R-V		
FS-505	Theory of Structures	3 (2+1)	
SEMESTER	SEMESTER-VI		
FS-502	Agricultural Process Engineering 3 (2+1)		
SEMESTER	SEMESTER-VII		
FS-603	Post-Harvest Engineering (Elective)	3 (2+1)	
SEMESTER-VIII			
FS-608	Farm Structures	3 (2+1)	
AE-612	Project Report and Seminar	2 (1+1)	

DEPARTMENT OF ENERGY AND ENVIRONMENT

The department of Energy and Environment was established in the year 1995 in the Faculty of Agricultural Engineering. The department offers courses in energy related areas with main emphasis on the efficient use of available energy resources and to develop the renewable energy resources to minimize reliance on fossil fuels. The management and disposal of agricultural and industrial wastes is one of the major areas of its concern. The department also offers courses on environmental engineering, agroindustrial management, and waste utilization. This department offers postgraduate degree programs of M.E and Ph.D. in Energy and Environment.

It also deals with the changes that occur in the eco-system through manmade interventions to protect and preserve the environment from external influences. It focuses on the agro-industrial development and its management strategies. Apart from the academic activities, the department is involved in project research and consultancy. The department has contributed to the design of various machines for the use of farmers and remained involved in the projects sponsored by the national and international organizations. The department works for the manpower development to formulate strategies for sustainable development, effective use of water, explore sustainable energy alternatives reducing reliance on fossil fuels, sustainable land management to combat desertification and land degradation, conservation of biodiversity, and planning to reduce land, water and air pollution on local, regional and global perspective.

In the last year, the department of Energy and Environment produced 4 postgraduate students who completed their M.E degrees.

ACADEMIC STAFF			
Mahmood Leghari	PhD (China)	Associate Professor & Chairman	
Hafizur Rehman Mangio	PhD (SAU)	Associate Professor	
Ghulam Shabir Keerio	M.E. (MUET)	Assistant Professor	

CODE	TITLE OF COURSE	C. HRS.	
SEMESTI	SEMESTER-I		
EE-305	Industrial Chemistry	3 (2+1)	
SEMEST	ER-II		
EE-304	Environmental Engineering	3 (2+1)	
SEMEST	ER-III		
EE-405	Water Quality and Wastewater Engineering	3 (2+1)	
SEMEST	ER-IV		
EE-406	Energy Resources and Management	3 (2+1)	
SEMEST	ER-VI		
EE-504	Environmental Management Systems for Industry	3 (2+1)	
SEMEST	ER-VII		
EE-601	Solid Waste Management	3 (2+1)	
SEMESTER-VIII			
AE-612	Project Report and Seminar	2 (1+1)	

DEPARTMENT OF BASIC ENGINEERING

The Department of Basic Engineering was established in 1977 as one of the departments of Faculty of Agricultural Engineering. The department deals with various supporting courses like Applied Mathematics, Applied Physics, Computer Science and Engineering Mechanics with special application in Agricultural Engineering. The supporting course of Functional Mathematics is offered to the faculties of Crop Production, Crop Protection, Agriculture Social Sciences and Animal Husbandry and Veterinary Sciences. The department also offers two courses of Mathematics to the Information Technology Centre and one course to Institute of Food Sciences Technology.

The missi of the department is to provide leadership and excellence in teaching, research and outreach in Engineering Mechanics and Computer Science with Applied Mathematics at the graduate and postgraduate levels. Engineering Mechanics and Applied Physics laboratory and Computer Lab are available forteaching to graduate and postgraduate students.

ACADEMIC STAFF			
Muhammad Aslam Samo	M.Sc. (US)	Assistant Professor & Incharge chairman	
Ghulam Shabbir Bughio	M.Sc. (US)	Assistant Professor	
Saleem Ahmed Naich	MPhil (MUET)	Lecturer	
Veeromal Bheel	MPhil (MUET)	Lecturer	
AmanullahTunio	MPhil (MUET)	Lecturer	

COURSES OFFERED FOR B.E (Agri.)			
CODE	TITLE OF COURSE	HRS.	
SEMEST	SEMESTER-I		
BE-303	Linear Algebra and Calculus	(3+0)	
BE-313	Fundamentals of Computer	(0+1)	
SEMESTER-II			
BE-302 Applied Physics (2+1)			
SEMESTER-III			

BE-401	Engineering Mechanics	(2+1)
SEMEST	ER-IV	
BE-404	Computer Programming and Applications	(1+2)
BE-408	Differential Equations, Power Series, Laplace	
	Transform	
SEMESTER-V		
BE-511	Numerical Analysis	(3+0)





PROF. DR. S. GHIASUDDIN RASHDI,

PHD (UAF)

DEAN, FACULTY OF ANIMAL HUSBANDRY &

VETERINARY SCIENCES

EMAIL: DEANFAHVS@SAU.EDU.PK | PH: +92-22-

2765870 | EXT: 221







FACULTY OF ANIMAL HUSBANDRY & VETERINARY SCIENCES

Faculty of Animal Husbandry and Veterinary Sciences is amongst the five faculties of Sindh Agriculture University, Tandojam. This faculty is located towards the eastern end of the main campus of the University on Hyderabad - Mirpurkhas Highway about 15 km to the South of Hyderabad city. It was established in 1971. The faculty offers five-year Doctor of Veterinary Medicine (DVM), M.Phil and PhD degree programs under semester system through its 14 teaching departments in various disciplines related to animal and veterinary sciences.

The faculty offers innovative teaching programs and new academic developments in small and large animal surgery, medicine, reproduction, nutrition, and management. It also offers courses on domestic and wild animal diseases, fisheries and aquaculture and animal product technologies. Faculty has well- capacious classrooms with state of art teaching infrastructure, airconditioned library with latest arrivals of textbooks and research journals, three veterinary clinics (Teaching Hospitals) and livestock and poultry farms to provide hands-on experience.

MISSION STATEMENT

To provide efficient veterinary and para-veterinary manpower and expertise for promoting the welfare of the total socio-economic spectrum of communities of Pakistan in general and the province of Sindh by improving animal health, welfare, production and performance, veterinary public health, and conservation of animal genetic resources.

JOB OPPORTUNITIES

The graduates have job opportunities in Poultry and livestock sector, Livestock and Dairy Development Departments, Biological Product Units, Poultry & livestock Extension Department, Disease Diagnostic Laboratories.

Public and Private Universities, Animal Quarantine Department, Agriculture Development Bank of Pakistan (ADBP) and other Scheduled banks as Agriculture / Livestock / Poultry Credit Officer, and all other government jobs through competitive examinations, beside this self-employment opportunity as a professional veterinarian.

DEPARTMENT OF ANATOMY & HISTOLOGY

Department of Anatomy and Histology is a part of Faculty of Animal Husbandry & Veterinary Sciences it was established in 1987, provides scientific knowledge to the undergraduates and post-graduates related to Veterinary Anatomy, Histology and Embryology of domesticated animals and birds. The collaboration of the department with other disciplines, both in research and teaching gives an excellent opportunity for conducting advance research.

ACADEMIC STAFF			
lllahi Bux Kalhoro	PhD (QAU)	Professor & Chairman	
M. Ghiasuddin Shah	PhD (UAF)	Professor	
Jameel A. Gandahi	PhD (China)	Associate Professor	
Ghulam Murtaza Lochi MPhil Lecturer (On Contra			

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
ANAT-101	Veterinary Anatomy I	3 (1-2)
AN AT-102	Veterinary Anatomy II	3 (1-2)
ANAT-103	General Veterinary Histology	2 (1-1)
ANAT-104	Systemic Veterinary Histology and	3 (2-1)
	Embryology	

DEPARTMENT OF VETERINARY PHYSIOLOGY AND BIOCHEMISTRY

This department is situated at ground floor in Prof. M. Amin Bhatti Memorial Hall building at the center of faculty. This department offers courses in the field of Veterinary Physiology and Biochemistry to undergraduate and postgraduate students. The department has excellent facilities for teaching and research. The laboratories have state of the art equipment and computational facilities for hematological, biochemical, proteomic, and physiological studies within the department.

ACADEMIC STAFF			
Allah Bux Kachiwal	PhD (SAU)	Professor & Chairman	
Mool Chand Malhi	PhD (China)	Associate Professor	
Saeed Ahmed Soomro	PhD (SAU)	Associate Professor	
Jamila Soomro	PhD (China)	Associate Professor	

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
PHYS-101	Veterinary Physiology-I	3 (2-1)
PHYS-102	Veterinary Physiology-11	4 (3-1)
PHYS-103	Biochemistry	4 (3-1)

DEPARTMENT OF ANIMAL BREEDING AND GENETICS

The department focuses on teaching of breeding strategies for improvement of farm animal production, to enhance the availability of better-quality milk, meat, mutton, and wool. The department undertakes research on breeding problems under local conditions and suggests the future strategies for genetic improvement of existing germ plasm to ensure greater production to meet the requirements for ever increasing human population as well as for export.

ACADEMIC STAFF				
Hubdar Ali Kaleri	PhD (China)	Associate	Professor	&
		Chairman		

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
ABG-202	Animal Breeding and Genetics-I	2 (1-1)
ABG-301	Animal Breeding and Genetics-I I	3 (2-1)

DEPARTMENT OF ANIMAL NUTRITION

This is one of the important departments of Faculty of Animal Husbandry and Veterinary Sciences. It contributes to the DVM degree program by offering a number of courses with strong practical teachings and trainings. The department has well equipped laboratories with state-of-the-art equipment. It also provides access to the farming community and other stakeholders in the Feed Industry for quantitative and qualitative testing of various feedstuffs used in the preparation of least cost rations and extend assistance in the efficient utilization of conventional and non-conventional feed resources.

ACADEMIC STAFF		
Gulfam Ali Mughal	PhD (China)	Associate Professor &
		Chairman
Rani Abro	PhD (Sweden)	Associate Professor
Shoaib Ahmed Pirzado	Ph.D (China)	Assistant Professor

Farman Ali Siyal	PhD (China)	Lecture (Adhoc)
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COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
AN-201	Principles of Animal Nutrition	3 (2-1)
AN-202	Livestock Feed Resources & Forage Conservation	3 (2-1)
AN-301	Poultry Nutrition and Feed Technology	2 (1-1)

DEPARTMENT OF LIVESTOCK MANAGEMENT

The department of livestock management is one of the key departments in the Faculty of Animal Husbandry and Veterinary Sciences. The department maintains experimental herd of Kundhi buffalo, Red Sindhi, Tharparkar and crossbred cattle including a flock of sheep and goat. It delivers the teaching, research, and outreach functions. Postgraduate student's research focuses on sustainable livestock production systems, small- and large-scale dairy farming, livestock business management and farm profitability analysis.

ACADEMIC STAFF				
Huma Rizwana	PhD (SAU)	Associate Professor	&	
		Incharge Chairperson		
M. Naeem Rajput	PhD (China)	Assistant Professor		
Atique Ahmed Behan	PhD (Malaysia)	Lecturer (Adhoc)		

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
LM-101	Fundamentals of Livestock Production	3 (2-1)
LM-201	Livestock Extension Education	2 (2-0)
LM-302	Principles of Dairy Production	3 (2-1)
LM-401	Beef and Mutton production	2 (1-1)
LM-501	Animal Walfare and Ethics	2 (2-0)
LM-502	Livestock Economics and Business Management	2 (2-0)

DEPARTMENT OF POULTRY HUSBANDRY

The department of Poultry Husbandry offers basic and advanced courses of Poultry Science for the students of DVM, M.Phil and PhD. This department has well established laboratory, hatchery, Poultry Experimental Station including modern controlled environment shed which provide opportunities

to learn by practice for both undergraduate and post-graduate students. The practical teachings involve farm visits and laboratory demonstrations. It also caters to the needs of poultry industry of the area by offering periodical trainings, seminars, conference, and workshops. The Department has significantly contributed through its research to improve production, health and welfare of birds. Department also offers internship facilities in poultry farming. In addition, the department provides opportunities to rural masses particularly woman through short trainings courses in poultry farming.

ACADEMIC STAFF				
Nasir Rajput	PhD (China)	Associate Professor &		
		Chairman		
Imdad Hussain Leghari	PhD (China)	Associate Professor		
Azizullah Memon	PhD (SAU)	Assistant Professor		
Ahmad Ali Moryani	M.Sc. (Hons)	Assistant Professor		

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
POUL-102	Introduction to Poultry Production	1 (1-0)
POUL-401	Commercial Poultry Production	2 (1-1)
POUL-402	Breeder and Hatchery Management	3 (2-1)

DEPARTMENT OF VETERINARY MICROBIOLOGY

The department of Veterinary Microbiology is one of the most important departments of the Faculty of Animal Husbandry and Veterinary Sciences. Established in 1971. It aims to equip DVM graduates with the fundamental knowledge of bacteriology, virology, immunology, and other related aspects to broaden their understanding of disease mechanism and inherent body defenses against the diseases of veterinary importance.

The departmental academic staff and post graduate scholars conduct basic and applied research aimed at isolation, identification, characterization, bio typing and molecular biology of various pathogens. The Department of Veterinary Microbiology has developed its bilateral linkages, particularly on research side with different laboratories and institutes of the country where post-graduate scholars conduct their research for their degree program.

ACADEMIC STAFF			
Shahid Hussain Abro	PhD (Sweden)	Professor & Chairman	
Asghar Ali Kamboh	PhD (China)	Associate Professor	
Dildar H. Kalhoro	PhD (China)	Associate Professor	
Haseena Baloch	PhD (SAU)	Assistant Professor	

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
MICR-102	General Veterinary Microbiology	3 (2-1)
M ICR-201	Veterinary Immunology	2 (1-1)
M ICR-202	Veterinary Bacteriology and Mycology	3 (2-1)
MICR-301	Veterinary Virology	3 (2-1)
BIOL-201	Molecular Biology	2 (1-1)

DEPARTMENT OF VETERINARY PARASITOLOGY

Department of Veterinary Parasitology aims to achieve excellence in both teaching and research in the field of Parasitology. Our goal is to discover and implement novel strategies to control parasitic diseases that affect the health of millions of animals worldwide. We employ cutting-edge research in genomics, cell biology, immunology, epidemiology, entomology, and biochemistry to discover new ways to combat parasitic disease. Through our teaching and training programs, we aim to educate and mentor the next generation of Parasitologists.

The Department of Veterinary Parasitology is staffed by an outstanding team of scientists at faculty, striving to contribute to veterinary health by teaching and research. The Department has a distinguished history in parasitic disease research, particularly on tick-transmitted diseases. It has been a national leader in both research and training of veterinary parasitologists from the Pakistan as well as overseas. The Department contributes to awarding DVM, M.Phil. and PhD degrees. Besides, it also offers short trainings in diagnostics of parasitic diseases.

The Department of Parasitology has been renovated by developing a state- of the art Molecular Parasitology Laboratory equipped with most-modern equipment required for cutting edge research. The department in future to create an infra-structure which includes the creation of a computer lab for epidemiologic research, bioinformatics, and genomics laboratories.

ACADEMIC STAFF		
Abdullah G. Arijo	PhD (UK)	Professor & Chairman
M. Bachal Bhutto	PhD (SAU)	Professor
Javaid Ali Gadahi	PhD (China)	Associate Professor
Feroza Soomro	PhD (SAU)	Assistant Professor
Zubair Ahmed Laghari	PhD (China)	Lecture (Adhoc)

COURSES OFFERED			
CODE	TITLE OF COURSE C. HRS.		
PARA-201	General Veterinary Parasitology and	3 (2-1)	
	Protozoology		
PARA-202	Veterinary Helminthology	4 (3-1)	
PARA-301	Veterinary Entomology and Acarology 3 (2-1)		
AQUA-402	Fisheries and Aquaculture 1 (0-1		
ZOOL-501	Lab. and Zoo Animal Management	1 (0-1)	

DEPARTMENT OF VETERINARY PATHOLOGY

Pathology as a discipline primarily involves the understanding of disease processes at macro and micro level. It provides deeper insight into the functional and morphological changes in the tissues and fluids during disease. The product of a medical curriculum is a clinician whose main responsibility is the diagnosis and treatment of disease. Thus, Department of Veterinary Pathology offers courses which broaden the understanding of disease processes and help prepare student for proper grasp of clinical sciences. The department has well equipped general and clinical pathology laboratories for practical demonstration and training of students. The department has strong postgraduate program and offers higher degrees such as M Phil and PhD.

ACADEMIC STAFF		
Zaheer Ahmed Nizamani	PhD (France)	Professor & Chairman
Fahmida Parveen Samo	PhD (China)	Associate Professor
Mansoor Tarique Samo	PhD (China)	Assistant Professor
Shah Nawaz Kumbhar	PhD (China)	Assistant Professor

COURSES OFFERED		
COCODE	TITLE OF COURSE	C. HRS.
PATH-201	General Veterinary Pathology	3 (2-1)
PATH-202	Systemic Veterinary Pathology	3 (2-1)

PATH-302	Veterinary Clinical Pathology	1 (0-1)
PATH-501	Poultry Pathology	3 (2-1)
PATH/APT-501	Meat Inspection and Necropsy Practice	3 (2-1)

DEPARTMENT OF VETERINARY PHARMACOLOGY

Pharmacology is a scholarly discipline with distinct identity emphasizing in depth knowledge of the effects of chemical agents having therapeutic value or toxicity on biological systems. The department has a vital contribution to the DVM degree program through its courses designed to broaden the knowledge of therapeutic application of drugs and thus facilitating the graduate in the execution of disease prevention and control strategies. The Department has a strong post graduate program offering M.Phil and PhD degrees in Pharmacology.

ACADEMIC STAFF		
Shamsuddin Bughio	PhD (China)	Professor & Chairman
Rehana Buriro	PhD (China)	Professor

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
PHAR-201	General and Systemic Pharmacology	4 (3-1)
PHAR-202	Veterinary Chemotherapy & Toxicology	4 (3-1)

DEPARTMENT OF ANIMAL PRODUCTS TECHNOLOGY

The department exists with the contemporary name "Animal Products Technology" since 2010; previously it was named as "Dairy Technology". Animal Products Technology consists of Milk Processing Lab, Dairy / Meat Chemistry Lab, Dairy / Meat Microbiology Lab, and a modern Slaughterhouse (Demonstration Unit). The prime focus of research is quality and safety of milk, meat, and their products. The resulting outcomes of the research are applied to educate students by adding results in their syllabus, aware industry through scientific literature and to aware common people through organizing seminars. In addition to that the trainees may get start their own dairy business to improve the livelihood of their families which adds in poverty alleviation. The department offers various courses at undergraduate and post-graduate levels meeting the requirement of Higher Education Commission and Pakistan Veterinary Medical Council.

ACADEMIC STAFF			
Sayed Atta H. Shah	PhD	Associate Professor	&
	(Malaysia)	Chairman	
Gul Bahar Khaskheli PhD (China) Assistant Professor		Assistant Professor	
Muneer Ahmed Jamali	PhD (China)	Lecturer (Adhoc)	
Ghulam Shabir Barham	PhD (SAU)	Lecturer (on Contract)	

COURSES OFFI	ERED		
CODE	TITLE OF COURSE	C. HRS.	
APT-202	Dairy Technology		
EPID-302	Zoonoses and Food Safity	3 (2-1)	
PATH/APT-501	Meat Inspection and Necropsy Practice	3 (2-1)	

DEPARTMENT OF ANIMAL REPRODUCTION

Department of Animal Reproduction was established in the year 1984 under the project "Establishment of Department of Animal Reproduction" at Faculty of Animal Husbandry & Veterinary Sciences, the project was institutionalized by the University in the year 1988. Our fully accredited department emphasize on teaching, research, and clinical resource management. Our academic vision focuses on preparing our graduate and postgraduate students as specialists in obstetrics, gynecology, reproductive endocrinology, infertility, artificial insemination, pregnancy diagnosis & reproductive biotechnology. The department provides a potential place for internship program for DVM students. Since the established, it has remained a constant source of short trainings and refresher courses to the field veterinarians and para-vet staff.

ACADEMIC STAF		
Pershotam Khatri	PhD (Germany)	Professor & Chairman
Akeel Ahmed Memon	PhD (Malaysia)	Professor
Hamzo Khan Kumbher	PhD (SAU)	Associate Professor
Nazar Ali Korejo	PhD (China)	Assistant Professor
Asmatullah Kaka	PhD (Malaysia)	Assistant Professor

COURSES OFFERED		
CODE	CODE TITLE OF COURSE C. HRS.	
A.REP-301	Veterinary Repreductive Physiology	3 (2-1)
A.REP-302	Reproductive Biotechnology	2 (2-0)

A.REP-304	Clinic-I	1 (0-1)
A.REP-401	Obstetrics and Genital Diseases	3 (2-1)
A.REP-403	Clinic-11	1 (0-1)
A.REP-404	Clinic-Ill	2 (0-2)
A.REP-501	Clinic-IV	2 (0-2)

DEPARTMENT OF SURGERY AND OBSTETRICS

This clinical department focuses on teaching and research in the areas of veterinary surgery, anesthesiology, and diagnostic imaging to produce well trained veterinary graduates for improving health and production of farm animals as well as welfare of pet and wild animals. The department is strong in continuum of education and training programs which are organized regularly with collaboration of international and national organizations for the benefit of students, veterinarians, researchers, teachers, and farmers. It has highly qualified staff, well equipped large and small animal surgery hall, undergraduate and post graduate laboratories, a <u>library</u> and teaching hospital with indoor facilities for small and large animals.

ACADEMIC STAFF			
	Ahmed Nawaz Tunio	PhD (Malaysia)	Professor & Chairman

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
SURG-302	Diagnostic Imaging	2 (1-1)
SURG-304	Surgery Clinic I	1 (0-1)
SURG-401	Anaesthesiology and Intensive Care	1 (0-1)
SURG-403	Surgery Clinic II	1 (0-1)
SURG-402	Small Animal Surgery	4 (3-1)
SURG-404	Surgery Cliic III	2 (0-2)
SURG-501	Large Aimal Surgery and Shoeing	3 (2-1)
SURG-503	Surgery Clinic IV	2 (0-2)

DEPARTMENT OF VETERINARY MEDICINE

The department of Veterinary Medicine is one of the basic departments of Faculty of Animal Husbandry and Veterinary Sciences. The main emphasis of the department is to produce highly motivated Veterinary professionals through the best clinical practice and educational program. Therefore, in

practical life 90 percent of professional recognition of a veterinarian requires knowledge and skills related to veterinary Medicine. The department is offering most important undergraduate and post graduate courses of veterinary field and providing best possible veterinary care / treatment facilities to the nearby farmers at the departmental clinic. Department of Veterinary Medicine provides road map to a successful career in Veterinary practice, Bio-medical industry, public service or academic teachers and researchers of the future.

ACADEMIC STAFF		
Amjad Hussain Mirani	PhD (SAU)	Professor & Chairman
Abdul Latif Bhutto	PhD (UK)	Professor
Jam Kashif Zaman Sahito	PhD (China)	Associate Professor
Riaz Ahmed Leghari	PhD (China)	Associate Professor

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
MED-301	General and Systemic Veterinary Medicine	3 (2-1)
MED-302	Veterinary Preventive Medicine-I	3 (3-0)
MED-304	Medicine Clinic-I	1 (0-1)
MED-401	Veterinary Preventive Medicine-I I	3 (3-0)
MED-403	Medicine Clinic-11	1 (0-1)
EPID-402	Veterinary Epidemiology and Public Health	3 (2-1)
MED-404	Medicine Clinic-III	2 (0-2)
MED-501	Medicine Clinic-IV	2 (0-2)





Prof. Dr. ALLAH WADHAYO GANDAHI, PRINCIPAL, SHAHEED Z. A. BHUTTO AGRICULTURAL COLLEGE, DOKRI Email: PRINCIPALSZABAC@GMAIL.COM | Ph: +92-74-4043583







SHAHEED ZULFIQAR ALI BHUTTO AGRICULTURAL COLLEGE, DOKRI

Shaheed Z.A. Bhutto Agricultural College (SZABAC), Dokri is a constituent college of Sindh Agriculture University Tandojam. The college is in Taluka Bakrani about 17 kilometers away from Larkana on Bakrani-Dokri Road via Mehrabpur. The city of Dokri is about 07 kilometers in the south and the ruins of famous historical city Moen- Jo- Daro are about 10 kilometers in South-West.

This college initially started functioning in the buildings of Rice Research Institute Dokri during 1991 and then shifted to new campus in 1998. The college offers B.Sc (Agri.) Hons. degree program in various disciplines of agriculture (Crop Production and Crop Protection) including Agronomy, Soil Science, Horticulture, Plant Breeding and Genetics, Entomology, Plant Pathology and Plant Protection to the students coming from the districts Larkana, Kamber-Shahdadkot, Shikarpur, Jaccobabad, Kashmore / Kandhkot, Sukkur, Khairpur Mir's, Naushahro Feroze and Dadu district. The graduates from this college are serving in various fields related to agriculture in public and private sectors throughout Pakistan.

FACILITIES

CLASSROOMS, LABORATORIES, COMPUTER LAB AND CENTRAL LIBRARY

Enough classrooms and laboratories are available for students in each department for theory and practical classes. One well equipped central laboratory is available in the main academic block for student's research and practical classes.

A computer lab has been established for all students at the Department of Agronomy with 26 desktop computers,

A well-established central library is available for the students having about 6600 books including 500 journals/periodical. English/Urdu/Sindhi Daily newspapers are regularly made available for students and staff.

ADVISORY SERVICES

The main objective of this wing is to maintain law and order situation over the campus and to provide encouraging environments to the students for their studies besides provision of facilities and opportunities to take part in Cocurricular and Extra-curricular activities through Art and Literary competition which includes Debates, Quiz, Qirat and Naat competition etc. The students are also encouraged to initiate a positive and constructive activities that help them to improve their behavior and sharpens their intellect.

ACCOMMODATION

There is a 260 male, student's hostel is available at the campus. The hostel is equipped with ceiling fans, electric water pumps, Sui gas geysers, TV room, study room. Student mess is being run under the supervision of the Hostel Administration. To provide economical, hygienic and nutritious food to the students, the hostel has been provided with dining hall and canteen. The standard of food in the hostel mess is regularly checked by hostel administration.

Electric Water Coolers have been installed at various points in the hostel for provision of filtered chilled water. Sui Gas Heaters / Lamps have been installed in the T.V. rooms, Dining Halls and Masjid of the hostel to keep the internal environment warm during the winter season. A system of hot water supply (GEYSERS) has been provided in hostel during the winter season in the washrooms and kitchen.

TRANSPORT

Free bus transportation facility is available for the students. Two college buses regularly ply between the following routes:

- 1. SZABAC to Naseerabad via Badah and Dokri.
- 2. SZABAC to Larkana via Dadu Canal Bridge Bakrani.
- Costar service for teachers SZABAC to Larkana.

SPORTS

- The college has vast and well-planned playgrounds and indoor games facility.
- 2. The boys" hostel has a well-equipped exercise room.

HEALTH FACILITIES

• Medical facilities are available at the campus for 24 hours.

STAND-BY GENERATOR

 Stand-by-generator is available at the campus to fulfill need of electricity when-ever required.

ENTERTAINMENT

 TV with Satellite dish facility is available in TV lounge of boys' hostel.

GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
SS-301	Introduction to Soil Science-I	3 (2+1)
AGR-301	Basic Agriculture	3 (2+1)
AEE-301	Introduction to Argil. Education Extension	3 (2+1)
ENG-301	English Text, Grammar and Composition	3 (3+0)
ENT-301	Introductory Entomology	3 (2+1)
IS/ETH-301	Islamic studies / Ethics (Optional for Non- Muslim Students)	2 (2+0)
MATH / BIOL-301	Functional Mathematics-I / Introduction to Biology	(2+0) / (1+1)
SEMESTER-II		

AGR302	Field Crop Production-I	3 (2+1)
AGEC-302	Introduction to Economics & Agricultural Economics	3 (3+0)
PBG-302	Introductory Genetics	3 (2+1)
HORT-302	Introductory Horticulture	3 (2+1)
PP-302	Introduction to Plant Pathogens	3 (2+1)
PS-302	Pakistan Studies	2 (2+0)
MATH-302/ BIOL-302	Math-II / Introduction to Zoology	3 (3+0)
BT-302	Introductory Biotechnology	2 (1+1)
SEMESTER-III	I	
PBG-401	Introductory Plant Breeding	3 (2+1)
PPT-401	Introduction to Pest Management	3 (2+1
HORT-401	Horticultural Crop Production	3 (2+1)
BCH-401	Introduction to Biochemistry	3 (2+1)
FST-401	Introductory Food Science & Technology	3 (2+1)
AHV-401	Introductory Animal Husbandry	2 (1+1)
SEMESTER-IV		
AGR-402	Field Crop Production-II	3 (2+1)
ENT-402	Applied Entomology	3 (2+1)
AEE-402	Agric. Extension & Teaching Methods	3 (2+1)
ITC-402	Computer Application	2 (1+1)
FPM-402	Farm Mechanization	2 (1+1)
SS-402	General Soil Science	3 (2+1)
CP-402	Introductory Crop Physiology	2 (1+1)

DEPARTMENT OF AGRONOMY

The Department of Agronomy is offering B. Sc. (Agri.) Hons. Degree program. The purpose of this department is to educate and train the students of Agronomy by teaching various courses of Agronomy, conducting high caliber research and development and adoption of innovative technologies.

ACADEMIC STAFF		
Javed Shabir Dar	PhD (UAF)	Assistant Professor & Incharge Chairman
Zulfiqar Ali Abbasi	PhD (SAU)	Assistant Professor (Study leave)
Musrat Begum Abro	M.Sc. (Agri) Hons	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTE	R-V	
AGR-501	Arid & Rain-fed Agriculture	3 (2+1)
AGR-503	Agro-Technology of Major Crops	3 (2+1)
AGR-505	Field Crop Physiology	3 (2+1)
AGR-507	Introduction to Crop Modelling	3 (2+1)
AGR-509	Seed Production Technology	3 (2+1)
STAT-511	Elementary Statistics	3 (2+1)
SEMESTE	R-VI	
AGR-502	Farm Record Maintenance	3 (2+1)
AGR-504	Principles of Weed Science	3 (2+1)
AGR-506	Plant Nutrients and Growth Regulators	3 (2+1)
AGR-508	Medicinal and Special Crops	3 (2+1)
CP-510	General Biochemistry	3 (2+1)

SEMESTER-VII			
AGR-601	Research and Scientific Writing	3 (2+1)	
AGR-603	Irrigation Agronomy	3 (2+1)	
AGR-605	Forage and Fodder Production	3 (2+1)	
AGR-607	Production Technology of Condiments & Spices	3 (2+1)	
SUPT-611	Environment and Crop Production	3 (2+1)	
SEMESTE	SEMESTER-VIII		
AGR-602	Agro Ecology	2 (2+0)	
AGR-604	Conservation Agronomy	3 (2+1)	
AGR-606	Organic Farming	3 (2+1)	
AGR-610	Internship and Report Writing	4 (0+4)	

DEPARTMENT OF SOIL SCIENCES

The department of Soil Science has been offering B. Sc. (Agri.) Hons., committed to produce young soil scientists equipped with modern scientific and research oriented. Soil science graduates are working in various organizations including National Institute of Agriculture Tandojam, Agriculture Education Extension Govt: of Sindh, Agriculture Research Govt, of Sindh, Fauii Fertilizer Company, Fatima fertilizer Company, etc. Objectives of this department is to teach students about current concepts in soil and environmental resources that would enhance their competence and provide them with knowledge in changing trends in soil science globally. Produce top quality graduates who would excel in their fields of endeavor and impact positively on their communities. Conduct relevant basic and applied research to address problems, generally in Agriculture and specifically in soil and the environment to enhance the development of the nation.

ACADEMIC STAFF		
Allah Wadhayo	PhD (SAU),	Professor & Principal
Gandahi	POSTDOC (Malaysia)	

Abdul Hameed Memon	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman
Waqar A. <u>Pahore</u>	M.Sc. (Agri.) Hons.	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTE	R-V		
SS-501	Physical Properties of Soil	3 (2+1)	
SS-503	Chemical Properties of Soil	3 (2+1)	
SS-505	Soil Fertility and Fertilizer Use	3 (2+1)	
SS-507	Instrumentation & Laboratory Techniques	3 (2+1)	
SS-509	Soil Genesis & Morphology	3 (2+1)	
STAT-511	Elementary Statistics	3 (2+1)	
SEMESTE	R-VI		
SS-502	Salt-affected Soils and Water Quality	3 (2+1)	
SS-504	Soil Survey and Land Evaluation	3 (2+1)	
SS-506	Soil and Water Conservation	3 (2+1)	
SS-508	Soil-Water-Plant Relationship	3 (2+1)	
CP-510	General Biochemistry	3 (2+1)	
SEMESTE	R-VII		
SS-601	Soil Microbiology	3 (2+1)	
SS-603	Environmental Pollution and Management	3 (2+1)	
SS-605	Trace Elements in Agriculture	3 (2+1)	
SS-607	Carbon Sequestration in Soil	3 (2+1)	
SUPT-611	Integrated Plant Nutrition Management	3 (2+1)	
SEMESTER-VIII			

SS-602	Research Project and Scientific Writing	2 (2+0)
SS-604	Land Degradation and Management	3 (2+1)
SS-606	Municipal and Agro Waste Management	3 (2+1)
SS-610	Internship and Report Writing	4 (0+4)

DEPARTMENT OF HORTICULTURE

Horticulture is one of the most important disciplines of agriculture. The production and returns from horticultural crops are high as compared to other crops. This department is providing advisory services to the fruit, vegetable, and flower growers to solve their problems. The vision is to become a well reputed Centre of study and research in the field of horticulture.

Our intention is to focus on quality education, conduct research on various aspects of fruit, vegetables, flower, and ornamental plants. Perform short term trainings on nursery production and popularize high yielding varieties with export potential.

ACADEMIC STAFF			
Ghulam Nabi Sohuo	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman	
Saeed Ahmed Buriro	M.Sc. (Agri) Hons	Assistant Professor	

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-V		
HORT-501	Principles of Fruit Production	3 (2+1)
HORT-503	Principles of Vegetable Production	3 (2+1)
HORT-505	Principles of Ornamental Crop Production	3 (2+1)
HORT-507	Propagation & Nursery Management	3 (2+1)
HORT-509	In vitro Propagation	3 (2+1)

STAT -511	Elementary Statistics	3 (2+1)		
SEMESTER-VI				
HORT-502	Temperate Fruits	3 (2+1)		
HORT-504	Winter Vegetables	3 (2+1)		
HORT-506	Landscape Horticulture	3 (2+1)		
HORT-508	Post-Harvest Horticulture	3 (2+1)		
CP-510	General Biochemistry	3 (2+1)		
SEMESTER-VII				
HORT-601	Research Methods in Horticulture	3 (2+1)		
HORT-603	Tropical and Sub-Tropical Fruits	3 (2+1)		
HORT-605	Commercial Flower Production	3 (2+1)		
HORT-607	Summer Vegetables	3 (2+1)		
SUPT-611	Solaneous Crops	3 (2+1)		
SEMESTER-VIII				
HORT-602	Business Management in Horticulture	2 (2+0)		
HORT-604	Protected Horticulture	3 (2+1)		
HORT-606	Vegetable and Flower Seed Production	3 (2+1)		
HORT-610	Internship and Report Writing	4 (0+4)		

DEPARTMENT OF PLANT BREEDING & GENETICS

Plant Breeding & Genetics is concerned with the evolution of superior varieties of crops. Its main stay is the genetic adjustment of crop plants to social, economic, and technological aspects of the environment. Plant breeding depends on the concepts of genetics and other related sciences like taxonomy, cytogenetic, biotechnology, genetic engineering, and their implementation for the increased production of food, fiber and other industrial crops.

The mission of the Plant Breeding and Genetics is to produce high quality market-oriented graduates who fulfill the economics needs of the country by exploiting all the available genetic resources for crop improvement.

ACADEMIC STAFF				
Nazeer Ahmed <u>Panhwar</u>	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman		
Abdul <u>Razaque</u> Mangi	M.Sc. (Agri) Hons	Assistant Professor		

COURSES OFFERED FOR B.Sc. (Agri.) Hons.				
CODE	TITLE OF COURSE	C. HRS.		
SEMESTER-V				
PBG-501	Principles of Genetics	3 (2+1)		
PBG-503	Breeding of Field Crops	3 (2+1)		
PBG-505	Cytogenetics	3 (2+1)		
PBG-507	Fundamentals of Plant Biometry	3 (2+1)		
PBG-509	Breeding of Vegetable Crops	3 (2+1)		
STAT-511	Elementary Statistics	3 (2+1)		
SEMESTER-VI				
PBG-502	Breeding of Maize, Millet and Sorghum	3 (2+1)		
PBG-504	Breeding of Oilseed and Tobacco Crops	3 (2+1)		
PBG-506	Modern Techniques in Plant Breeding	3 (2+1)		
PBG-508	Molecular Genetics	(2+1)		
CP-510	General Biochemistry	(2+1)		
SEMESTER-VII				
PBG-601	Breeding of Cereal Crops	(2+1)		
PBG-603	Breeding of Pulse Crops	(2+1)		
PBG-605	Breeding of Fodder and Forage Crops	(2+1)		

PBG-607	Experimentation in Plant Breeding (2+1)		
SUPT-611	Principles of Plant Breeding	(2+1)	
SEMESTE	SEMESTER-VIII		
PBG-602	Breeding of Sugar Crops	(1+1)	
PBG-604	Breeding of Fiber Crops	(2+1)	
PBG-606	Biodiversity and Plant Genetic Resources (2+1)		
PBG-610	Internship and Report Writing (0+4)		

DEPARTMENT OF ENTOMOLOGY

This department is fully equipped with classrooms, laboratories, insect museum and experimental field. The mission of the department is to produce high class graduates who could understand the science of insects and manage them in accordance to the welfare of human beings.

The department conducts fundamental and applied research on insects, educate students to implement integrated and effective systems for insect management and enhance modern education and public awareness of human insect interaction. Major objective is to provide modern scientific knowledge of entomology and related sciences to students and update farming community with modern information / knowledge.

ACADEMIC STAFF			
Muhammad Haroon Hullio	PhD (SAU)	Assistant Professor & Incharge Chairman	
Shah Nawaz Khuhro	PhD (SAU)	Associate Professor	
Ghulam Sarwar Solangi	PhD (SAU)	Associate Professor	
Abdul Hanan Buriro	PhD (NZ)	Associate Professor	
Shahjahan Rajput	PhD (China)	Assistant Professor	
Shabana Naz <u>Mazari</u>	M.Sc. (Agri) Hons	Lecturer	
Irshad Ali <u>Junejo</u>	M.Sc. (Agri) Hons	Lecturer (Adhoc)	

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	HRS.
SEMESTE	R-V	
ENT-501	Insect Morphology	(2+1)
ENT-503	Principles of Insect Taxonomy	(2+1)
ENT-505	Insect Ecology	(2+1)
ENT-507	Integrated Pest Management	(2+1)
ENT-509	Insect Behavior	(2+1)
STAT-511	Elementary Statistics	(2+1)
SEMESTE	R-VI	
ENT-502	Insect Physiology	(2+1)
ENT-504	Range and Forest Entomology	(2+1)
ENT-506	Insect Classification and Biodiversity (2+1)	
ENT-508	Insect Pests of Household, Men & Animals	(2+1)
CP-510	General Biochemistry	(2+1)
SEMESTE	R-VII	
ENT-601	Stored Product Pests and Their Management	(2+1)
ENT-603	Plant Resistance to Insect Pests	(2+1)
ENT-605	Insecticides and Their Application	(2+1)
ENT-607	Agriculture and Environmental Pollution	(2+1)
ENT-611	Insecticides and Public Health (For Non-major)	(2+1)
SEMESTER-VIII		
ENT-602	Biological Control of Insect Pests	(2+1)
ENT-604	Acarology	(2+1)
ENT-606	Scientific Writing and Presentation	(2+0)
ENT-610	Internship / Research Project	(0+4)

DEPARTMENT OF PLANT PATHOLOGY

Aim of the department is to carry out research on different aspects for identification and integrated management of plant diseases. Department is providing modern scientific knowledge to students enrolled in graduate program, provide guidelines to farming community for proper treatment of

diseased plant and workout know how about biological and other nonchemical control measures of plant diseases.

ACADEMIC STAFF		
Sultan Ahmed Matilo	PhD (SAU)	Associate Professor & Chairman
Ahmed Panhwar	PhD (SAU)	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER	2-V	
PP-501	Introduction to Plant Viruses	3 (2+1)
PP-503	Introduction to Plant Prokaryotes	3 (2+1)
PP-505	Introductory Mycology	3 (2+1)
PP-507	Introduction to Plant Parasitic Nematodes	3 (2+1)
PP-509	Seed and Post-Harvest Pathology	3 (2+1)
STAT- 511	Elementary Statistics	3 (2+1)
SEMESTER	2-VI	
PP-502	Diseases of Field Crops	3 (2+1)
PP-504	Diseases of Vegetables Crops	3 (2+1)
PP-506	Plant Resistance to Diseases	3 (2+1)
PP-508	Soil Borne Plant Pathogens 3 (2+1	
CP-510	General Biochemistry	3 (2+1)
SEMESTER	-VII	
PP-601	Diseases of Fruits and Ornamentals	3 (2+1)
PP-603	Beneficial Microorganisms for Sustainable Agriculture	3 (2+1)
PP-605	Plant Disease Epidemiology	3 (2+1)
PP-607	Introductory Molecular Plant Pathology	3 (2+1)
PP-611	Beneficial Microorganisms for Sustainable Agriculture (For Non-Major)	3 (2+1)

SEMESTER-VIII		
PP-602 Pesticides Their Action and Application 3 (2+1)		3 (2+1)
PP-604	Methods and Techniques in Plant Pathology 3 (2+1)	
PP-606	PP-606 Abiotic Diseases of Plants 2 (2+0)	
PP-610	Internship / Research Project	4 (0+4)

DEPARTMENT OF PLANT PROTECTION

It is one of the important disciplines of agriculture and combines various aspects of Entomology, Plant Pathology and weed sciences. The major intentions of the department are to discover new techniques and demonstrate new principal of Crop Protection and improve the crop management so that local agriculture become socially viable, profitable for the farmers, and competitive on all markets.

Identifying agricultural useful natural enemies (insects, micro-organisms) or biological control of pests to conserve the environment, <u>soil</u> and health hazards. In addition to practical training in plant protection, each student is expected to develop a working knowledge of ecology and expertise in the production of crop or group of crops.

ACADEMIC STAFF		
Nusrat Hussain Abbasi	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman
Tufail Ahmed Wagan	PhD (China)	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.			
CODE TITLE OF COURSE C		C. HRS.	
SEMESTE	SEMESTER-V		
PPT-501	Introduction to Pest Management	3 (2+1)	
PPT-503	Pests of Field Crops	3 (2+1)	
PPT-505	Plant Nematology	3 (2+1)	
PPT-507	Pest Ecology	3 (2+1)	
PPT-509	Introductory Acarology	3 (2+1)	

STAT- 511	Elementary Statistics	3 (2+1)
SEMESTER	I-VI	
PPT-502	Post-Harvest Pest Management	3 (2+1)
PPT-504	Pests of Fruits, Vegetables & Ornamentals	3 (2+1)
PPT-506	Principles of Plant Disease Management	3 (2+1)
PPT-508	Pesticides & their Application Techniques	3 (2+1)
CP-510	General Biochemistry	3 (2+1)
SEMESTER	R-VII	
PPT-601	Pest Scouting and Forecasting	3 (2+1)
PPT-603	Biological Control	3 (2+1)
PPT-605	Vertebrate Pest and their Management	3 (2+1)
PPT-607	Pollinators and Plant Protection	3 (2+1)
PPT-611	Field IPM (for Non-Major)	3 (2+1)
SEMESTER-VII		
PPT-602	Urban Pest Management	3 (2+1)
PPT-604	Range and Forest Pest Management	3 (2+1)
PPT-606	Plant Biosecurity and Biosafety	2 (2+0)
PPT-610	Internship / Research Project	4 (0+4)

Department of Social Sciences is offering compulsory and supporting course to others major disciplines, through following sections:

- 1. English.
- 2. Islamic & Pakistan Studies.
- 3. Statistics.
- 4. Agricultural Economic.
- 5. Agricultural Education Extension
- 6. Plant Physiology & Biochemistry
- 7. Farm Power and Machinery
- 8. Plant Biotechnology
- 9. Food Science and Technology

ACADEMIC STAFF			
Faiz Muhammad Shaikh	PhD (SU)	Professor & Incharge Chairman	
Nisar Ahmed Pahore	M.Sc. (Agri) Hons	Assistant Professor	
Ghulam Qadir Chandio	M.Sc. (Statics)	Assistant Professor	
Muhammad Ali Sangi	MA (QAU)	Assistant Professor	





PROF. DR. MUHAMMAD IBRAHIM KEERIO,
PRINCIPAL, KHAIRPUR COLLEGE OF
AGRICULTURAL ENGINEERING & TECHNOLOGY,
KHAIRPUR MIRS
Email: MIKEERIO@GMAIL.COM









KHAIRPUR COLLEGE OF AGRICULTURAL ENGINEERING & TECHNOLOGY

Agriculture is the world's largest and most important industry feeding and clothing an ever-growing population of the world. However, nowadays agriculture is worldwide adopting new technologies such as micro irrigation methods, Global Positioning System (GPS) supported by water regulation and farm mechanization, laser leveling, Geographic Information System (GIS) and Remote Sensing (satellite technology) for estimation of soil salinity, availability of water in channels, canals, rivers, dams etc., food intensity, crop water requirements, pest management, cropped area, crop health and yield in order to keep pace with growing demand for food and fiber. Thus, latest technologies for sustainable agriculture can be transferred, operated by an Agricultural Engineer.

Agricultural Engineering has tremendous potential to improve the quality and lifestyle of common people by increasing viability and profitability of production, postproduction, and other rural and urban enterprises and by enhancing labor productivity, reducing drudgery, improving welfare, and designing appropriate health and safety intervention. Agricultural Engineering can also contribute to increase output by reducing pre and postproduction losses through enhanced harvesting, handling, and processing. Soil and water resources can be managed by better engineering applications.

Looking into the needs of the people, an Agricultural Engineering College can serve people of upper Sindh and the entire Sindh in general. The college imparts the Agricultural Engineering and Technological based knowledge to the rural masses of Sindh and produces high quality trained manpower for successful implementation of agro based developmental programs.

The Khairpur College of Agricultural Engineering and Technology is one of the constituent colleges of the Sindh Agriculture University Tandojam. This is the first college of its kind to cater the needs of Sindh in Agricultural Engineering aspects. It is established on 23 acres abandoned land along old National Highway near IBA Community College, Khairpur Mir's.

The college of Agricultural Engineering is established with an aim to take leadership role in the promotion of technological challenges and their management for sustainable agriculture development in the province of Sindh and the country at large by imparting high quality education, productive research, and outreach activities. The college will work initially for the refinement of vision and skills of graduates in the field of agricultural engineering.

LOCATION

The college is located at Longitude 68.771° E and Latitude 27.565° N in Khairpur Mir's City of Sindh province on the left bank of Rohri Canal near Institute of Business Administration (IBA) Community College, Khairpur along Pakistan National Highway. Khairpur Railway Station is at about 6 km, while Sukkur airport is 25 km away from college.

MISSION

The mission of the college is to produce young, energetic, generous, highly motivated, and talented professional agricultural engineers, who uphold and advance for the integrity, honor, dignity & development of their profession.

VISION

The focus of the college would be to develop students' knowledge and skills in agricultural engineering by giving professional and academic training in the broad areas of Soil and Water Resources Engineering, Mechanization, Farm Machinery, Postharvest Technology and Food Processing Engineering and Agribusiness Management

OBJECTIVES

- Produce quality engineering graduates needed for Agriculture and Agro-industrial development of country. Advance the frontier of knowledge in engineering and generate technologies in support of the Agri-enterprise development thrust of the country.
- Promote the utilization of useful technologies by proper clientele effectively practice agricultural engineering in the areas of farm

- power and machine systems, soil and water and natural resources management.
- Demonstrate proficiency in fundamental engineering skills and technical knowledge as well as professional and personal skills appropriate for their profession.
- Prepare what to this for future challenges and opportunities in agricultural engineering through the application and discovery of knowledge.
- Organize short courses / trainings on design of Agricultural Machinery, Testing of Agricultural Machinery, Manufacturing Technology of Agricultural Machinery, Tractor Operation, Maintenance of agriculture implements; conduct on-job training programs and refresher courses on land and water management strategies, Tube well operation and maintenance, Computer Aided Designs, focus on the low-cost farm housing, food and fruit processing, utilization, marketing, and postharvest technology.
- Offer consultancy services to national and international organizations on projects of national importance.

ACADEMIC STAFF			
M. Ibrahim Keerio	PhD (UK)	Professor & Principal	
Hafeez Rehman Mangio	PhD (SAU)	Associate Professor & Chairman	
Ali Raza Shah	PhD (SAU)	Associate Professor & Chairman	
Irshad Ali Mari	PhD (China)	Assistant Professor	
Waqar Ahmed Bhayo	M.E. (Agri.)	Assistant Professor	
Saeed Ahmed Dahri	M.E. (Agri.)	Assistant Professor	
Abid Ali Abro	M.E. (Agri.)	Assistant Professor	
Imtiaz Ali Dahri	M.E. (Agri.)	Assistant Professor	
Meharunisa Rais	M.Sc. (Agri.) Hons.	Lecturer (study leave)	

Liaquat Ali Lund	B.S. (US)	Lecturer (study leave)
Sher Ali Shaikh	M.E. (Agri.)	Lecturer (study leave)
Mazhar Hussain <u>Tunio</u>	M.E. (Agri.)	Lecturer (study leave)
Sheeraz Aleem Brohi	M.E. (Agri.)	Lecturer
Munawar Ali Seelro	M.Sc. (SALU)	Lecturer
Abid Ali Randhawa	M.Sc. (Agri.) Hons.	Lab. Lecturer (study leave)
Zaheer Ahmed Aqualani	M.E. (Agri.)	Lab. Lecturer
Ajeet Kumar	M.E. (Agri.)	Lab. Lecturer
Azhar Mustafa Soomro	M.E. (Env.) MUET	Lab. Lecturer
Paras Pathan	M.A (English), SALU	Teaching Assistant

COURSES OFFERED FOR B.E (Agri.)			
CODE	TITLE OF COURSE	C. HRS.	
SEMESTER-I			
AG-301	Introduction to Applied Agriculture	3 (2+1)	
BE-303	Linear Algebra and Calculus	3 (3+0)	
EE-305	Industrial Chemistry	3 (2+1)	
PS-307	Pakistan Studies	2 (2+0)	
FPM-309	Metallurgy & Workshop Practices	3 (2+1)	
LWM-311	Soil Science	2 (1+1)	
BE-313	Fundamentals of Computers	1 (0+1)	
SEMESTER-II			
BE-302	Applied Physics	3 (2+1)	
EE-304	Environmental Engineering	3 (2+1)	

FPM-306	Engineering Drawing & Graphics	3 (2+1)
FS-308	Engineering Materials	2 (2+0)
ID-310	Engineering Hydrology	3 (2+1)
LWM-312	Surveying and leveling	3 (1+2)
SEMESTER-III	I	
BE-401	Engineering Mechanics	3 (2+1)
LWM-403	Farm Irrigation Systems	3 (2+1)
EE-405	Water Quality and Wastewater Engineering	3 (2+1)
FPM-407	Instrumentation and Measurements	3 (2+1)
FS-409	Basic Rural Electrification	3 (2+1)
ID-411	Soil Mechanics	3 (2 + 1)
SEMESTER-VI		
ID-402	Fluid Mechanics	3 (2+1)
BE-404	Computer Programming and Applications	3 (1+2)
EE-406	Energy Resources and Management	3 (2+1)
BE-408	Differential Equations, Power Series, Laplace Transform	3 (3+0)
FPM-410	IC Engines and Tractors	3 (2+1)
FS-412	Strength of Materials	2 (2+0)
SEMESTER-V		
LWM-501	Soil Physics	3 (2+1)
FPM-503	Farm Machinery	3 (2+1)
FS-505	Theory of Structures	2 (2+0)
ID-507	Hydraulic Machinery and Pipe flow	3 (2+1)
IS-509	Islamic Studies or Ethics	2 (2+0)
BE-511	Numerical Analysis	3 (3+0)

EN -513	Technical Writing	2 (2+0)
SEMESTER-VI		
FS -502	Agricultural Process Engineering	3 (2+1)
EE-504	Environmental Management Systems for Industry	3 (2+1)
ID-506	Pumps and Tube Wells	3 (2+1)
LWM-508	Saline Sodic and Waterlogged Soils	3 (2+1)
EC-510	Engineering Economics & Management	2 (2+0)
FPM-512	Machine Design	3 (2+1)
SEMESTER- VII		
EE- 601	Solid Waste Management	3 (2+1)
FS-603	Post-Harvest Engineering	3 (2+1)
ID-605	Irrigation Engineering	3 (2+1)
LWM -607	Soil and Water Conservation Engineering	3 (2+1)
FPM-609	Farm and Earth Moving Machinery	3 (2+1)
EN -611	Communication Skills & Presentation Skills	2 (2+0)
SEMESTER-VI	ш	
STAT- 602	Applied Engineering Statistics	3 (2+1)
ID-604	Drainage Engineering	3 (2+1)
LWM-606	Water Management Engineering	3 (2+1)
FS - 608	Farm Structures	3 (2+1)
AE-612	Project Report & Seminar	3 (1+2)

DEPARTMENT OF SOIL AND WATER RESOURCES ENGINEERING

The relationship between crop, soil, water and climate is quite complex phenomena and the knowledge of this relationship enables in the enhancement of the crop yield and plays key role in the food security of the country. The reliable water supplies for irrigated agriculture are instrumental to feed the growing population in the developing countries including Pakistan. However, they are declining with each passing day; hence their efficient utilization and management is crucial for sustainable agriculture. On the other hand, poor irrigation water management creates the problems of waterlogging and secondary salinization that will spoil our fertile agricultural lands. The water resource, irrigation and drainage engineers are educated and trained to recognize the complex problems related to the planning, designing, and utilizing the available soil and water resources. This is only possible through better water application methods, conservation techniques, and water management practices. The government of Pakistan has been putting efforts to ensure water supplies for irrigated agriculture, industry, and domestic purposes. During past 65 years, several mega projects were launched in the fields of irrigation, drainage, and water resources engineering. Keeping in view the complexity of the soil and water related problems, the Department of Soil and Water Resources Engineering has been established at the Khairpur College of Agricultural Engineering and Technology, to produce young engineers and scientists in this field.

DEPARTMENT OF POS HARVEST TECHNOLOGY & PROCESS ENGINEERING

With growing concerns on food insecurity, especially in the densely populated areas of underdeveloped regions, the importance of postharvest and agro food process engineering has heightened in recent times. In Pakistan, the lack of knowledge of postharvest losses and appropriate storage facilities at farm level demands to establish the department of Postharvest Technology and Process Engineering. The department disseminates the knowledge about Farm Structures and Agricultural Process Engineering. Our graduates must be able to face the challenges concerned to the food quality, food nutrients and preservation and offer

viable solution, so that they can serve the society in general and farming community.

DEPARTMENT OF FARM POWER AND MACHINERY

The Department of Farm Power and Machinery (FPM) has been established with the aim to apply modern engineering knowledge to increase agricultural productivity, improve product quality and minimize losses through utilization of machines tools and power sources. The mission of the department is to provide leadership and excellence in teaching, research and outreach in farm power and machinery at graduate level and later it will be enhanced to postgraduate level. The department to be well equipped with Agricultural Engineering Workshop, Machinery Flail, Power Units Garage, Mechanical and Electronics Laboratories, Drawing & Design Laboratory, Machine Shop, Welding, and smithy Shops.

DEPARTMENT OF BASIC AND AGRIBUSINESS MANAGEMENT

The Department of Basic and Agribusiness Management has been established to offer various supporting courses like Applied Mathematics, Applied Physics, Computer Science and Engineering Mechanics with special application in Agricultural Engineering. Also, this department offers subjects of social sciences as well as agribusiness management. The mission of the department is to provide leadership and excellence in teaching, research and outreach in Agribusiness Management, Engineering Mechanics and Computer Science with Applied Mathematics at the graduate levels.

DEPARTMENT OF FOOD SCIENCES & TECHNOLOGY

The Department of Food Sciences and Technology (DFST) was established in 2020. The idea behind establishing the DFST in KCAET, Khairpur Mir's is to improve the quality of education and research in food-related fields, as dates, mangoes, and strawberries are grown in large quantities in the Khairpur Mir's district. Currently, the DFST offers a four-year B. Sc.

(Hons.) degree in Food Sciences and Technology and provides an educational program that is <u>similar to</u> that of all food technology departments / institutes in the country via a uniform curriculum in accordance with Higher Education Commission policy.

OBJECTIVES

- To provide high-quality education in the field of food sciences and technology in order to meet the needs of growers and food industries.
- · To research on various aspects of Food Science and Technology.
- To educate the rural masses in order to alleviate poverty.
- To develop post-harvest technologies to reduce fruit and vegetable waste.

FACILITIES

Several hi-tech laboratories that are fully equipped have been established during the initial setup of DFST. These laboratories are fully equipped for Food Analysis, Postharvest Technology, Food Microbiology, New Food Product Development, Cereal/Bakery Technology, and Freezing, Drying, and Dehydration. To carry out the relevant tasks, each laboratory is outfitted with advanced (e.g., GC-MS, HPLC, AAS) and common use instrumentation. In addition, the DFST features cold storage units for dates and other food-related materials such as vegetables and fruits. Other amenities include a computer lab with fiber internet access and a well-established library where students can study subject-related material and interact with other students in their respective fields.

JOB OPPORTUNITIES

In Pakistan, food technology graduates have a huge opportunity to become self-sufficient by establishing small food units such as bakeries, beverage production units, juice/squash preparation units, pickles, and so on. Apart from small individual establishment businesses, there is a demand for food sciences and technology graduates in the country's various food industries, including bread baking companies, national food companies, oil and beverage industries, fruit processor exporters, government organizations such as Sindh Horticulture Research Institute Mirpurkhas, Nuclear Institute of Agriculture, universities, private and semi-government companies, banks, agriculture research institutes, and so on.

SCHEME OF STUDIES OF B.SC. (HONS.) IN FOOD SCIENCE & TECHNOLOGY

S#	Course Code	Title	Cr. Hrs
		Sc (Hons.) Part-I 1st Semester	
1.	ENG-301	English I	3(3-0)
2.	BIO/MATH-303	Biology/Mathematics	3(3-0)
3.	STAT-305	Statistics	2(2-0)
4.	AGR-307	Basic Agriculture	3(2+1)
5.	PS-309	Pakistan Studies	2(2-0)
6.	IT-311	Introduction to Computer Science and Information Technology	2(1-1)
7.	FST-313	Introduction to Food Science & Technology	3(2+1)
		Total Credit Hours & Marks	18
B.Sc (Hons.) Part-I 2 nd Semester			
1.	FST-302	Food Chemistry	3(3-0)
2.	FS-304	Unit Operation in Food Processing	3(2+1)

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3.	STAT-306	Applied Statistics	3(2+1)
4.	MICRO-308	General Microbiology	3(2+1)
5.	IS-310	Islamic Studies/Ethics	2(2-0)
6.	HORT-312	Introduction to Horticulture & Orchard Management	3(2+1)
		Total Credit Hours & Marks	17
	Į	B.Sc (Hons.) Part-II 1st Semester	
1.	ENG-401	English II	2(2-0)
2.	ID -403	Fluid Mechanics	3(2+1)
3.	BCH-405	Essentials of Biochemistry	3(3-0)
4.	FST-407	Food Processing and Preservation	3(2+1)
5.	FST-409	Instrumental Techniques in Food Analysis	3(1-2)
6.	AH -411	Introduction to Animal Husbandry	3(2+1)
7.	AGEC-413	Agribusiness and Trade/ Marketing	3(3+0)
		Total Credit Hours & Marks	20
	Į	B.Sc (Hons.) Part-II 2 nd Semester	
1.	FST-402	Fruit and Vegetable Processing	3(2+1)
2.	PP-404	Introductory Plant Pathology	3(2+1)
3.	FST-406	Food Microbiology	3(2+1)
4.	FST-408	Technology of Oils and Fats	3(2+1)
5.	FST-410	Principles of Human Nutrition	2(2-0)
6.	ENT-412	Pest Control Procedures in Food Industry	3(2+1)
7.	FS-414	Food Process Engineering	3(2+1)
		Total Credit Hours & Marks	20

S#	Course	Title	Cr. Hrs
	Code		
B.Sc (Hons.) Part-III 1st Semester			
1.	FST-501	Food Biotechnology	3(2+1)
2.	FST-503	Sugar Technology	3(2+1)
3.	FST-505	Postharvest Technology	3(2+1)
4.	FST-507	Food Additives	3(2+1)
5.	FST-509	Cereal Technology	3(2+1)
6.	FST-511	Food Safety	2(2-0)
7.	FST-513	Poultry and Egg Processing	3(2+1)
		Total Credit Hours & Marks	20
		B.Sc (Hons.) Part-III 2nd Semester	
1.	FST-502	Confectionary and Snack Foods	3(2+1)
2.	FST-504	Bakery Products Technology	3(2+1)
3.	FST-506	Food Packaging	3(2+1)
4.	FST-508	Food Laws and Regulations	2(2-0)
5.	FST-510	Sea Food Processing Technology	3(2+1)
6.	FST-512	Dairy Technology	3(2+1)
		Total Credit Hours & Marks	17
		B.Sc (Hons.) Part-IV 1st Semester	
1.	FST-601	Community Nutrition	3(2+1)
2.	FST-603	Meat Technology	3(2+1)
3.	FST-605	Beverage Technology	3(2+1)
4.	FST-607	Food Product Development	3(2+1)
5.	FST-609	Research Projects and Scientific Writing	2(1-1)
6.	FST-611	Milk and Meat Hygiene and Public Health	3(2+1)
Total Credit Hours & Marks			

B.Sc (Hons.) Part-IV 2 nd Semester			
1.	FST-602	Food Quality Management	2(2-0)
2.	FST-604	Extrusion Technology	3(2+1)
3.	FST-606	Sensory Evaluation of Foods	3(2+1)
4.	FST-608	Food Plant Layout and Sanitation	2(2-0)
	FST-610	Internship & Report Writing	4(0-4)
Total Credit Hours		14	
Grand Total Credit Hours		143	

DEPARTMENT OF BIOTECHNOLOGY

Biotechnology is based on the application of scientific and engineering principles to the processing of materials by biological agents in order to produce goods and services for humans. Biotechnology has numerous applications in the industrial sector, agriculture, pharmaceuticals, healthcare, food, energy, the environment, and so on.

The Department of Biotechnology was established in KCAET, Khairpur Mir in 2020 with the goal of making an impact through research, technology-based training, and innovation. The department initially offers a four-year B. Sc. (Hons.) degree in biotechnology. Several laboratories have been established in order to provide high-quality education in Biotechnology. In addition to academic programs, the department has tissue culture and molecular biology/genetic engineering laboratories to help with national food security.

OBJECTIVES

- To provide high-quality education, research, innovation, and technological training.
- To advance and strengthen agricultural biotechnology.
- To develop and apply fundamental biotechnology knowledge for the efficient management of environmentally sound and liberal agriculture.
- To increase interaction between agriculture, medicine, the

environment, fisheries, food processing, renewable energy fuels, and other fields that share the common denominator of cells and products derived from them.

S#	Course	Title of Courses	Cr. Hrs
	Code	B. Sc. (Agri.) Hons. P-I (1st Semester)	
1	IS/EB-301	Islamic Studies/	2(2+0)
		Ethics (optional for Non-Muslim Students)	
2	MATH/BIOL- 301	Functional Mathematics /Biology	3(3+0)
3	SS-301	Introduction to Soil Science	3(2+1)
4	ENT-301	Introductory Entomology	3(2+1)
5	AGR-301	Basic Agriculture	3(2+1)
6	ENG-301	English Text, Grammar and Composition	3(3+0)
7	BT-301	Introductory Biotechnology	3(2+1)
		Total Credit Hours	20
		B. Sc. (Agri.) Hons. P-I (2nd Semester)	
1	AGEC-302	Introduction to Economics and Agricultural Economics	3(3+0)
2	PBG-302	Introductory Genetics	3(2+1)
3	HORT-302	Introductory Horticulture	3(2+1)
4	PP-302	Introduction to Plant Pathogens	3(2+1)
5	AGR-302	Field Crop Production-I	3(2+1)
6	AEE-302	Introduction to Agriculture Extension and Education	2(2+0)
7	PS-302	Pakistan Studies	2(2+0)
		Total Credit Hours	19
		B. Sc. (Agri.) Hons. P-II (1st Semester)	
1	PBG-401	Introductory Plant Breeding	3(2+1)

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2	CP-401	Introduction to Biochemistry	3(2+1)
3	PPT -401	Introduction to Pest Management	3(2+1)
4	HORT-401	Horticultural Crop Production	3(2+1)
5	FST-401	Introductory Food Science & Technology	3(2+1)
6	AHV-401	Introductory Animal Husbandry	2(1+1)
		Total Credit Hours	17
		B. Sc. (Agri.) Hons. P-II (2 nd Semester)	
1	AGR-402	Field Crop Production-II	3(2+1)
2	CP-402	Introductory Crop Physiology	3(2+1)
3	SS-402	General Soil Science	3(2+1)
4	ENT-402	Applied Entomology	3(2+1)
5	BT-402	General Biotechnology	3(2+1)
6	FPM-402	Farm Mechanization	2(1+1)
7	IT-402	Computer Applications	3(2+1)
		Total Credit Hours	20
		Grand Total	76

S#	Course Code	Title of Course	Cr. Hrs.
	B.Sc (Agri) Ho	ns. P-III (1 st Semester)	
1	BT-501	Metabolism-I	3(2+1)
2	BT -503	Molecular Biology I	3(2+1)
3	BT -505	Microbiology	3(2+1)
4	BT -507	Cell Biology	3(2+1)
5	BT -509	Analytical Chemistry and Instrumentation	3(2+1)
6	STAT-511	Elementary Statistics	3(2+1)
		Total	18

	B.Sc (Agri)	Hons. P-III (2 ND Semester)	
1	BT -502	Metabolism-II	3(2+1)
2	BT -504	Molecular Biology II	3(2+1)
3	BT -506	Immunology	3(2+1)
4	BT -508	Cell and Tissue Culture	3(2+1)
5	CP-510	General Biochemistry	3(2+1)
		Total	15
	B.Sc (Agri)	Hons. P-IV (1st Semester)	
1	BT -601	Bioinformatics	3(2+1)
2	BT -603	Recombinant DNA Technology	3(2+1)
3	BT -605	Microbial Biotechnology	3(2+1)
4	BT-607	Skills and Research Methodology for Biotechnologists	3(2+1)
5	BT-611	Plant Biotechnology	3(2+1)
		Total	15
	B.Sc (Agri)	Hons. P-IV (2 nd Semester)	
1	BT -602	Metabolomics, Proteomics and Genomics	2(2-0)
2	BT -604	Principles of Biochemical Engineering	3(2+1)
3	BT -606	Environmental Biotechnology	3(2+1)
4	BT -610	Internship and Report writing	4(0-4)
		Total	12
		Grand Total	60





Prof. Dr. JAN MUHAMMAD MARRI, PhD (SAU) CAMPUS DIRECTOR, SAU SUB CAMPUS, UMERKOT









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SINDH AGRICULTURE UNIVERSITY SUB-CAMPUS, UMERKOT

Sindh Agriculture University Sub-Campus, Umerkot is the first constituent sub-campus of Sindh Agriculture University, Tandojam. The campus is located in Umerkot city. This sub campus initiated its primary functioning in the building of Vocational Training Center (Boys) at Umerkot.

Bachelor's degree Program is offered various disciplines of Agriculture (Crop Production and Crop Protection) to impart education to the students coming from all over the Sindh. The major beneficiaries are Mirpurkhas, Umerkot, Tharparkar, and Sanghar districts as a larger number of seats are allocated to these districts. The graduates of this campus after receiving degrees shall serve in various fields related to agriculture in public and private sectors throughout world.

VISION

Transforming the lives of the communities of the region through agriculture and computer learning.

MISSION

The fundamental mission of Sindh Agriculture University Sub-campus at Umerkot is to meet the needs of its students by providing educational experiences in the field of agriculture and computer which is necessary to develop their potential for premier leadership, personal growth, and career success. Based upon student needs, the Campus mission focuses on offering a broad undergraduate curriculum consisting of tracks and concentrations in agricultural science and Information Technology.

OBJECTIVES

 To emphasize a primary commitment to students through quality teaching from well prepared, technologically proficient, professionally competent faculty.

- 2. To provide "hands-on "computer skills and agricultural experience through classroom, experiential and farm laboratory instruction.
- To perform practical research and/or remain technologically proficient through involvement in research-oriented activities.

ACADEMIC STAFF		
Jan Muhammad Mari	PhD (SAU)	Professor & Director
Ayaz Ali Soomro	PhD (China)	Assistant Professor
Vishandas Suthar	PhD (SAU)	Assistant Professor
Muhammad Saleem Chang	M.Sc. (SAU)	Lecturer
Imam Bux Chachar	M.Sc. (SAU)	Lecturer
Musavir Anwar Rustamani	M.Sc. (SAU)	Lecturer
Naveed Ahmed Abbasi	M.Sc. (SAU)	Lecturer
Muhammad Nawaz	M.Phil. (MUET)	Lecturer
Naeem Ali Kubar	MSIT (SAU)	Lecturer
Toufique Ahmed Nizamani	MSIT (SAU)	Lecturer
Lubna Khoso	MSIT (SAU)	Lecturer
Abid Ali Randhawa	M.Sc. (SAU)	Lab. Lecturer

GENERAL CO	GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	C. HRS.		
SEMESTER-I			
SS-301	Introduction to Soil Science-I	3 (2+1)	
AGR-301	Basic Agriculture	3 (2+1)	
AEE-301	Introduction to Argil. Education Extension	2 (2+0)	
ENG-301	ENG-301 English Text, Grammar and Composition		
ENT-301	Introductory Entomology	3 (2+1)	
IS/ETH-301	Islamic Studies / Ethics (Optional for Non- Muslim Students)	2 (2+0)	

MATH/BIOL- 301	Functional Mathematics-I / Introduction to Biology	3 (3+0)
BT-301	Introductory Biotechnology	3 (2+1)
SEMESTER-II		
AGR302	Field Crop Production-I	3 (2+1)
AGEC-302	Introduction to Economics & Agricultural Economics	3 (3+0)
PBG-302	Introductory Genetics	3 (2+1)
HORT-302	Introductory Horticulture	3 (2+1)
PP-302	Introduction to Plant Pathogens	3 (2+1)
PS-302	Pakistan Studies	2 (2+0)
MATH-302/ BIOL-302	Math-II / Introduction to Zoology	3 (3+0)
SEMESTER-III		
PBG-401	Introductory Plant Breeding	3 (2+1)
PPT-401	Introduction to Pest Management	3 (2+1
HORT-401	Horticultural Crop Production	3 (2+1)
BC P-401	Introduction to Biochemistry	3 (2+1)
FST-401	Introductory Food Science & Technology	3 (2+1)
AHV-401	Introductory Animal Husbandry	2 (1+1)
SEMESTER-IV		
AGR-402	Field Crop Production-11	3 (2+1)
ENT-402	Applied Entomology	3 (2+1)
AEE-402	Agric. Extension & Teaching Methods	3 (2+1)
ITC-402	Computer Applications	2 (1+1)
FPM-402	Farm Mechanization	2 (1+1)
SS-402	General Soil Science	3 (2+1)
CP-402	Introductory Crop Physiology	2 (1+1)

DEPARTMENTS

Four departments including Agronomy, Soil Science, Plant Protection, and Information Technology offer graduate degree programs. These departments are liable to offer course work and internship leading to bachelor's degree. The Graduate Degree Program of all four departments offer a four-year plan based on 8 semesters with specialization any one of the four major disciplines through following departments:

- Agronomy
- Soil Science
- Plant Protection
- Information Technology

DEPARTMENT OF AGRONOMY

Agronomy is concerned with the production management of various crops. The national economy is based on the agriculture and agronomy is the one of the most vital field of agricultural sciences. This department is organized and implemented in a manner which enables learners to acquire and develop competencies in crop production, management, crop research and research dissemination and entrepreneurial skills through learning activities and experiences that are based on real agricultural problems.

COURSES C	COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE TITLE OF COURSE C. HRS.			
SEMESTER	SEMESTER-V		
AGR-501	Arid & Rain-fed Agriculture	3 (2+1)	
AGR-503	Agro-Technology of Major Crops	3 (2+1)	
AGR-505	Field Crop Physiology	3 (2+1)	
AGR-507	Introduction to Crop Modelling	3 (2+1)	
AGR-509	Seed Production Technology	3 (2+1)	
STAT-511	Elementary Statistics	3 (2+1)	

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SEMESTER-VI			
SEMESTER	SIEK-VI		
AGR-502	Farm Record Maintenance	3 (2+1)	
AGR-504	Principles of Weed Science	3 (2+1)	
AGR-506	Plant Nutrients and Growth Regulators	3 (2+1)	
AGR-508	Medicinal and Special Crops	3 (2+1)	
CP-510	General Biochemistry	3 (2+1)	
SEMESTER	-VII		
AGR-601	Research and Scientific Writing	3 (2+1)	
AGR-603	Irrigation Agronomy	3 (2+1)	
AGR-605	Forage and Fodder Production	3 (2+1)	
AGR-607	AGR-607 Production Technology of Condiments & 3 (2+1) Spices SUPT-611 Environment and Crop Production 3 (2+1)		
SUPT-611			
SEMESTER	SEMESTER-VIII		
AGR-602	Agro Ecology	2 (2+0)	
AGR-604	Conservation Agronomy	3 (2+1)	
AGR-606	Organic Farming	3 (2+1)	
AGR-610	Internship and Report Writing	4 (0+4)	

DEPARTMENT OF SOIL SCIENCE

The Department of Soil Science is promoting education and research activities related to the soil and environmental sciences, through conducting basic and applied research in the field of soil fertility, soil salinity, quality assessment of irrigation water and soil. The faculty members are fully involved in teaching of modules and provide guidelines to the students for their academic research and report writing.

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.

R-V		
Physical Properties of Soil	3 (2+1)	
Chemical Properties of Soil	3 (2+1)	
Soil Fertility and Fertilizer Use	3 (2+1)	
Instrumentation & Laboratory Techniques	3 (2+1)	
Soil Genesis & Morphology	3 (2+1)	
Elementary Statistics	3 (2+1)	
t-VI		
Salt-Affected Soils and Water Quality	3 (2+1)	
Soil Survey and Land Evaluation	3 (2+1)	
Soil and Water Conservation	3 (2+1)	
Soil-Water-Plant Relationship	3 (2+1)	
General Biochemistry	3 (2+1)	
SEMESTER-VII		
Soil Microbiology	3 (2+1)	
Environmental Pollution and Management	3 (2+1)	
Trace Elements in Agriculture	3 (2+1)	
Carbon Sequestration in Soil	3 (2+1)	
Integrated Plant Nutrition Management	3 (2+1)	
SEMESTER-VIII		
Research Project and Scientific Writing	2 (2+0)	
Land Degradation and Management	3 (2+1)	
Municipal and Agro Waste Management	3 (2+1)	
Internship and Report Writing	4 (0+4)	
	Physical Properties of Soil Chemical Properties of Soil Soil Fertility and Fertilizer Use Instrumentation & Laboratory Techniques Soil Genesis & Morphology Elementary Statistics 2-VI Salt-Affected Soils and Water Quality Soil Survey and Land Evaluation Soil and Water Conservation Soil-Water-Plant Relationship General Biochemistry 2-VII Soil Microbiology Environmental Pollution and Management Trace Elements in Agriculture Carbon Sequestration in Soil Integrated Plant Nutrition Management 2-VIII Research Project and Scientific Writing Land Degradation and Management Municipal and Agro Waste Management	

DEPARTMENT OF PLANT PROTECTION

It is one of the important disciplines of agriculture and combines various aspects of Entomology, Plant Pathology and weed sciences. The major intentions of the section are to discover new techniques and demonstrate new principal of Crop Protection and improve the crop management so that local agriculture become socially viable, profitable for the farmers, and competitive on all markets.

Identifying agricultural useful natural enemies (insects, micro-organisms) or biological control of pests to conserve the environment, soil, and health hazards. In addition to practical training in plant protection, each student is expected to develop a working knowledge of ecology and expertise in the production of a particular crop or group of crops.

COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER	2-V	
PPT-501	Introduction to Pest Management	3 (2-1)
PPT-503	Pests of Field Crops	3 (2-1)
PPT-505	Plant Nematology	3 (2-1)
PPT-507	Pest Ecology	3 (2-1)
PPT-509	Introductory Acarology	3 (2-1)
STAT- 511	Elementary Statistics	3 (2+1)
SEMESTER-VI		
PPT-502	Post-Harvest Pest Management	3 (2-1)
PPT-504	Pests of Fruits, Vegetables &Ornamentals	3 (2-1)
PPT-506	Principles of Plant Disease Management	3 (2-1)
PPT-508	Pesticides & their Application Techniques	3 (2-1)
CP-510	General Biochemistry	3 (2+1)
SEMESTER-VII		
PPT-601	Pest Scouting and Forecasting	3 (2-1)
PPT-603	Biological Control	3 (2-1)

PPT-605	Vertebrate Pest and their Management	3 (2-1)
PPT-607	Pollinators and Plant Protection	3 (2-1)
PPT-611	Field IPM (For Non-Major)	3 (2-1)
SEMESTER-VIII		
PPT-602	Urban Pest Management	3 (2-1)
PPT-604	Range and Forest Pest Management	3 (2-1)
PPT-606	Plant Biosecurity and Biosafety	2 (2-0)
PPT-610	Internship / Research Project	4 (0-4)

DEPARTMENT OF ALLIED SCIENCES

This department offers compulsory and supporting course to others major disciplines, through following sections:

- 1. Plant Biotechnology
- 2. Food Sciences and Technology
- 3. Crop Physiology
- 4. English.
- Islamic & Pakistan Studies
- 6. Statistics
- 7. Agricultural Economics.
- 8. Agricultural Education Extension and Short Courses
- 9. Fundamental Mathematics / Biology
- 10. Farm Power and Machinery

COURSES C	OFFERED FOR BS(IT) HONS.
CODE	TITLE OF COURSE

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-	-I	

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ITC-301	Fundamental of ICT	3 (2+1)			
ITC-303	Basic Electronics	3 (2+1)			
ITC-305	Programming Fundamentals	4 (3+1)			
BE-301	Calculus and Analytical Geometry	3 (3+0)			
ENG-301	Functional English	3 (3+0)			
IS-301	Islamic Studies/ Ethics	2 (2+0)			
SEMESTER	2-П				
ITC-302	Object Oriented Programming	3 (2+1)			
ITC-304	Digital Logic Design	3 (2+1)			
ITC-306	Discrete Structure	3 (3+0)			
ITC-308	Principles of Management	3 (3+0)			
ENG-302	Communication Skills	3 (3+0)			
STAT-302	STAT-302 Probability and Statistics				
SEMESTER	R-III				
ITC-401	Data Structures and Algorithms	4 (3+1)			
ITC-403	Computer Communication and Networks	3 (3+0)			
ITC-405	Principles of Accounting	3 (3+0)			
ITC-407	Telecommunication System	3 (2+1)			
ENG-401	Technical and Report Writing	3 (3+0)			
BE-401	Linear Algebra	3(3+0)			
SEMESTER	2-IV				
ITC-402	Organizational Behavior Linear Algebra	3 (3+0)			
ITC-404	Internet Architecture	3 (3+0)			
ITC-406	Software Engineering	3 (3+0)			
ITC-408	Database Systems	4 (3+1)			
ITC-410	Multimedia Systems and Design	3 (2+1)			
PS-402	Pakistan Studies	2 (2+0)			

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SEMESTER	(-V			
ITC-501	Bioinformatics	3 (3+0)		
ITC-503	Operating Systems	3 (3+0)		
ITC-505	Object Oriented Analysis & Design	3 (2+1)		
ITC-507	Database Administration and Management	3 (2+1)		
ITC-509	Web Systems and Technologies	3 (2+1)		
ITC-511	Technology Management	3 (3+0)		
SEMESTER	2-VI			
ITC-502	Human Computer Interaction	3 (2+1)		
ITC-504	Systems and Network Administration	3 (2+1)		
ITC-506	Web Engineering	3 (2+1)		
ITC-508	Mobile Application Development	3 (2+1)		
ITC-510	System Integration and Architecture	3 (3+0)		
ITC-512	IT Project Management	3 (3+0)		
SEMESTER	2-VII			
ITC-601	Data and Network Security	3 (3+0)		
ITC-603	Routing and switching	3 (2+1)		
ITC-605	Service Oriented Architecture	3 (3+0)		
ITC-607	Cloud Computing	3 (2+1)		
SEMESTER	2-VIII			
ITC-602	Software Quality Assurance	3 (3+0)		
ITC-604	Professional Practices Assurance	3 (3+0)		
ITC-606	Artificial Intelligence	3 (2+1)		
ITC-608	Capstone Project	6 (0+6)		

UNDERGRADUATE ADMISSION POUCY 2021-22













ADMISSION POLICY (UNDERGRADUATE PROGRAMS 2021-22)

Ad	mission Policy Committee	
1.	Prof. Dr. Fateh Muhammad Mari, Vice Chancellor, SAU Tandojam	Chairman
2.	Prof. Dr. Khalil Ahmed <u>Ibupoto</u> Vice Chancellor, SAU Abdul Latif University, Khairpur	Member
3.	All Deans of Faculties, SAU Tandojam	Members
4.	Prof. Dr. A. Q. Mughal, Emeritus Professor, SAU Tandojam	Member
5.	Prof. Dr. Abdullah G. Arijo, Advisor (Academics) to Vice-Chancellor	Member
6.	Prof. Dr. <u>Inavatullah Raiper.</u> Chairman, Department of Soil Sciences	Member
7.	Prof. Dr. Allah Wadhayo Gandahi, Principal, SZABAC, Dokri	Member
8.	Prof. Dr. Jan Muhammad Mari Campus Director, SAU Sub Campus Umerkot	Member
9.	Prof. Dr. Abdul Mubeen Lodhi, Director, Advanced Studies	Member
10	Mr. Mumtaz Ahmed Jakhro Controller of Examination	Member
11	Mr. G. M. Qureshi, Registrar, SAU	Member
12	Mr. Ahmed Khan Mangi Director Admission	Member/Secretary

GENERAL INSTRUCTIONS

- Admission to the first year of all Undergraduate degree programs is made according to the policy and the rules framed by the university. The rules of admission described below are subject to modification by the statutory bodies of the university as and when considered necessary.
- In case a candidate provides incorrect information and/or false certificates / documents detected before or at any stage after admission, his/her admission shall be cancelled.
- A candidate suffering from any life-threatening contagious disease is not eligible for admission. If detected at any stage, his/her admission shall be cancelled.
- 4. An applicant registered with any other University / Institution / College, if selected at Sindh Agriculture University, Tandojam, SZABAC, KCAET and SAU Sub-Campus Umerkot shall be admitted only after his / her cancellation of registration / admission in other academic institution. Any proof of dual admission shall result in cancellation of admission at Sindh Agriculture University Tandojam, SZABAC, KCAET and SAU Sub-Campus Umerkot.
- An applicant previously admitted at any other University / Institution but rusticated / debarred before applying for admission at Sindh Agriculture University Tandojam shall not be considered for admission at this university.
- An applicant convicted of moral turpitude shall not be considered for admission.
- The hostel accommodation is not the liability of the university and shall only be provided subject to the availability of space.

Regulations for Admission to Undergraduate Degree Programs

Following regulations shall apply to candidates seeking admissions to B.Sc. (Agri.) Hons., D.V.M; BE. (Agri.); BSIT. (Hons.) and B.Sc. (Hons.) Food Sciences and Technology.

ELIGIBILITY

- Minimum requirements of admission shall be Intermediate (Pre-Medical, Pre-Engineering and Pre-Computer) in the years 2019, 2020 & 2021 or an equivalent qualification with at least 50% marks. This condition applies to all merit, self-finance as well as reserved seats and specified quotas. Rural/Urban quota shall however strictly be observed. However, the eligibility for B.E. (Agri.) shall be 60% marks in Intermediate (Pre-Engineering).
- Candidates appearing/passing Intermediate (Pre-Medical, Pre-Engg. and Pre-Computer) in the supplementary Examination 2021 shall not be eligible; however, candidates passing their Intermediate in supplementary examinations during the years 2019 and 2020 will be considered for admissions.
- Candidates with Intermediate in:
- a Pre-Medical Group shall be eligible for admission to D.V.M. in the Faculty of Animal Husbandry and Veterinary Sciences.
- b Pre-Engineering Group shall be eligible for admission to B.E. (Agri.) in the Faculty of Agricultural Engineering, SAU, Tandojam and KCAET.
- c Both Pre-Engineering & Pre-Medical Groups shall be eligible for admission to B. Sc (Agri.) Hons. In the Faculty of Agricultural Social Sciences at the ratio of 80:20 (80% Pre-Engineering, 20% Pre-Medical).
- d Both Pre-Medical & Pre-Engineering Groups shall be eligible for admission to B.Sc. (Agri.) Hons. in the Faculties of Crop Production, Crop Protection, SZABAC, SAU Sub-Campus Umerkot at the ratio of 80:20 (80% Pre-Medical, 20% Pre-Engineering).
- e Pre- Computer Group will be given priority for admission to BSIT. Hons. However, for vacant seat(s), Pre-Engineering/Pre-Medical groups shall be eligible at the ratio of 80:20 (80% Pre-Engineering, 20% Pre-Medical).

- f Pre-Medical, Pre-Engineering & Pre-Computer Groups shall be eligible for admission to B.Sc. Hons. Food Sciences & Technology at the ratio of 65:30:05 (65% Pre-Medical, 30% Pre-Engineering & 5% Pre-Computer).
- 4. Admission of Sindh-domiciled candidates shall be made according to district quota. The selection of candidates from district quota will be 80% from rural areas and 20% from urban areas. Urban areas in each district will be confined to Municipalities / Corporations as determined by the revenue department and the rest of the areas will be considered as rural. However, seats falling vacant either from rural or urban quota shall be filled within district.
- 5. Vacant seats from the quota of any one or more districts of a division shall be filled in from amongst the remaining candidates of the other districts of that division in order of their merit. In all cases, 80:20 ratio (rural 80%: urban 20%) shall be maintained. However, the seats still falling vacant (either urban or rural) shall be filled within division. Even after observing the above formulations, any seat falling vacant shall be filled on overall merit basis at provincial level.
- In case of marks being equal between two or more candidates, selection will be made based on marks obtained in science subjects related to the concerned Faculty.
- 7. Admission of candidates from Baluchistan, Khyber Pakhtunkhwa, Gilgit-Baltistan, FATA and AJK shall be made on the recommendations of their respective Governments / Authorities in accordance with the rules as laid down in the admission policy. The admission of such candidates shall be limited to the number of seats allocated for that province. Direct application will not be entertained. The final merit of nominated candidates shall be determined by Sindh Agriculture University Tandojam.
- Candidates from Baluchistan province shall be nominated by the Government of Baluchistan:

- a. Candidates belonging to Baluchistan Province and nominated by the Department of Livestock, Government of Baluchistan shall be considered for admission against reserved seats in the Faculty of Animal Husbandry & Veterinary Sciences. It is advisable that the nominating department shall nominate atleast five candidates for each reserved seat (i.e., 30 candidates may be nominated against 6 reserved seats). The final merit of nominated candidates shall be determined by Sindh Agriculture University Tandojam.
- b. Candidates belonging to Baluchistan Province and nominated by the Department of Agriculture Extension, Government of Baluchistan, shall be considered for admission against reserved seats in the faculties of Crop Protection, Crop Production, Agricultural Social Sciences and Agricultural Engineering, Information Technology Center, and Institute of Food Sciences & Technology. It is advisable that the nominating department shall nominate at least five candidates for each reserved seat (i.e., 200 candidates may be nominated against 40 reserved seats). The final merit of nominated candidates shall be determined by Sindh Agriculture University Tandojam.
- c. Nomination /replacement of candidates for admission against reserved seats made by the concerned nominating agencies and received by university after the closing date shall not be entertained / accepted.
- In case of reserved quota for Defense personnel, the nominations shall be made by General Headquarter/Naval Headquarter.
- 10. In case of quota reserved for the dependents of regular employees of Sindh Agriculture University Tandojam/ Constituent college(s) / Sub-Campuses, only the sons, daughters, real brothers/sisters shall be eligible to compete for reserved seats, provided their parents have put in 2 years of continuous regular service in the University (in-service or retired/expired). However, preference shall be given to sons / daughters.
- The candidates on sports quota shall be recommended for admission by the selection committee to be constituted by the

- Vice Chancellor. However, these seats are reserved only for candidates domiciled of various districts of Sindh Province. The candidates who have applied for admission and admitted under self-finance scheme shall not be considered to compete for admission against sports quota.
- 12. In case the selection of candidates is made in the faculty other than the first choice of candidate as per first selection list, they shall have to seek registration by paying prescribed amount of fee, if they want to be considered against waiting list and if they are keen interest to seek admission in discipline higher up in preference order, failing which they shall loose their right of admission and they shall not be considered for admission for the next selection list(s) even though they possess higher score of marks.
- 13. Candidates desire to retain the discipline/faculty where they have been selected, they may do so by submitting acceptance in own handwritten application with Director Admissions (Undergraduate Program) within 07 (seven) days from the date of announcement of list positively. The same will apply to retaining the subject of all other updated lists.
- 14. Any candidate who fails to give option of choices for his/ her selection as prescribed in the admission form, the selection of candidate will be made / determined by Admission Committee in the faculty as deemed appropriate as per merit which shall be treated as final.
- 15. The candidate(s) who have got admission by paying prescribed amount of fee and want to get their provisional admission cancelled; he / she shall be entitled to get refund of fee as per HEC policy.
- 16. There shall be no refund of self-finance fees. However, the candidate gets admission earlier under self-financing scheme but later, he / she shall be considered/allowed admission on merit, he / she shall be entitled to get refund of cost of self-finance seat as well as extra / excess amount of registration fees, if any, paid by

- him / her on account of admission / registration under self-finance scheme.
- All the candidates must produce marks certificates of S.S.C./ H.S.C. / Domicile/PRC and other required documents in original at the time of admission/registration which will be returned after necessary verification except intermediate marks certificate.
- After verification of the documents, in case of any forgery/manipulation detected at any stage, the authorities of the university shall have the right to cancel his / her admission/degree.
- 19. All the interested candidates who wish to get admission to bachelor's degree program for the academic year 2021-22 may signup admission portal (http://admission2021-22.sau.edu.pk). The candidates shall have to pay Rs. 3000/- (non-refundable) as registration/processing fee through challan in any branch of HBL. The candidate shall require sending the printed copy of the admission form along with four (04) recent passport size photographs & paid bank challan of prescribed/required amount of fees through surface mail up to closing date to the Director Admissions (Undergraduate Programs), Sindh Agriculture University Tandojam.
- 20. The candidates desiring to compete against reserved seats of Sports Quota shall have to fill/complete separate online admission form with relevant sports certificates. The receipt of Rs. 3000/(non-refundable) towards cost of admission form/registration/processing fee must be submitted within stipulated time. Single form filled in to compete against reserved seats of sports quota, shall be considered only for District merit quota seats.
- 21. Candidates applying for admission at Sindh Agriculture University & its constituent College(s) or Campus against seats reserved under self-finance scheme shall deposit prescribed amount of fees through bank pay order in advance. There is no separate form for admission on self-finance basis. They simply need to tick (√) the self-finance option (□) given in online form.

PRE-ADMISSION TEST

- 22. All applicants those applying for admission on Open Merit, Reserved Seats (on merit basis) for various categories or Nominees of Provincial / Federal Government and Self-Finance seats except students from overseas/ Armed Forces shall compulsorily have to appear in a University Pre-admission test.
- 23. Test shall be conducted in four subjects, with subject-wise weight age, number of questions and marks as shown below:

Subject	No. of Questions	Marks	Time		
Physics	25	25			
Chemistry / Computer	25	25	100 minutes		
Biology / Maths	30	30			
English	20	20			
Total	100	100			

24. Final merit list of the candidates shall be prepared according to the marks adjusted by the following formula: -

Examination	Weightage (% of marks obtained)
Matriculation	10%
Intermediate	60%
Pre-Admission Test	30%

- Candidate securing atleast 20% marks in the Pre-Admission Test shall be eligible to compete for admission.
- Twenty (20) Marks for Agriculture as third component in Matriculation examination shall be added to the total marks obtained in matriculation and the percentage shall be calculated for such candidates.

- One (01%) of the aggregate marks for each year shall be deducted from the total marks of Intermediate Science if the examination was passed during the year 2019 and 2020.
- Twenty (20) Marks for Hafiz-e- Qur'an shall be added to the total marks obtained in the Intermediate Science examination and then the percentage shall be calculated for such candidate.

IDENTITY CARD

29. The students, after getting admission at the University / College / SAU Sub-Campus, will be issued identity cards. It is necessary for the students to keep their valid identity cards with them while attending the classes, traveling in the point buses or staying at the campus.

RE-ADMISSION POLICY

30. Those students who remained absent from their classes and examinations for any reasons, will be considered for re-admission in the appropriate semester where they left their studies, with the appropriate batch subject to application of other relevant rules, provided the application for re-admission shall be routed through the Dean/ Coordinator/ Principal/ Director of the Faculty/ College/ Sub-Campus concerned giving the cogent reasons.

ENROLMENT CARD

31. Each student is required to enroll himself/ herself in the University after the finalization of the discipline in the first term of First Year and obtain enrolment card accordingly. In case of failure, he / she will not be allowed to appear in the examination of the first semester of the first year.

REGISTRATION FORM

32. The students seeking admission in each subsequent semester shall pay fees through bank challan in the relevant University/College(s)/Sub-Campus account(s) and shall submit their registration forms duly completed in all respects in the relevant University / College / SAU Sub-Campus Branch within stipulated time. In case any student who pays registration, fees but fails to submit registration form in the relevant University /College / SAU Sub-Campus Branch, he / she shall be charged 50% of the late fees chargeable at the time when he/she submits the registration form in the relevant University/ College / SAU Sub-Campus Branch.

MIGRATION RULES AND REGULATIONS

- 33. a. Regulations governing the admission of students to the Sindh Agriculture University, Tandojam by migration from other Universities or Institutions.
 - Subject to the provisions of Regulations, the Vice Chancellor may admit a student to the University by migration from other Universities or Institutions according to the regulations.
- No student shall be admitted to first year class by such Migration.
- Admission by migration to classes other than first year shall not be allowed ordinarily after the expiry 3 weeks from the commencement of the session.
- iii. No student shall be admitted by migration from a University or HEIs in Pakistan unless he produces a "no objection certificate" and good moral character certificate to the effect that the student has not been debarred from taking University Examination and suspended or not expelled or rusticated from the University or institution from which he/she intends to migrate and that no disciplinary action is pending against him/her.

- iv. An application for admission by migration shall be accompanied by detailed marks certificates showing the examinations passed by a student including Intermediate (Pre-Engineering, Pre-Computer & Pre-Medical Groups) B.Sc. /B. E & DVM exam: based on which he/she secured original admission in the parent University or Institution.
- v. The migration of the students belonging to HEC recognized Universities/Institutes of Sindh Province including constituent Colleges / Sub-Campus of SAU shall be allowed on the payment of Rs. 200,000/- to the Sindh Agriculture University Tandojam, while students belonging to HEC recognized Universities/Institute.
- vi. The student seeking admission by migration shall have to pay fee for registration and examination for each semester of the pertinent degree program as applicable to other students at SAU.
- vii. That in addition to fee for admission by migration, the interested student shall have to pay Rs.5,000/- (Rupees five thousand) only as case processing fees (non-refundable) with application for admission by migration.
- viii. That case for admission by migration shall be scrutinized through SAU Equivalence Committee and Credit hours Committee for determining its eligibility.
- No student admitted to any University or Institution against seats reserved for special categories shall be eligible for admission by migration.
- c. Only those students who possess academic record comparable Colleges/Sub-Campus with admission requirements of this University shall be considered for admission.
- Note: No student seeking admission to second year who is required to carry more than four papers of 1st year (50% theory and 50% Practical) of this University shall be considered for admission by migration.
- d. The grounds for migration shall constitute changes in circumstances which render it practically impossible for the

student to continue his/her studies in his/her parent University or Institution.



For further information please contact

Ahmed Khan Mangi, Director Admissions

Phone: 022-3405184 Fax: 022-3405300 | Email: directoradmissionsup@sau.edu.pk

BREAKUP OF VARIOUS FEES (Rupees) Fee to be charged from the students registering in all the faculties

		ree to be charged from the students registering in all the faculties 2021-22								2021-22				
		MAIN CAMPUS								CONSTITUENT COLLEGES/SUB-CAMPUS				
S.#	Fees Structure			lst Admission			Subsequent				1st Admission	Subsequent Semesters		
		Mei	rit		Self-Finance		rit	Self-Fi	nance	Merit	Self-Finance	Merit	Self-Finance	
		B.Sc./B.E./ BSIT	DVM	B.Sc./B.E./ BSIT	DVM	B.Sc./B.E./ BSIT	DVM	B.Sc./B.E./ BSIT	DVM	B.Sc./B.E./ BSIT	B.Sc./B.E./ BSIT	B.Sc./B.E./ BSIT	B.Sc./B.E./ BSIT	
1	Admission Fee (Once)	9,000.00	11,300.00	8,950.00	11,300.00	•	•			8,200.00	8,000.00		-	
2	Registration Fee (Per Semester)	4,000.00	4,500.00	4,000.00	4,500.00	2,000.00	2,250.00	2,000.00	2,250.00	3,200.00	3,000.00	1,650.00	1,450.00	
3	Tuition Fee (Per Semester)	5,000.00	5,500.00	10,000.00	11,000.00	5,465.00	6,040.00	10,415.00	11,540.00	4,000.00	8,500.00	4,000.00	8,500.00	
4	Gymkhana Fee (Per Semester)	1,000.00	1,000.00	1,000.00	1,000.00	700.00	700.00	700.00	700.00	500.00	700.00	700.00	700.00	
5	Magazine Fee (Per Semester)	500.00	500.00	500.00	500.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	
6	Co-curricular Activities Fee (Per Semester)	800.00	800.00	800.00	800.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	
7	Enrolment Card Fee (Once)	900.00	900.00	900.00	900.00	-	-	-	-	700.00	700.00	-		
8	Identity Card Fee (Per Semester)	400.00	400.00	400.00	400.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	
9	Library User Charges Fee (Per Semester)	1,600.00	1,600.00	1,600.00	1,600.00	300.00	300.00	300.00	300.00	1,500.00	1,500.00	300.00	300.00	
10	Library Card Fee (Per Semester)	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	
11	Certificate verification Fee (Once)	1,700.00	1,700.00	1,700.00	1,700.00	-	-	-	-	1,700.00	1,700.00	-		
12	Examination Fee (Per Semester)	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00	
13	Transport Fee (Per Semester)	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	
	Total	28,600.00	31,900.00	33,550.00	37,400.00	13,365.00	14,190.00	18,315.00	19,690.00	24,700.00	29,000.00	11,550.00	15,850.00	
Capitation Charges once from the candidates other than Sindh Province to be admitted either against reserved seat or against self-finance scheme:											150,000/-			
PVMC	Registration Fee chargeable once only from stu	dents registering	g in DVM pro	gram									1,000/-	

SELF-FINANCING CHARGES (Rs.)

		Sind	lh Province	Other Province			
S#	Program	Lump Sum	Two (02) equal installments (to be charged in first 02 semesters)	Lump Sum	Two (02) equal installments (to be charged in first 02 semesters)		
1	DVM	500,000	(300,000 x 2) = 600,000	1,000,000.00	(Rs. 600,000 x 2) = 1,200,000		
2	BE (Agri.)	250,000	(150,000 x 2) = 300,000	700,000.00	(Rs. 400,000 x 2) = 800,000		
3	BSIT (Hons.)	200,000	(125,000 x 2) = 250,000	600,000 .00	(Rs. 350,000 x 2) = 700,000		
4	B.Sc. (Hons) FST	200,000	(125,000 x 2) = 250, 000	600,000.00	(Rs. 350,000 x 2) = 700,000		
5	B.Sc. (Agri.) Hons.	150,000	(100,000 x 2) = 200, 000	500,000.00	(Rs. 300,000 x 2) = 600,000		

Government Taxes will be applicable as per prevailing rates, however, during year 2021-22, 5% income tax will be charged in case if fees amount (cost of self-finance seat including registration fees and capitation charges) exceeds Rs.200,000/- in each of above programs

CHANGE OF FACULTY/DEPARTMENT CHARGES (Rs.)

S#	Program / Faculties Lump Sum		2 equal installments (to be charged in first 2 semesters)
1	DVM	300,000	(200,000 x 2) = 400, 000
2	BE (Agri.)	125,000	(75,000 x 2) = 150,000
3	BSIT (Hons.)	125,000	(75,000 x 2) = 150,000
4	B.Sc. (Agri.) Hons.	125,000	(75,000 x 2) = 150,000
5	B.Sc. (Hons.) FST	125,000	(75,000 x 2) = 150,000

Note:

- . Change of faculty is only allowed to candidates of Sindh Province, subject to the existing rules and following conditions:
- · Change will only be allowed against the vacant seat in a faculty from amongst self-finance quota.
- Application/request for change of faculty will only be entertained if submitted to the Director Admissions (Undergraduate Programs) within 2 weeks of the last date of the deposition of admission fee.
- Request of candidates belonging to other Provinces for change of faculty shall not be considered.
- · Charges/amount for Change of Faculty cannot be claimed / refunded after registration.
- Installments of the cost of self-finance seat(s) shall be paid in first and second semesters of degree program.
- . No student shall be allowed to change his / her discipline / course after the specified period as mentioned in relevant clause of Admission Policy.

OTHER FEES (Rs.)

SR. NO.	PARTICULARS	FEE (Rs.)
1	Marks Certificate (Ordinary)	400
2	Marks Certificate (Urgent)	650
3	Migration Certificate	4000
4	Duplicate Migration Certificate	6500
5	Pass Certificate (Ordinary)	350
6	Pass Certificate (Urgent)	650
7	Aggregate Marks Certificate (Ordinary)	400
8	Aggregate Marks Certificate (Urgent)	650
9	Degree Certificate in Convocation	7000
10	Degree Certificate in Absentia	7000
11	Duplicate Degree Certificate	10000
12	Appearance Certificate	500
13	Result Announcement Certificate	500
14	Transcript Certificate (Ordinary)	750
15	Transcript Certificate (Urgent)	1000
16	Eligibility Certificate	1250
17	Gap Certificate	650
18	Bonafide Student Certificate	400
19.	SAU Certificate Verification	650
20	Academic Performance Certificate	400
21	21 Correction / Re- totaling of Marks	
22	Duplicate Admit Card	150
23.	SAU Certificate Verification (Overseas)	\$ 60

HOSTEL ACCOMODATION FEES/CHARGES

S.#	Name of Fees/Charges	Rs. Per Year/Annum
1.	Hostel Admission Fee	600
2.	Hostel Card	200
3.	Hostel Form	300
4.	Room Rent	800
5.	Electric	600
6.	Water	300
7.	Caution Money	800
8.	Clinical	300
9.	Development	200
10.	Internet	1200
12.	Sui Gas	200
	TOTAL	5,500

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Faculty Wise Distribution of Merit Seats for Various Districts of Sindh. R=Rural U=Urban

			B.Sc. ((Agri.) Hor	13.		B.E.	B.E (Agri) DVM				SIT	B.Sc. (Hons)	
Division / District	Faculty of Crop Production		Faculty of Crop Protection		Faculty of Agricultural Social Sciences		Faculty of Agricultural Engineering		Faculty of Animal Husbandry & Veterinary Sciences		Information Technology Centre		Institute of Food Science & Technology		Tota
	R	U	R	U	R	U	R	U	R	U	R	U	R	U	
•	- 10	<u>, , , , , , , , , , , , , , , , , , , </u>	10		, 10	, 0		AD DIVISION		, ,	10	, ,	, 10	, ,	-
Hyderabad	20	5	10	3	. 8	2	7	2	7	2	11	3	2	1	83
Tando Allahyar	6	2	4	1	2	1	2	1	2	1	3	1	1	0	27
Tando Muhammad	6	1	4	1	3	1	2	1	2	1	3	1	1	0	27
Khan		•	7	1 *	_	•	-	1	_	•	-	1	•		-"
Matiari	7	2	4	1	3	1	2	1	2	1	3	1	1	0	29
Badin	13	3	8	2	6	1	5	1	5	1	7	2	2	1	57
Thatta	7	2	4	1	4	1	3	1	3	1	6	1	1	0	35
Sujawal	6	1	4	1	2	1	2	0	2	0	3	1	2	0	25
Dadu	14	3	9	2	5	1	5	1	5	i	8	2	2	0	58
Jamshoro	7	2	4	1	3	1	3	1	3	1	5	1	2	1	35
Sub-Total	86	21	51	13	36	10	31	9	31	9	49	13	14	3	376
223 20182								AS DIVISION						-	
Mirpurkhas	12	: 3	7	2	5	1	4	1	4	1	8	2	2	1	53
Umerkot	8	2	4	1	3	1	3	1	3	1	6	1	2	0	36
Tharparkar	11	3	6	1	5	1	4	1	4	1	7	2	2	1	49
Sub-Total	31	8	17	4	13	3	11	3	11	3	21	5	6	2	138
						SHAI	HEED BENAZ	ZIRABAD DIV	ISION						
Shaheed Benazir	14	3	7	2	6	1	5	1	5	1	7	2	2	0	56
Abad		İ													
Noushehro Feroze	13	3	8	2	5	1	5	1	5	1	8	2	2	0	56
Sanghar	16	4	9	2	6	1	6	1	6	1	9	2	3	1	67
Sub-Total	43	10	24	6	17	3	16	3	16	3	24	6	7	1	179
							SUKKUR	DIVISION							
Sukkur	12	3	6	1	5	1	4	1	4	1	6	2	2	0	48
Ghotki	13	3	7	2	4	1	4	1	4	1	6	2	2	0	50
Khairpur	20	5	10	3	8	2	7	2	7	2	10	3	2	1	82
Sub-Total	45	11	23	6	17	4	15	4	15	4	22	7	6	1	180
								A DIVISION							
Larkana	12	3	6	2	4	1	4	1	4	1	8	2	2	1	51
Qambar/Shahdad	11	3	6	1	5	1	4	1	4	1	7	2	2	0	48
Kot	11			1	-	1	1	,	4	,	,		1	1	- 10
Shikarpur Jacobabad	11 9	3	5	1	5	1	3	1	3	1	- 6 - 5	2	2	1	48 37
Jacobabad Kashmore	9		_	1	_	1	3	1	3	1		1	1	0	36
Kashmore Sub-Total		2	4		4	5		5	_	5	5	-	-	0	
Sub-Total Karachi Division	52	13	27	6	21	5	18	5	18	5	31	8	9	2	220
	6	2	2	26	2	1	2	25	2	1	2	10	2	0	25
Grand Total	263	65	144	36	106	26	93	25	93	25	149	40	44	9	1118

FACULTY WISE BREAKUP OF SEATS FOR VARIOUS CATEGORIES

	Categories		B. Sc (Agri.) Hor	15.	B.E. (Agri)	DVM	BSIT	B. Sc (Hons) IFST	Total
	-	Faculty of Crop Production	Faculty of Crop Protection	Faculty of Agricultural Social Sciences	Faculty of Agricultural Engineering	Faculty of Animal Husbandry & Veterinary Sciences	Information Technology Centre	Institute of Food Science & Technology	Iotal
Α	Hyderabad Division	107	64	46	40	40	62	17	376
	Mirpurkhas Division	39	21	16	14	14	26	8	138
	Shaheed Benazir Abad Division	53	30	20	19	19	30	8	179
	Sukkur Division	56	29	21	19	19	29	7	180
	Larkana Division	65	33	26	23	23	39	11	220
	Karachi Division	8	3	3	3	3	3	2	25
	Sub-Total (A)	328	180	132	118	118	189	53	1118
В	Girls (Sindh Province)	15	12	13	8	16	12	7	83
	Special persons (Sindh Province)	1	1	1	1	1	1	1	7
	Dependents of regular SAU Employees / Constituent College(s) / Sub-Campus	12	10	9	7	9	9	5	61
	Armed Services	3	3	3	2	3	2	2	18
	Baluchistan	17	10	10	8	6	1	1	53
	Khyber Pakhtunkhwa	0	0	0	0	6	0	0	6
	Gilgit Baltistan	1	1	1	0	4	0	1	8
	Azad Jammu & Kashmir	0	0	0	0	7	0	0	7
	FATA	1	1	1	0	0	1	1	5
	Foreigners	5	5	5	1	3	4	4	27
	Afghan Nationals	2	2	2	0	2	2	2	12
	Overseas Pakistanis	3	3	3	1	2	3	1	16
	Organization of Islamic Countries (OIC)	0	0	0	2	0	0	0	2
	Real Sons/Daughters/Brothers/Sisters of Graduate/Post Graduate Degree holders of defunct King George-V institute of Agri. College and Agri. University, Tandojam who are not presently employees of Sindh Agriculture University, Tandojam	1	1	1	1	1	1	1	7
	Sub-Total (B)	61	49	49	31	60	36	26	312
С	Self-Finance Seats (C)	36	32	23	9	50	30	7	187
D	Sports Seats (Sindh Province)	5	5	5	4	5	5	2	31
E	Sports seats (sindiff for girls (Sindh Province)	1	0	1	1	1	1	0	5
	Total (A+B+C+D+E)	431	266	210	163	234	261	88	1653

Note:

- The vacant seats on different quotas shall be distributed as per policy within the districts of Sindh province.
 The remaining seats (falling vacant at initial stage) of foreigners, Azad Jammu & Kashmir, Armed Services etc. shall be shifted/transfer/ filled-up under self-finance scheme.
 50% of the self-finance seats are reserved for Sindh province and 50% for other Provinces.

SHAHEED ZULFIQAR ALI BHUTTO AGRICULTURAL COLLEGE (SZABAC), DOKRI DISTRICT WISE DISTRIBUTION OF MERIT SEAT

S #	DISTRICT	URBAN	RURAL	TOTAL				
SU	SUKKUR DIVISION							
1	Sukkur	3	14	17				
2	Ghotki	3	13	16				
3	Khairpur	4	18	22				
	Sub-Total	10	45	55				
SH	SHAHEED BENAZIRABAD DIVISION							
4	Shaheed Benazir Abad	3	13	16				
5	Noushehro Feroze	4	16	20				
	Sub-Total	7	29	36				
LA	LARKANA DIVISION							
6	Larkana	5	20	25				
7	Qambar/Shahdad Kot	3	10	13				
8	Shikarpur	3	13	16				
9	Jacobabad	3	13	16				
10	Kashmore	3	10	13				
	Sub-Total	17	66	83				
11	Dadu (talukas Mehar & K.N. Shah)	3	10	13				
	Sub-Total	3	10	13				
VARIOUS QUOTA/CATEGORIES								
12	Girls Quota	ı	ı	3				
13	Employees Quota	1	-	3				
14	Self-Finance	-	-	5				
15	Sports Quota	-	-	2				
	Sub-Total	0	0	13				
		Gr	and Total	200				

PROSPECTUS 2021-22

KHAIRPUR COLLEGE OF AGRICULTURAL ENGINEERING & TECHNOLOGY DIVISION AND DISTRICT WISE ALLOCATION/DISTRIBUTION OF SEATS

DIVISION AND DISTRICT WISE ALLOCATION/DISTRIBUTION OF SEATS												
S#	District		B.E. (Agri.)			B.Sc. (Agri.) Hons.			B.Sc. Hons			Grand Total
13 #F			Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Grand Total
SUKK	UR DIVISION											
1	Sukkur		1	3	4	1	2	3	1	2	3	10
2	Ghotki		1	1	2	1	1	2	1	1	2	6
3	Khairpur		2	4	6	1	2	3	1	2	3	12
		Sub Total	4	8	12	3	5	8	3	5	8	28
SHAH	EED BENAZIRABAD DIVISION											
4	Shaheed Benazir Abad (Nawab shah)		-	2	2	-	1	1	-	1	1	4
5	Noushehro Feroze		1	2	3	1	1	2	1	1	2	7
6	Sanghar		-	1	1	-	1	1	-	1	1	3
		Sub Total	1	5	6	1	3	4	1	3	4	14
LARK	ANA DIVISION											
7	Larkana		1	2	3	1	1	2	1	1	2	7
8	Qambar/Shahdad Kot		1	1	2	1	1	2	1	1	2	6
9	Shikarpur		1	2	3	1	1	2	1	1	2	7
10	Jacobabad		1	1	2	1	1	2	1	1	2	6
11	Kashmore		-	1	1	-	1	1	-	1	1	3
		Sub Total	4	7	11	4	5	9	4	5	9	29
MIRP	URKHAS DIVISION											
12	Mirpurkhas (Division)		-	-	2	-	-	2	-	-	2	6
		Sub Total	0	0	2	0	0	2	0	0	2	6
HYDE	RABAD DIVISION											
13	Hyderabad (Division)		-	-	5	-	-	3	-	-	3	11
		Sub Total	0	0	5	0	0	3	0	0	3	11
KARA	CHI DIVISION											
14	Karachi		1	-	1	1	-	1	1	-	1	3
		Sub Total	1	0	1	1	0	1	1	0	1	3
VARIO	DUS QUOTA/CATEGORIES											
Girls (Quota				2	-	-	1	-	-	1	4
	yees Quota				2	-	-	1	-	-	1	4
	l Persons				2	-	_	1	-	_	1	4
эрссій		Sub Total	0	0	6	0	0	3	0	0	3	12
		Grand Total	10	20	43	9	13	30	9	13	30	103
		Grand Total	10	20	45	,	13	30	,	15	30	105

SINDH AGRICULTURE UNIVERSITY SAU SUB-CAMPUS UMERKOT DIVISION AND DISTRICT WISE ALLOCATION/DISTRIBUTION OF SEATS

S	District	B.Sc. (Agri.) Hons.		BSIT. I	Grand			
#			Rural		Urban	Rural	Total	Total
SUI	SUKKUR DIVISION							
1	Sukkur	0	1	1	1	1	2	3
2	Ghotki	0	1	1	1	1	2	3
3	Khairpur	0	1	1	1	1	2	3
	Sub Total	0	3	3	3	3	6	9
	AHEED BENAZIRA							
4	S. B. Abad	0	1	1	1	1	2	3
5	Noushehro Feroze	0	1	1	1	1	2	3
6	Sanghar	1	3	4	1	3	4	8
	Sub Total	1	5	6	3	5	8	14
LA	RKANA DIVISION							
7	Larkana	0	1	1	1	1	2	3
8	Qambar / Shahdad Kot	0	1	1	1	1	2	3
9	Shikarpur	0	1	1	1	1	2	3
10	Jacobabad	0	1	1	1	1	2	3
11	Kashmore	0	1	1	1	1	2	3
	Sub Total	0	5	5	5	5	10	15
М	RPURKHAS DIVIS	ION						
12	Mirpurkhas	2	6	8	2	8	10	18
13	Umerkot	2	6	8	2	9	11	19
14	Tharparkar	2	6	8	2	9	11	19
	Sub Total	6	18	24	6	26	32	56
	DERABAD DIVISI	ON						
15	Hyderabad	1	1	2	1	1	2	4
16	Matiari	0	1	1	1	1	2	3
17	T. M. Khan	0	1	1	1	2	3	4
18	T. Allahyar	0	1	1	1	2	3	4
19	Dadu	0	1	1	1	1	2	3
20	Jamshoro	0	1	1	1	1	2	3
21	Thatta	0	1	1	1	1	2	3
22	Badin	0	1	1	1	2	3	4
23	Sujawal	0	1	1	1	2	3	4
77.4	Sub Total	1	9	10	9	13	22	32
	RACHI DIVISION					. 1	•	1
24	Karachi	1	0	1	1	1	2 2	3
Sub Total 1 0 1 1 1 2 3 VARIOUS QUOTA/CATEGORIES								
Girls Quota 3 2 5								
Employees Quota		-	-	1	-	-	2	3
Self-Finance		-		5	-	-	15	20
	Self-Finance Sports		-	2	-	-	15	3
Spo	Sub Total	-		11			20	31
	Grand Total	9	40	60	27	53	100	160
	Grand 10tal	,	40	, 00	21	53	100	100

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TABLE: D	ETAILS OF URBAN AREAS OF SINDH PROVINCE
1.	Sukkur District a) Sukkur Municipality b) Rohri Municipality
2.	Ghotki District a) Ghotki Municipality b) Mirpur Mathelo Municipality
3.	Khairpur District a) Khairpur Municipality b) Pir-jo-Goth Municipality c) Gambat Municipality
4.	Shaheed Benazir Abad District a) Nawabshah Municipality
5.	Naushero Feroze District a) Moro Municipality
6.	Larkana District a) Larkana Municipality b) Ratedero Municipality c) Naudero Municipality
7.	Kambar Shahdadkot District a) Shahdadkot Municipality b) Qamabar Municipality
8.	Shikarpur District a) Shikarpur Municipality
9.	Jacobabad District a) Jacaobabad Municipality
10.	Kashmore District a) Kandhkot Municipality
11.	Hyderabad District a) Hyderabad Municipality b) Hyderabad Cantonment c) Tandojam Municipality

12.	Matiari District
	a) Hala Municipality
13.	Tando Allahyar District
	a) Tando Allahyar Municipality
14.	Tando Muhammad Khan District
	a) Tando Muhammad Khan Municipality
15.	Dadu District
	a) Dadu Municipality
	b) Mehar Municipality
	c) Khairpur Nathan Shah Municipality
16.	Kotri District
	a) Kotri Municipality
17.	Thatta District
	a) Thatta Municipality
18.	Badin District
	a) Badin Municipality
	b) Mati Municipality
19.	Mirpur Khas District
	a) Mirpur Khas Municipality
20.	Umerkot District
	a) No Urban Areas
21.	Tharparkar District
	a) No Urban Areas
22.	Sanghar District
	a) Sanghar Municipality
	b) Shahdadpur Municipality
	c) Tando Adam Municipalityd) Sanjhoro Municipality
23.	Karachi
25.	Karaciii





- KEEPING EDUCATIONAL AND INSTRUCTIVE PROGRAM UPDATED
- CONSTANT IMPROVEMENT OF EDUCATIONAL AND INSTRUCTIONAL PROCESSES
- RAISING THE QUALITY OF THE STUDENTS



OUTREACH

- TO DEVELOP COLLABORATION WITH INDUSTRIES AND TECHNOLOGY REGIONS
- TO INCREASE RECOGNITION AND EFFICIENCY ON NATIONAL AND INTERNATIONAL LEVELS



Research

- To conduct quality research
- To develop research plans for community development
- To enhance crop production through evaluation and adopting modern techniques







LABORATORIES

Independent and fully equipped laboratories are available for graduate and postgraduate practical teaching and demonstration under the administration of various teaching departments of the University. The University also maintain Horticulture Garden, Botanical Garden, Student Farm, Livestock Experimental Station, Poultry **Experimental Station, Veterinary** Hospital, and Agricultural **Engineering Workshop for** imparting practical training to the students.

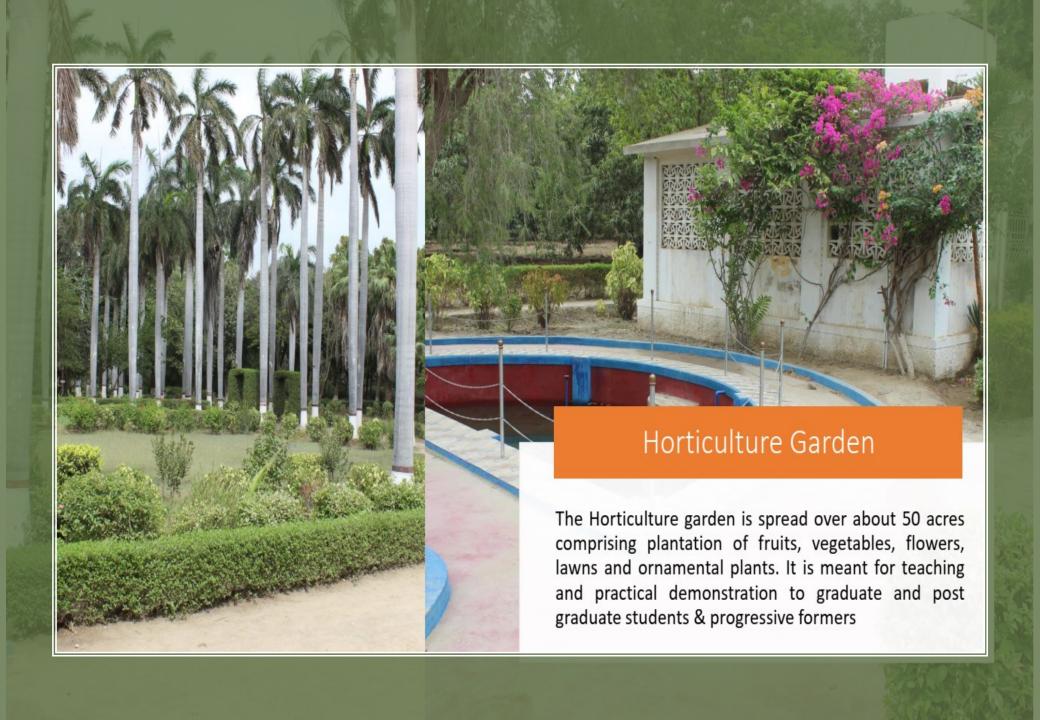














UNIVERSITY POINT BUSES PLY FROM UNIVERSITY TO HYDERABAD AND BACK FOR TEACHERS, STAFF AND STUDENTS. RECENTLY THE POINT BUS FACILITY IS EXTENDED TO TANDO ALLAHYAR AND MIRPURKHAS FOR STUDENTS, TEACHERS AND OTHER STAFF MEMBERS.

Auditorium

- Main Auditorium with 650 seats and Dr. A. M. Shaikh Auditorium with 275 Seats provide a venue for continuum education, shot courses, seminars, workshops, conferences, symposia and extra curricular activities.
- New Auditorium with capacity above 1000 is under construction.





Health Services

The University has two well equipped dispensaries one at the residential colony and other at students' hotels. The dispensaries are managed by qualified staff and all the paraphernalia needed for the treatment of staff and students are available. There is a provision for indoor patient ward with provision of 18 beds where the indoor serious patients are admitted, the arrangement of X-Ray plant for an emergent medical checkup is also available. The doctor is always available and could be called for examinations and treatment in case of emergency. In emergencies ambulatory facilities are available to carry the serious patients to Hyderabad city for treatment.

STUDENT TEACHERS' ENGAGEMENT PROGRAM





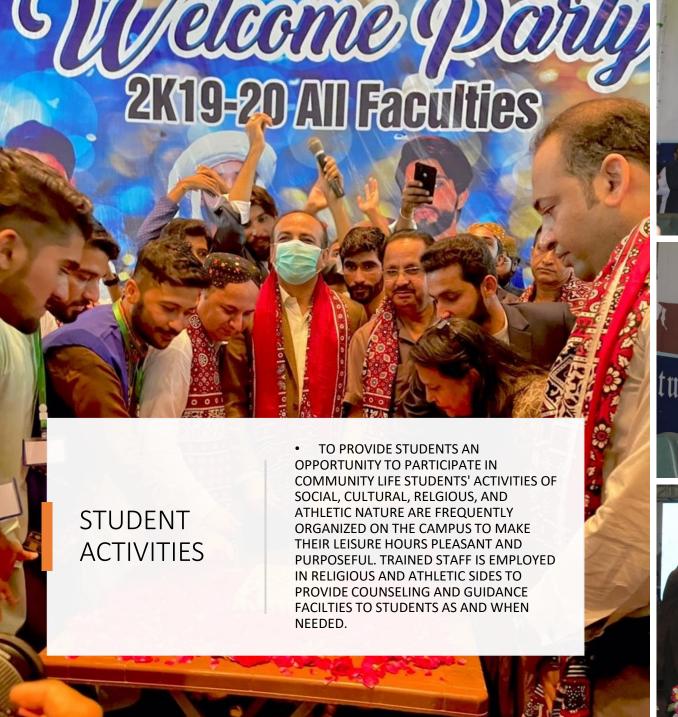




• STEP IS A JOINT FORUM OF TEACHERS AND STUDENTS OF SINDH AGRICULTURE UNIVERSITY, WHICH HAS BEEN ENTRUSTED WITH RESPONSIBILITIES OF ORGANIZING, COORDINATING AND PROMOTING CO-CURRICULAR ACTIVITIES IN THE UNIVERSITY AS WELL AS PREPARING THE STUDENTS FOR PARTICIPATION IN VARIOUS INTER-UNIVERSITY COMPETITIONS OUTSIDE THE CAMPUS.

























RESIDENTIAL ACCOMODATION

SINDH AGRICULUTRE UNIVERSITY, TANDOJAM IS PRIMARILY A RESIDENTIAL CAMPUS WITH AN ACCOMMODATION CAPACITY OF 1654 STUDENTS IN 13 HOSTELS INCLUDING ONE HOSTEL EACH FOR POSTGRADUATE STUDENTS AND FOR GIRL STUDENTS. EVERY HOSTEL HAS A TV LOUNGE, COMMON ROOM, WATER COOLER, TELEPHONE, INTERNET AND KITCHEN FACILITIES. THERE IS A COMMON SWIMMING POOL, A GYMKHANA, HOSTEL CANTEEN, BADMINTON AND TENNIS COURTS AND FACILITIES FOR TABLE TENNIS AND OTHER INDOOR GAMES ON RESIDENTIAL CAMPUS. THE UNIVERSITY STADIUM WITH A NUMBER OF LUSH GREEN PLAYGROUNDS PRESENT A PICTURESQUE VIEW OF THE CAMPUS. BESIDES, A BEAUTIFULLY CONSTRUCTED MOSQUE IS SITUATED IN THE CENTRE OF THE HOSTELS. THE STUDENTS ARE CHARGED FOR HOSTEL ACCOMMODATION AND RELATED FACILITIES EXCEPT BOARDING CHARGES WHICH IS THE SOLE RESPONSIBILITY OF STUDENTS THEMSELVES.









Conditions for Allotment of Accommodation in the Hostel:

- Allotment in the hostel shall not be claimed as a matter of right even when a person
- Is a bonafide student of this Institution.
- Allotment in the hostel will be considered only after the hostel administration has satisfied
- Itself of the merit, eligibility of the student, and that his/her stay to the hostel shall in no
- Way be prejudicial to the interests of the other residents of hostels in particular and the
- University in general.
- Allotment to a hostel will be on an academic year basis (Two terms). After that the allotment automatically
- Stands cancelled. Fresh applications will be invited for the next academic year.



Dr. Abdul Wahid Baloch Director Student Affairs awbaloch@sau.edu.pk



Dr. Khadim Hussain Wagan Hostel Provost khwagan@sau.edu.pk +92300-3247926

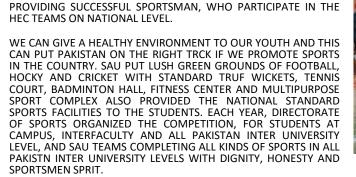


SPORTS









PROTOCOL AND RESPECT WHEREEVER THEY GO. THE STUDENTS OF SAU ARE ACTIVELY PARTICIPATING IN THE UNIVERSITY COMPETITION AT INTER FACULTY LEVEL AS WELL AS ALL PAKISTAN INTER UNIVERSITY CHAMPIONSHIP. SAU HAS HONOR OF













Bank & Cafeteria

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Directorate of University Advancement & Financial Assistance (UA & FA)

The **Directorate of University Advancement & Financial Assistance** was established in July 2010 to manage its own financial problems through social networking, alumni relations, endowment fund, scholarship, project formulation and execution. The directorate is also responsible for developing strategic and operational plans of the University and for providing financial assistance to students The Directorate comprises of three sections viz. University Advancement, Financial Assistance, and Career Services. Each of the three sections is headed by Additional Director as under.

1. Director University Advancement & Financial Assistance:

Dr. M. Ismail Kumbhar

2. Additional Director (University Advancement): Mr. Ali Asghar Bhatti

3. Focal Person (Scholarships)

Syed Nouman Ali Shah

4. Assistant Manager (Human Resource):

Mr. Abdul Salam Chandio

5. Assistant Director (Student Counseling & Placement Center):

Ms. Shabana Memon

6. Superintendent:

Mr. Shehzad Essani

7. Incharge Data Management Cell (IDMC):

Mr. Asim Humayoon

The Directorate has also established a **Data Management Cell** to develop and maintain **SAU Alumni Database** and other university data.

In order to advance the cause of the university through this Directorate, and to establish effective linkages with stakeholders and various institutions / organizations, number of MoU's have been signed with different organizations viz. South China Agricultural University, China), Nanjing Agricultural University, China, Australia-Pakistan Agriculture Sector Linkages Program (ASLP) for participation in the ASLP Mango Production Project, ASLP Mango Value Chain

Project and ASLP Social Research Project, USAID-supported Agribusiness Support Fund (ASF), Consortium of Universities for Pakistan Aquaculture and Fisheries, Monsanto (USA), Global Disaster Relief Organization (GRDO), National Bio saline Agriculture Program, Ministry of Food Security & Research, Department of Parasitology, University of Agriculture, Faisalabad (UAF), Pakistan Science Foundation (PSF), TASSCO Seed Corporation, Central Veterinary Diagnostic Laboratory (CVDL), Government of Sindh, YES Network Pakistan for Youth Social Entrepreneurship, The Promotion of Education in Pakistan (PEP) Foundation, USA, AAK Research Fellowship Program in Agricultural Economics, Pakistan Fruit & Vegetable, Exporters, Importers and Merchants Association (PFVA), Research Development Foundation (RDF), Sindh Rural Partner Organization (SRPO), Yangling Vien Non-Grain Energy development Co. Ltd, Department of Animal Breeding, Department of Livestock & Fisheries Government of Sind, Indus University Karachi, German -Pakistan Scientific Cooperation "KAZE", Center for Physiology and Pathophysiology, University ZuKlon, Germany , Sindh Agricultural & Forestry Workers Coordinating Organization (SAFWCO), U.S. Pakistan Center of Advanced Studies in Water, Mehran University of Engineering & Technology (MUET), Jamshoro, Sindh, Tropical Crops Genetic Resources Institute, Chinese Academy of Tropical Agricultural Sciences (For the Establishment of the Sino-Pakistan Bilateral Cooperation on Tropical Crops), Dalda Foods Limited (DFL) Pvt Ltd, Pakistan Standard and Quality Control Authority (PSQCA), Water and Power Development Authority (WAPDA), Lahore, Sindh Agriculture Growth Project (SAGP) World Bank project, Sindh Madressatul Islam University, Karachi, German-Pakistan Scientific Cooperation "KAZE2", Institute for Neurophysiology, University of Cologne, Germany, XINJIANG Institute of Ecology and Geography, China & Thar Foundation, Pakistan Transparency International Pakistan, World Wide Fund for Nature-Pakistan (WWF-Pakistan), Pakistan Agriculture Research Council (PARC) Islamabad, International Livestock Research Institute (ILRI) Nairobi Kenya, University of Canberra Australia etc.

One of the key functions of this Directorate is to generate funds for university development and for student scholarships. Among other things, the Directorate

is vigorously pursuing social networking and community services such as Alumni Registration and Networking, Alumni Events, Youth Entrepreneurship Trainings, Career Services, Career Orientation Workshops, Youth Convention, Job Fair, Farmer Gatherings, Farmers Festivals and National Conference on Agriculture & Livestock, and Farmers programs Outreach Besides this the Directorate has organized twelve (12) Indigenous On-campus Training (IOT) for SAU officers, Employees, Security Guards, Sanitary Workers and Gardeners, and Five Farmers Desks have also been established in each faculty to provide farmers technical and professional advice, support and information.

Financial Assistance (Student Scholarships)

The Directorate is also managing student scholarship programs for needy and meritorious students viz. PAK-USAID Merit and Need Based Scholarship (USMNBS), HEC Need Based Scholarships, Student Advancement Fund Endowment (SAFE), Akhlaq Ahmed Khan (AAK) Endowment Fund, Professional Education Foundation (PEF), Pakistan–Scottish Scholarship (UK) and many other scholarship programs. Besides, the university has established "SAU Endowment Fund" and "SAU Scholarship Endowment Fund" to support university advancement programs and eventually provide scholarships to needy students as well. The Alumni of this university are taking keen interest in these programs and also participating in fundraising activities.

Career Services

Office of Career Services at Sindh Agriculture University (SAU) is primarily established to produce better employees and better employers using the potential of students and graduates of SAU. Office of Career Services helps the unemployed students and graduates to find jobs and provide with the skills and tools they need to advance within a government agency, corporation or organization.

The Office of Career Services provides impartial and confidential advice and treats all students with respect regardless of gender, religion, family status, disability, political persuasion, socio-economic background or any other factor. All students, whether existing or prospective, can expect to receive fair and equal treatment.

Objectives:

- To effectively improve students in behavior and skills necessary to seek and qualify for job.
- Inviting govt. officers, women entrepreneur and members of Federal, Provincial and progressive farmers & industrialist for interaction with students.
- Conduct workshop and seminars to encourage students toward public and private employment.
- Providing career counseling to students for career selection.
- Training session for skill enhancement of the students.
- To guide students choose further higher education in Pakistan or abroad in their study area with the help of Higher Education Commission (HEC).
- Developing and maintaining placement board for students.
- To act as medium of communication amongst students, industries and professionals bodies to promote career opportunities for students.

