

PROSPECTUS 2022



SINDH AGRICULTURE UNIVERSITY TANDOJAM



Vice Chancellor's Secretariat



PROSPECTUS 2022

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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 problem-oriented 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 moved 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 problem-oriented 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.



ADMINISTRATIVE/ACADEMIC HEADS

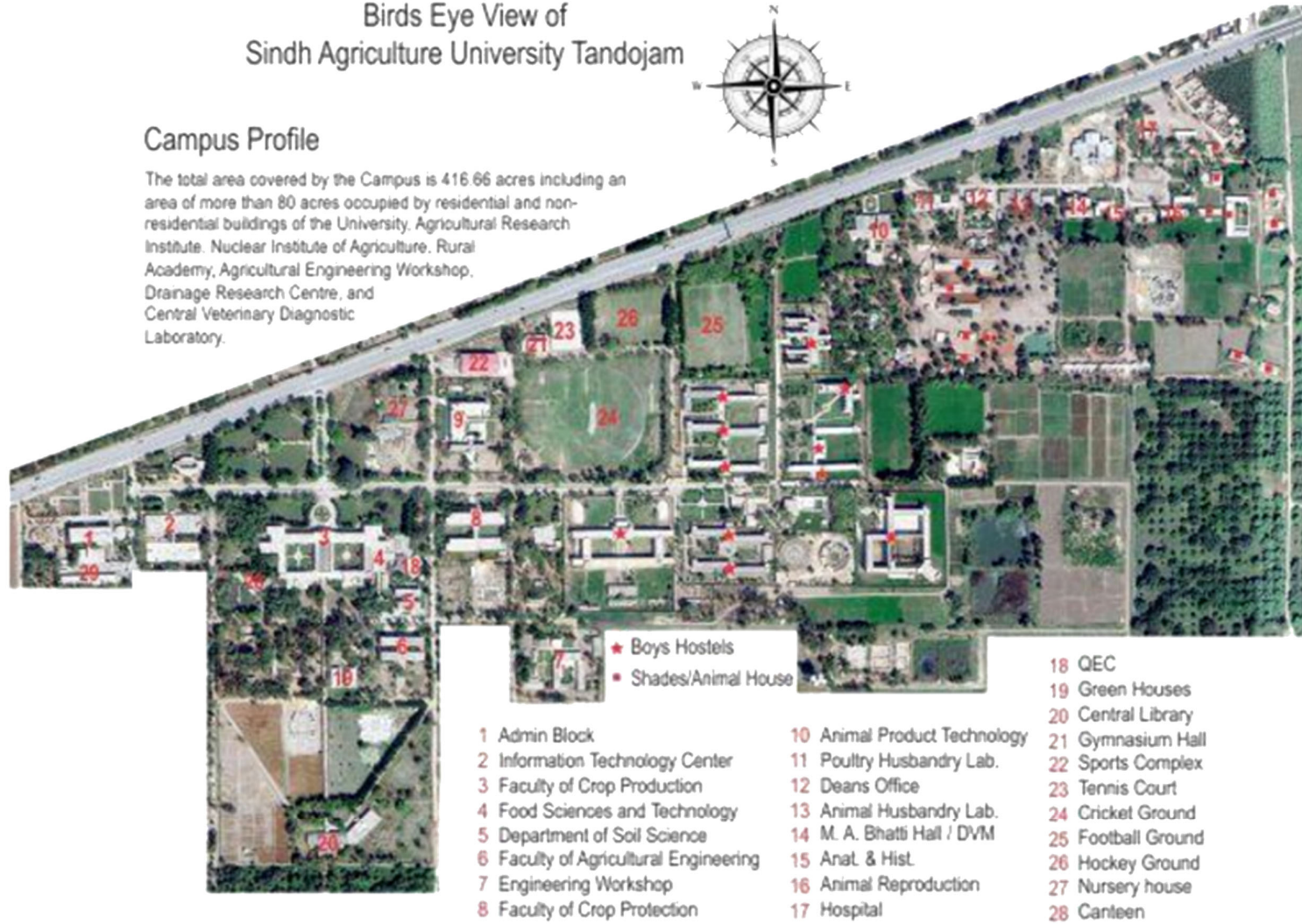
Syed Murad Ali Shah Chief Minister Sindh/Chancellor	Prof. Dr. Aijaz Hussain Soomro (PhD-UAAR-PK) Director, Institute of Food Sciences & Technology	Mr. Muhammad Ashraf Rustamani (MSc. -US-PK) Director Campus Security
Mr. Manzoor Hussain Wassan, Pro-Chancellor Advisor, Agriculture Department	Dr. Mir Sajjad Hussain Talpur (PhD-China) Director, Information Technology Centre	Prof. Dr. Zahoor Ahmed Soomro (PhD-SAU-PK) Director Seed Production & Development Centre
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. Jan Muhammad Mari, (PhD-SAU) Pro-Vice-Chancellor, SAU Campus, Umerkot	Prof. Dr. Tehmina Mangan (PhD-SAU) Director ORIC	Dr. Asadullah Mari (PhD-SAU) Director Students Affairs
Prof. Dr. Inayatullah Rajper (PhD-UK) Dean, Faculty of Crop Production	Prof. Dr. Muhammad Ismail Kumbhar (PhD-SAU-PK) Director, University Advancement & Financial Assistance	Dr. Muhammad Mithal Lund (PhD. -SAU) Director Planning & Development
Prof. Dr. Aijaz Ali Khooharo (PhD-SAU-PK) Dean, Faculty of Agricultural Social Sciences	Mr. Riasat Ali Kubar (ME-SAU-PK) Director QEC	Mr. Ghulam Hyder Joyo (MLS-US-PK) Librarian
Prof. Dr. S. Muhammad Ghiasuddin Rashdi (PhD-UAF-PK) Dean, Faculty of Animal Husbandry & Veterinary Sciences	Mr. Aneel Kumar (ICMAP) Director Finance	Dr. Faisal Ansari (MBBS-LUMHS-PK) I/C SAU Dispensary
Prof. Dr. Manzoor Ali Abro (PhD-France) Dean, Faculty of Crop Protection	Engr. Mumtaz Ali Jakhro (ME-SAU-PK) Director Farms	Mr. Manzoor Ali Magsi (BE-MUET-PK) Director Transport
Prof. Dr. Altaf Ali Siyal (PhD-UK) Dean, Faculty of Agricultural Engineering	Mr. Anwar Hussain Khanzada (MH Ped-US-PK) Director Sports	Mr. Suhrab Gul Thaheem I/C, Computerization and Networking Section
Prof. Dr. Zia-Ul-Hassan Shah (PhD-UAF-PK) Advisor (Planning & Development)	Mr. Ahmed Khan Mangi (MA-US-PK) Director Admissions	Mr. Salahuddin Shaikh (B. Com-US-PK) Resident Auditor
Prof. Dr. Sultan Maitlo (PhD-SAU) In-charge Principal Shaheed Z. A. Bhutto Agricultural College, Dokri	Engr. Riaz Ahmed Soomro (BE-MUET-PK) Project Director	Mr. Gulsher Lochi (MA-US-PK) Public Relation Officer
Dr. Syed Ali Raza Shah (PhD-SAU) In-charge Principal, KCAET, Khairpur Mir's	Mr. Manzoor Ali Lakhari (M.Sc.-US-PK) Controller of Examination	

Birds Eye View of Sindh Agriculture University Tandojam



Campus Profile

The total area covered by the Campus is 416.66 acres including an area of more than 80 acres occupied by residential and non-residential buildings of the University. Agricultural Research Institute, Nuclear Institute of Agriculture, Rural Academy, Agricultural Engineering Workshop, Drainage Research Centre, and Central Veterinary Diagnostic Laboratory.

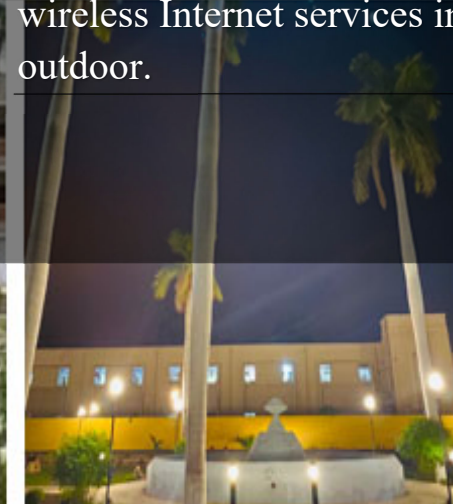




The University offers its students an ideal environment for academic excellence and professional growth. Life at its campus is conducive for advanced studies. Students are also provided with ample social avenues to refine their personalities and skills. The infrastructure is very well developed with modern buildings, well-equipped classrooms, and research labs. Wide pathways, green parks, first-class sports facilities. The university is among the few public sector universities where Smart University Project of the Higher Education Commission has been deployed successfully. The project has enabled us to experience and advanced Wi-Fi Technology across the campus, enabling Teachers and Students to freely access wireless Internet services indoor and outdoor.



Life @ Campus

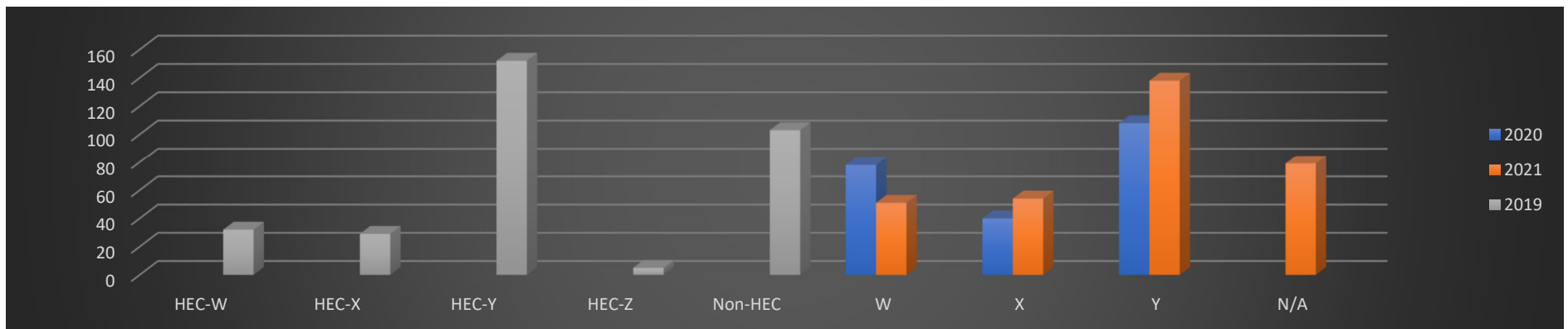


Academic Research

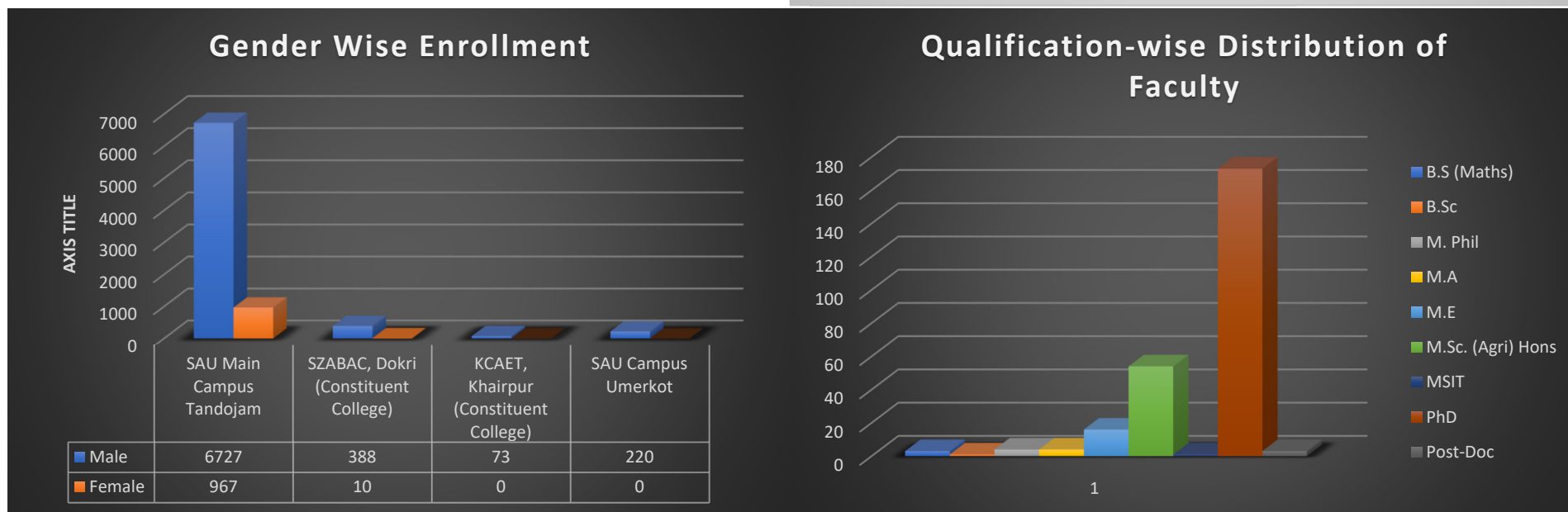
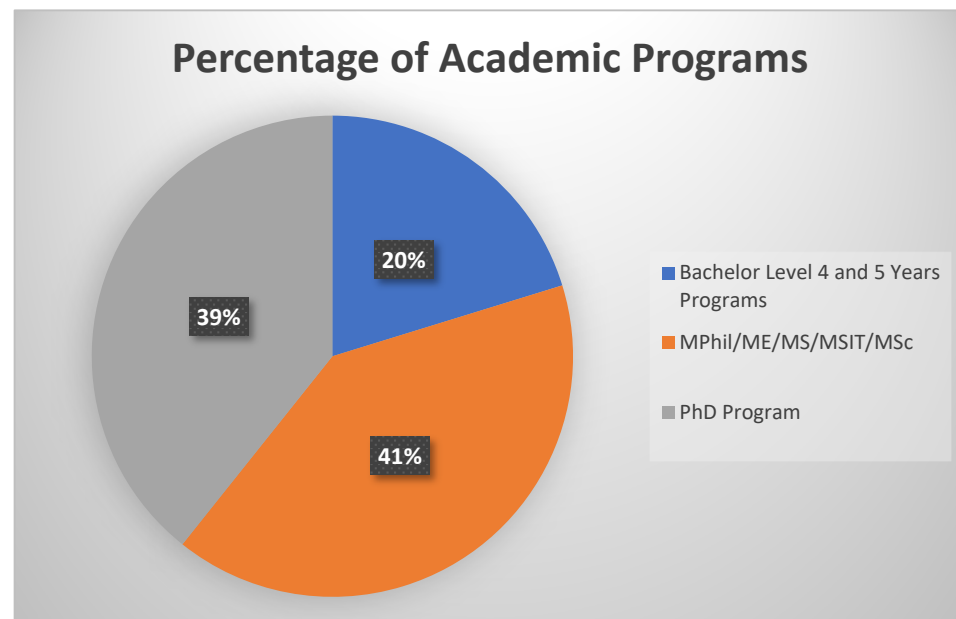
Promotion of research culture is one of the core strategic aims of the University. Besides providing state-of-the-art research lab facilities to its students, the University offers lucrative financial incentives to its productive faculty members for research projects and publications.

RESEARCH JOURNALS

- Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences (PJAAEVS)
- Monthly Sindh Zarai Science
- Journal of Journal as Frontiers in Agricultural Sciences and Technology (FAST)



The University is undergoing an extensive reform process aimed at enhancing the standard of its research and studies. The preliminary impact of reforms is already visible in the form of enhanced level applications through online admissions, diversity of qualified faculty composition, consolidation of academic programs at all levels, gender-wise distribution of student enrollment, so on and so forth.





Rules

Regulations

GRADUATE DEGREE PROGRAMS

The graduate degree programs are offered by all five faculties, Institutes, Constituent colleges, and SAU Campus at Umerkot. The Faculty of Agricultural Engineering offers degree of B.E. (Agriculture), BS in Environmental Sciences, and BS in Agro-Industrial Engineering Technology. A composite professional degree of Doctor of Veterinary Medicine (D.V.M.) and three BS program in Dairy Technology, Fisheries and Aqua Culture and Poultry Sciences are 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, Agribusiness Management, Rural Sociology, Applied Statistics, Agricultural Education & Extension, and English (Language & Literature) is offered by Faculty of Agricultural Social Sciences. The Information Technology Centre offers a four-year BS (Hons) in Information Technology, BS Computer Sciences & BS Software Engineering, besides diplomas and short trainings in various Information Technology disciplines. Moreover, Shaheed Zulfiqar Ali Bhutto Agricultural College (SZABAC) Dokri offer B.Sc. (Agri.) Hons in various discipline at par main campus, Khairpur College of Agricultural Engineering and Technology, Khairpur Mir's offers degree B.E. in Agricultural Engineering, B.Sc. (Hons) in Food Sciences and Technology, B.Sc. (Hons) in Biotechnology & BS Software Engineering and SAU Campus at Umerkot offer B.Sc. (Agri.) Hons, BS Information Technology, BS Software Engineering and BS English (Language and Literature)

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 the 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 to degree programs of their choice depending upon the availability of seats and other related factors. The center is also responsible for fetching jobs for 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 seeking admission to this university, accommodation, local problems, visa facilities, etc.

BANK

A full-fledged branch of Habib Bank Limited is situated adjacent to the 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 at this university and to the youth of the province of Sindh in general. More than 100 of the 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 the 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 modern technical know-how to the farmers to boost 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 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 for 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 wholeheartedly 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.
 - Extending cooperation and response to the teachers 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 wholeheartedly 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 in activities promoting / invoking violence or hatred or contempt.
 - Indulging in the 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 fouls 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 an 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 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 should follow the rules and regulations framed by the University for Administration of University hostels from time to time.
- That he / she shall not allow any guests in the 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.

GROUPS 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 penalty on the student.

- Misconduct
- Committing 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 of 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.

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- 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.

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- The Discipline Committee may, if necessary, grant time till the 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 proceedings 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:

- i. "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 at least two contact hours in Practical per week.
- iv. "Credit Course" means a course of study to be completed as a requirement for a degree.

- v. "Semester" means a period of 22 weeks duration including examination.
- vi. "Semester Examination" means the Mid plus (+) Final Examinations held during each semester.
- vii. "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.
- x. "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
<ul style="list-style-type: none"> • Rural Sociology • Statistics • Agricultural Economics • Agricultural Education & Extension • Agronomy • Biotechnology • Crop Physiology • Horticulture 		

<ul style="list-style-type: none"> • Plant Breeding & Genetics • Soil Science • Entomology • Plant Pathology • Plant Protection 		
B. Sc. (Hons.) in	136 to 140	8 Semesters
<ul style="list-style-type: none"> • 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		
BS in	136-140	8 Semesters
Dairy Sciences		
Fisheries and Aqua Culture		
Poultry Sciences		
Software Engineering		
Computer Science		
Environmental Sciences		
Agro-Industrial Engineering Technology		
BS English (Language & Literature)		

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 the 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

Please see admission policy on page <https://sau.edu.pk/undergraduate>

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,

1. The Teacher / Examiner shall set the Question paper from full syllabus of the course in the Final Examination.
2. The paper shall contain at least 40% objective and 60% descriptive type questions.
3. 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 the objective type of section.

8.2. Eligibility for Appearing in the Examination

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

- i. 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 in 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 cards of the University will serve as admit card. A 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	B	
56-59	2.67	B ⁻	
53-55	2.33	C ⁺	Satisfactory
50-52	2.00	C	
46-49	1.67	C ⁻	Below average
43-45	1.33	D ⁺	
40-42	1.00	D	Pass
<40	0.00	F	Fail

Explanation 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 \geq but secured less and / or failed in some subjects. He / She will be promoted 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 = $\frac{\sum Q. P}{\sum C. H}$

$\sum C. H$

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.
- 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.
- Students 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.
- 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.
- 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 the 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 reason, 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 i.e., 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 must seek fresh admission in the next semester in the same class as explained here under.
 - a. If a student fails to meet minimum attendance requirement during the first semester, he / she will not be allowed to appear in the first semester examination. He / She must 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 for 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

- i. 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.
- ii. 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.

1. 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).

2. DECLARATION OF POSITION

Following Regulations will apply for the declaration of positions:

- i. 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 a 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 a regular basis.
- iii. 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 the 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.

3. 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.

4. AWARD OF MEDALS

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

- i. The Medals will be awarded to those who secure First or Second positions as per qualifying criteria on an 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.

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- 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.

5. 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.

6. 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.

- i. 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 corrections 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.

7. 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.

FACULTY OF CROP PRODUCTION



FACULTY OF CROP PRODUCTION

The Faculty of Crop Production emerged because of the 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 the 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 Tarqati 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 and Registration Department (FSCRD), 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.

GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
IS/EB-301	Islamic Studies / Ethics (Optional for Non-Muslim)	2 (2+0)
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-II		
AGEC-302	Introduction to Economics and Agriculture 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)
AGR-302	Field Crop Production-I	3 (2+1)
AEE-302	Introduction to Agriculture Extension and Education	2 (2+0)
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-II	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

1. 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:

2. Disseminate knowledge and skills to students and those involved in crop production.
3. Identify technical and socio-economic issue areas constraining farm productivity and find solutions to overcome these problems.
4. 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 Memon	M.Sc. (Agri.) Hons	Assistant Professor
Bakht-u-Nisa Mangan	PhD (China)	Assistant Professor
GENERAL COURSES OFFERED FOR B.Sc. (Agri.) Hons.		
CODE	TITLE OF COURSE	C. HRS.

SEMESTER-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 Spices	3 (2+1)
SUPT-611	Environment and Crop Production	3 (2+1)
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 BIOTECHNOLOGY

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

1. To impart quality education, research, innovation, and technology-based training.
2. To promote and strengthen the area of agricultural biotechnology.
3. To develop and apply the basic knowledge of biotechnology for efficient management of environmentally sound and liberal agriculture.
4. 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		
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 & Instrumentation	3 (2+1)
STAT-511	Elementary Statistics	3 (2+1)
SEMESTER-VI		
BT-502	Metabolism-II	3 (2+1)
BT-504	Molecular Biology-II	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-VII		
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 Biotechnologists	3 (3+0)
SUPT-611	Plant Biotechnology	3 (2+1)
SEMESTER-VIII		
BT-602	Metabolomics, Proteomics & Genomics	2 (2+0)
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

1. 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.
3. 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.

5. 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 Leghari	PhD (SAU)	Professor
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		
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-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, technological, and environmental 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 67 years, the department has produced about 1000 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. The Department currently has 06 research projects funded by different funding agencies, these projects involve research associates and students' side by

side teachers. The objective of these is improvement in genetic architecture of onion, rice, chickpea, wheat etc. through conventional plant breeding techniques.

OBJECTIVES

1. 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:
2. Impart academic and research training at under-graduate, graduate, and post-graduate levels in the field of Plant Breeding and Genetics.
3. Plan and undertake basic and applied research on cereals and other major crops.
4. Produce quality seed of wheat, cotton, and vegetable crops for distribution to farmers of Sindh province.
5. Establish linkages with provincial, national, and international research and educational organizations to undertake collaborative assignments.
6. 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 Soomro	PhD (SAU)	Professor
Munaiza Baloch	PhD (SAU)	Professor
Shabana Memon	PhD (China)	Associate Professor
Wajid Ali Jatoti	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
Asgar 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.
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	3 (2+1)
CP-510	General Biochemistry	3 (2+1)
SEMESTER-VII		
PBG-601	Breeding of Cereal Crops	3 (2+1)
PBG-603	Breeding of Pulse Crops	3 (2+1)
PBG-605	Breeding of Fodder and Forage Crops	3 (2+1)
PBG-607	Experimentation in Plant Breeding	3 (2+1)
SUPT-611	Principles of Plant Breeding	3 (2+1)
SEMESTER-VIII		
PBG-602	Breeding of Sugar Crops	2 (1+1)
PBG-604	Breeding of Fibre Crops	3 (2+1)
PBG-606	Biodiversity and Plant Genetic Resources	3 (2+1)
PBG-10	Internship and Report Writing	4 (0+4)

DEPARTMENT OF CROP PHYSIOLOGY

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 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

1. 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:
2. Impart quality education at undergraduate & postgraduate level in crop physiology.
3. 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.
4. 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

Mehar-un-Nisa Narejo PhD (Malaysia) Associate Professor & Chairperson

M. Ibrahim Keerio	PhD (UK)	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.
SEMESTER-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)
SEMESTER-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:

1. 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.
3. Study the interaction between soil, water, plant, and chemicals (both organic and inorganic) for better crop growth & yield.
4. Improve methods that are used in soil, plant, water, and fertilizer analyses.

ACADEMIC STAFF

Mehrunisa Memon	PhD (Germany)	Professor & Chairperson
Allah Wadhayo Gandahi	PhD (SAU)	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)
SS-505	Soil Fertility and Fertilizer Use	(2+1)
SS-507	Instrumentation & Laboratory Techniques	(2+1)
SS-509	Soil Genesis & Morphology	(2+1)

STAT -511	Elementary Statistics	(2+1)
SEMESTER-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)
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)

INSTITUTE OF FOOD SCIENCE & TECHNOLOGY



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 quality education and research in food science and relevant fields. At present, the Institute offers four years B.Sc. (Hons.), two years M.Sc. (Hons.) and three years Ph.D. degree programs 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 providing 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 to contribute in food productivity and safety and secure livelihoods through sustainable value addition & natural resources management.

OBJECTIVES

1. To impart quality education to train manpower in the field of Food Sciences and Technology to meet the demand of growers & food industries.
2. To conduct research on various aspects of Food Sciences and Technology including food processing, preservation, value addition, food safety and quality management.
3. To train rural masses for poverty alleviation.
4. To develop post-harvest technologies to reduce wastage in fruits and vegetables.

FACILITIES

The Institute of Food Sciences & Technology has seven hi-tech laboratories viz. Food Analysis, Bakery Technology, Food Microbiology, New Food Product Development, Cereal Technology and Drying & Dehydration. These are well equipped laboratories

with advanced and other commonly used processing and analysis equipment. In addition to this, the Institute has beverage unit, juice treatment plant and 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. The Institute has also established food products display center where daily fresh bakery products are available at much cheaper rates. The Institute has strong linkages with different food industries such as National Foods Karachi, Wazir Ali Oil Industries, Dawn Bread Hyderabad, Laseefa Foods 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 offer post graduate programs 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 Food Authority, 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 9001-2015).

ACADEMIC STAFF		
Aijaz Hussain Soomro	PhD (UAAR)	Professor & Director
Tahseen Fatima Miano	PhD (Turkey)	Assistant Professor
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 Information Technology	2 (1+1)
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 Management	3 (2+1)
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-VI		
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-VII		
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



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-301	Functional Mathematics / Biology	3 (3+0)
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 Economics	(3+0)
CP-302	Introductory Crop Physiology	(2+1)
IS/EB-302	Islamic Studies / Ethics (Optional for Non-Muslim Students)	(2+0)
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 & Education	(2+0)
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	PhD (SAU)	Assistant Professor
Arfan Ahmed Gilal	PhD Malaysia	Assistant Professor
Fahad Nazir Khoso	PhD Malaysia	Assistant Professor
Agha Mushtaque Ahmed	PhD Malaysia	Assistant Professor
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.
SEMESTER-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)

SEMESTER-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)
SEMESTER-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

The Department of Plant Pathology has a long and distinguished history, due to its importance for increasing 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)	Assistant Professor (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 Pathology	(2+1)
SEMESTER-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)
SEMESTER-VII		
PP-601	Diseases of Fruits and Ornamentals	(2+1)
PP-603	Beneficial Microorganisms for Sustainable Agriculture	(2+1)
PP-605	Plant Disease Epidemiology	(2+1)
PP-607	Introductory Molecular Plant Pathology	(2+1)
PP-611	Beneficial Microorganisms for Sustainable Agriculture (For Non-Major)	(2+1)
SEMESTER-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 micro-organisms) 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

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
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)
PPT-511	Introduction to Weeds & Phanerogamic Parasites	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)
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

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). Department of English is going to offer BS (Hons.) in English (Language & Literature) from this year. 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 Tarqati 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-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-II		
HORT-302	Introductory Horticulture	3 (2+1)
PP-302	Introduction to Plant Pathology	3 (2+1)
AgEc-302	Introduction to Economics & Agricultural Economics	3 (3+0)
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 the 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
Sanaullah Noonari	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-III	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.
SEMESTER-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)
SEMESTER-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)

SEMESTER-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

COURSES OFFERED FOR B.Sc. (Agri.) Hons. AGRICULTURAL EDUCATION AND EXTENSION

CODE	TITLE OF COURSE	C. HRS.
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)
SEMESTER-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-II	Elective	(2+1)
SEMESTER-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-III	Elective	(2+1)
SEMESTER-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 Javed 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.
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SEMESTER-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)
SEMESTER-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-III	Elective	3 (2+1)
SEMESTER-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-I	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-II	3 (2+1)
STAT-506	Sampling Techniques-I	3 (2+1)
STAT-508	Econometrics	3 (2+1)
Elective-II	Elective	3 (2+1)
SEMESTER-VII		
STAT-601	Design & Analysis of Experiments-I	3 (2+1)
STAT-603	Sampling Techniques-II	3 (2+1)
STAT-605	Categorical Data Analysis	3 (2+1)
STAT-609	Linear Models	3 (2+1)
Elective-III	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

Abdul Munaim Brohi	Shahada-tul-Almia	Assistant Professor & Incharge Chairman
Munawaruddin Sahito	M.A.	Assistant Professor
Faqir Muhammad Hub	M.Sc. (QAU)	Assistant Professor

GENERAL COURSES OFFERED FOR (B.Sc. / B.E. / DVM)

CODE	TITLE OF COURSE	HRS.
SEMESTER-I		
IS-301	Islamic Studies OR Ethical Behavior (Optional for Non-Muslim Students) (CPD, CPT, FASS, IT, FAE)	(2+0)
PS-301	Pakistan Study (FAHVS)	(1+0)
PS 313	Pakistan Studies (IFST)	(2+0)
SEMESTER-II		
PS 302	Pakistan Studies	(2+0)
IS 316	Islamic Studies (IFST)	(1+1)
SEMESTER-III		
IS-401	Islamic Studies or Ethics (For Non-Muslims) (FAHVS)	(1+0)
PS 401	Pakistan Study (IT)	(2+0)
SEMESTER-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 at 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. Department of English is going to offer BS (Hons.) in English (Language & Literature) from this year.

ACADEMIC STAFF		
Shabana Sartaj Tunio	PhD. (Malaysia)	Associate Professor & Chairperson
Amin M. Soomro	M.A. (US)	Assistant Professor
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 (FASS, FCPD, FCPT)	(2+0)
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		
ENG-606	Scientific Report Writing (FASS)	(2+0)
ENG-402	Functional English II (IFST)	(2+0)

COURSES OFFERED FOR BS. (Hons) IN ENGLISH (LANGUAGE & LITERATURE)		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
ENG-301	English-I: Reading and Writing Skills	(3+0)
ENG-303	Introduction to Linguistics	(3+0)
ENG-305	Introduction to Literature	(3+0)
ENG-307	Study Skills	(3+0)
PS-301	Pakistan Studies	(2+0)
SEMESTER-II		
ENG-302	English-II Composition Writing	(3+0)
ENG-304	Phonetics & Phonology	(3+0)
ENG-306	Literary Forms & Movements	(3+0)
MATH-302	Functional Mathematics	(3+0)
IS-302	Islamic Studies/Ethics	(2+1)
RS-302	Introduction to Rural Sociology	(3+0)
SEMESTER-III		
ENG-401	English-III Communication & Presentation Skills	(3+0)
ENG-403	Introduction to Morphology	(3+0)

ENG-405	Short Fictional Narratives	(3+0)
ENG-407	Pakistani English	(3+0)
ENG-409	Classical & Renaissance Drama	(3+0)
RS-401	Gender Studies	(3+0)
SEMESTER-IV		
ENG-402	English IV-Academic Reading & Writing	(3+0)
ENG-404	Introduction to Syntax	(3+0)
ENG-406	Introduction to Semantics & Pragmatics	(3+0)
ENG-410	Rise of Novel (18th to 19th century)	(3+0)
ENG-412	Philosophy of Language & Literature	(3+0)
AES-402	Human Resource Management	(3+0)
SEMESTER-V		
ENG-501	Discourse Analysis	(3+0)
ENG-503	Sociolinguistics	(3+0)
ENG-505	American Literature	(3+0)
ENG-507	Female Writers in English Literature	(3+0)
RS-501	Introduction to Environmental Sociology	(2+1)
PS-501	International Relations	(3+0)
SEMESTER-VI		
ENG-502	Romantic and Victorian Poetry	(3+0)
ENG-504	Modern Literature (Drama & novel)	(3+0)
ENG-506	World Englishes	(3+0)
ENG-508	Second Language Acquisition	(3+0)
ENG-510	English Language Teaching & Pedagogy	(3+0)
ENG-512	Global Poetry	(3+0)

SEMESTER-VII		
ENG-601	English for Specific Purposes	(3+0)
ENG-603	Translation Studies	(3+0)
ENG-605	Introduction to Applied Linguistics	(3+0)
ENG-607	Classical Poetry	(3+0)
ENG-609	Literary Criticism and Theory	(3+0)
SEMESTER-VIII		
ENG-602	Language & Education	(3+0)
ENG-604	Postcolonial Literature	(3+0)
ENG-606	Pakistani Literature in English	(3+0)
ENG-608	Research Methods	(3+0)
ENG-610	Final Research Project (Final Thesis)	(3+0)

INFORMATION TECHNOLOGY CENTER



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 for the province of Sindh to face the emerging challenges of the new millennium related to Information Technology in order to produce high quality 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 main objective of the establishment of Information Technology Centre at Sindh Agriculture University Tandojam is to offer a modern IT education along with market-oriented syllabus. A unique academic environment will be provided to the students which prepares them to become successful professionals in a modern world dominated by IT.

Tremendous progress in information technology has been done over the years in all spheres of life including agriculture. For Sindh Agriculture University Tandojam, IT progress provides new opportunities to improve the living standards of rural people through education of IT based technologies by exploiting advances in information technology such as hardware, software, and networking. Develop skilled graduates to take responsibility of organization-wide computing and information systems in which people can effectively use and apply information technology in fulfilling the mission of Sindh Agriculture University Tandojam.

The Centre has eight air-conditioned and well-equipped computer laboratories with the latest computer hardware and software facilities, including audiovisual equipment 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 students. 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. All 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 is 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 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, national, and international levels for the purpose of education and information dissemination with a capacity of more than 60 persons.

JOB OPPORTUNITIES

There are several opportunities for the IT graduates these days. Many public and private sector organizations are offering different jobs to them. The job sector is very wide for the IT profession such as:

- Web Engineers
- Data Communication Analyst
- Network System Analyst
- Software Engineer
- Computer Programmer
- Technical support specialist
- Computer System Administrator
- Database Administrators

ACADEMIC STAFF

Dr. Mir Sajjad Hussain Talpur	PhD (China)	Associate Professor & Director ITC
Dr. Mubina Pathan	PhD (Malaysia)	Associate Professor
Dr. Mukhtiar Memon	PhD (Austria)	Associate Professor
Dr. Pinial Khan Butt	PhD (China)	Associate Professor
Dr. Erum Saba Chang	PhD (MUET)	Assistant Professor
Dr. Kavita Tabassum	PhD (MUET)	Assistant Professor
Ms. Farah Naveen	MSIT (SAU)	Assistant Professor
Egnr. Irfan Ali Shahani	MSIT (MAJU))	Assistant Professor
Ms. Saima Shaikh	MSIT (SAU)	Assistant Professor
Dr. Suhni Abbasi	PhD (ISRA)	Assistant Professor

Dr. Zulfikar Ahmed Maher	PhD (Malaysia)	Assistant Professor (on Adhoc)
Dr. Muhammad Yaqoob Koondhar	PhD (Malaysia)	Assistant Professor (on Adhoc)
Ms. Saima Tunio	MSIT (ISRA)	Lecturer
Mr. Noor Nabi Dahri	MSIT (SAU)	Lecturer

COURSES OFFERED FOR BS(IT) Hons.

CODE	TITLE OF COURSE	HRS.
SEMESTER-I		
ITC-301	Fundamentals of Information and Communication Technologies (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-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- 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- 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



FACULTY OF AGRICULTURAL ENGINEERING

The faculty of Agricultural Engineering is one of the five faculties of Sindh Agriculture University Tandojam. It started as a department of Agricultural Engineering of the defunct Sindh Agriculture College Tandojam in 1955. The department was then upgraded into a full-fledged Faculty of Agricultural Engineering in 1977. Faculty has played a leading role in providing engineering solutions to agricultural problems. It imparts quality education in Agricultural Engineering to provide cutting-edge solutions to issues related to the agriculture of Pakistan and the world. Its primary goal is to take a leading role in the promotion of technological changes and their management for sustainable agricultural development through innovative quality education, research, and outreach activities by integrating technology, planning, and management. The dissemination of quality education, research, and training with special emphasis on the interdisciplinary interface among the technological and educational expertise is the focus of the faculty.

At present, the faculty offers a four-year Bachelor of Engineering in Agriculture [B.E. (AGR)], Bachelor of Science in Environmental Sciences [BS (ENVSC)], and Bachelor of Science in Agro-Industrial Engineering Technology [BS (AIET)] degree programs.

BACHELOR OF AGRICULTURAL ENGINEERING [B.E. (AGR)]

The program provides a fundamental understanding of the natural, basic, and engineering sciences and their application to design devices and processes in agriculture-related areas. A permutation of courses caters to the design and engineering aspects of 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., and Ph.D. 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 B.E. (AGR) degree is jointly by the following six integral departments:

- 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 Registered / Professional Engineers. The B.E. (AGR) degree holders are eligible to be appointed as Professional Engineers in engineering-related fields. They can undertake any professional engineering task in the field of Agricultural Engineering.

MISSION STATEMENTS

- The mission of the faculty is to strive for excellence in education, research, and outreach in the agricultural sector for sustainable development.
- The mission of the program is to train and equip the students with engineering skills, tools, and techniques so that they be capable of resolving agriculture-related issues for food security and strive for excellence in education and research in the agricultural sector for local and global sustainable development

The faculty enhances students' knowledge and skills in Agricultural Engineering by providing professional and academic training in Irrigation & Drainage Engineering, Land & Water Management, Mechanization & Farm Machinery, Post-Harvest Technology, Farm Structures, and Environmental Engineering.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The PEOs of B.E. (AGR) Program are as under

PEO1: The graduates are expected to exhibit an in-depth knowledge of engineering principles, the application of modern tools, and the latest

technologies with appropriate skills and attitudes to investigate and resolve agricultural engineering-related issues.

PEO2: The graduates are expected to develop skills to work independently as well as in diverse teams to provide novel solutions to agriculture-related problems and effectively communicate the results to the stakeholders.

PEO3: The graduates are expected to undertake professional practice considering social, ethical, and environmental boundaries within which engineering is practiced both locally and globally.

PEO4: The graduates are expected to execute and manage teamwork, interpersonal skills, perpetual learning, and professional growth.

The twelve graduate attributes provided by the PEC in the manual of Accreditation 2019 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. (AGR) 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 Taraqati 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.

DEPARTMENT OF IRRIGATION AND DRAINAGE

The reliable water supplies for irrigated agriculture are instrumental in feeding the growing population in 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 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 into ensuring water supplies for irrigated agriculture, industry, and domestic purposes. During the 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 the 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 the undergraduate level. 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 the vision and skills of graduate and postgraduate professionals with distinction in the field of irrigation, drainage, soil, and water resources engineering. We aim to produce young, generous, highly motivated, and talented professional engineers who uphold and advance their profession's integrity, honor, dignity, and development. 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 a 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.

ACADEMIC STAFF		
Engr. Mashooque Ali Talpur	Ph.D. (China)	Associate Professor & Chairman
Engr. Irfan Ahmed Shaikh	Ph.D. (Malaysia)	Associate Professor & PG Coordinator
Engr. Rajesh Kumar Soothar	Ph.D. (China)	Assistant Professor & PG Coordinator
Engr. Muhammad Uris Mirjat	Ph.D. (SAU)	Assistant Professor

COURSES OFFERED FOR B.E. (AGR)

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-II		
ID-108	Soil Mechanics	3 (2+1)
SEMESTER-III		
ID-205	Engineering Hydrology	3 (2+1)
SEMESTER-IV		
ID-206	Fluid Mechanics	3 (2+1)
SEMESTER -V		
ID-305	Open Channel Hydraulics	3 (2+1)
SEMESTER-VI		
ID-306	Pumps and Tube wells	2 (1+1)
SEMESTER-VII		
ID-403	Irrigation Engineering	3 (2+1)
AE-411	Final Year Design Project (FYDP)-I	3 (0 - 3)

SEMESTER-VIII

ID-402	Drainage Engineering	3 (2+1)
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

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. (AGR) and B.E. (Mech.) degrees. The department has highly qualified faculty members. It has modern and well-equipped laboratories and a workshop. Besides teaching and research, the department provides advisory services to farmers and offers short trainings on various aspects of farm mechanization and machinery 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 the graduate and postgraduate levels. The department has a well-equipped Agricultural Engineering Workshop, Machinery Hall, Power Units Garage, Mechanical and Electronics Laboratories, Drawing & Design Laboratory, Machine Shop, Welding, and smithy Shops.

ACADEMIC STAFF

Engr. Ahmed Ali Tagar	Ph.D. (China)	Associate Professor & Chairman
Engr. Farman Ali Chandio	Ph.D. (China)	Associate Professor
Engr. Ameet Kumar	M.E. (SAU)	Assistant Professor
Engr. Abdul Sattar Mashori	M.E. (SAU)	Assistant Professor
Engr. Muhammad Sohail Memon	Ph.D.	Assistant Professor

COURSES OFFERED FOR B.E. (AGR)

CODE	TITLE OF COURSE	C. HRS.
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SEMESTER-I		
FPM-105	Metallurgy and Workshop Practices	3 (2+1)
SEMESTER-II		
FPM-106	Engineering Drawing and Graphics	2 (1+1)
SEMESTER-III		
FPM-203	Applied Thermodynamics	2 (1+1)
SEMESTER-IV		
FPM-204	IC Engines and Tractors	3 (2+1)
SEMESTER-V		
FPM-303	Machine Design	3 (2+1)
SEMESTER-VI		
FPM-302	Farm Machinery and Automation	3 (2+1)
FPM-304	Instrumentation and Control	2 (1+1)
SEMESTER-VII		
FPM-401	Earth Moving Machinery	3 (2+1)
AE-411	Final Year Design Project (FYDP)-I	3(0 - 3)
SEMESTER-VIII		
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

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 a threat to the sustainability of agriculture and the environment. So far, in Pakistan, enormous sums of money have been spent on the planning, design, construction, and maintenance of farm irrigation systems, but many have 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, the Department of Land and Water Management was established in December 1985 in the Faculty of Agricultural Engineering 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 a wide range of subjects and research to enhance the productivity of land and water resources to meet future demands of food and fiber. In addition, the department also provides trainings and advisory services 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 a well-equipped Lab with the latest equipment used for land surveying and leveling, soil and water testing, and watercourse design and construction.

ACADEMIC STAFF		
Engr. Munir Ahmed Mangrio	Ph.D. (SAU)	Professor & Chairman
Engr. Altaf Ali Siyal	Ph.D. (UK)	Professor & Dean
Engr. Abdul Ghafoor Siyal	Ph.D. (Malaysia)	Professor
Engr. Faisal Mahmood	Ph.D. (China)	Assistant Professor
Engr. Shaukat Ali Soomro	M.E. (SAU)	Assistant Professor
Engr. Abdul Saboor Soomro	M.E. (SAU)	Assistant Professor

COURSES OFFERED FOR B.E. (AGR)		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
LWM-107	Soil Science	3 (2+1)
SEMESTER-II		

LWM-110	Surveying and Levelling	3 (1+2)
SEMESTER-IV		
LWM-208	GIS & Remote Sensing	2(1 – 1)
SEMESTER-V		
LWM-307	Farm irrigation systems	2(1 - 1)
SEMESTER-VII		
LWM-405	Engg. Elective-II (Soil and Water Conservation Engineering)	3(2 – 1)
AE-411	Final Year Design Project (FYDP)-I	3(0 - 3)
SEMESTER-VIII		
LWM-404	Engg. Elective-III (Farm Water Management)	3(2 – 1)
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

DEPARTMENT OF FARM STRUCTURE

The department of Farm Structures was established in 1977 to provide technical knowledge in three main areas, i.e., Farm Structures, Post-Harvest Technology, and Process Engineering in Agriculture, along with Rural Electrification. The department offers graduate (B.E.) and postgraduate (M.E. & Ph.D.) courses. There are well-qualified staff members capable of serving the purpose of enhancing the technological knowledge of youth in Post Harvest Technology, Farm Structures, Food processes & preservation, 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 progressive farmers in the field of Post-Harvest and Food Process Engineering to improve the quality and quantity of farm produce.

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

ACADEMIC STAFF

Engr. Bakhtawar Wagan	Ph.D. (China)	Professor & Chairperson
Engr. Shakeel Hussain Chattha	Ph.D. (Malaysia)	Associate Professor
Engr. Shakeel Ahmed Soomro	Ph.D. (China)	Assistant Professor
Engr. Zaheer Ahmed Khan	M.E. (SAU)	Lecturer
Engr. Noor Hussain Walhari	Ph.D. (China)	Assistant Professor

COURSES OFFERED FOR B.E. (AGRI)

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-II		
FS-112	Engineering Materials	2(1 - 1)
SEMESTER-III		
FS-209	Strength of Materials	3(2 – 1)
SEMESTER-V		
FS-309	Rural Electrification	2(1 – 1)
SEMESTER-VI		
FS-310	Engg. Elective-I (Landscape Engineering)	2(1 - 1)
SEMESTER-VII		
FS-409	Farm Structures and Control Sheds	3(2 – 1)
AE-411	Final Year Design Project (FYDP)-I	3(0 - 3)
SEMESTER-VIII		
FS-406	Agricultural Process Engineering	3(2 – 1)
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

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 environment & energy-related areas with the main emphasis on the efficient use of available energy resources and developing renewable energy resources to

minimize reliance on fossil fuels. The management and disposal of agricultural and industrial wastes are the major areas of its concern. The department also offers courses on environmental engineering, agro-industrial 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 ecosystem through man-made interventions to protect and preserve the environment from external influences. It focuses on agro-industrial development and its management strategies. Apart from 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 projects sponsored by national and international organizations.

The focused areas of the department for sustainable development are the effective use of water, sustainable energy alternatives, sustainable land management to combat desertification and land degradation, conservation of biodiversity, and planning to reduce land, water, and air pollution on a local, regional, and global perspective.

ACADEMIC STAFF

Engr. Mahmood Leghari	Ph.D. (China)	Associate Professor & Chairman
Engr. Hafizur Rehman Mangio	Ph.D. (SAU)	Associate Professor
Engr. Sheeraz Aleem Brohi	M.E. (SAU)	Lecturer

COURSES OFFERED FOR B.E. (AGRI)

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
EE-109	Industrial Chemistry	2(1 - 1)
SEMESTER-III		
EE-207	Climate Change & Water	2(1 - 1)
SEMESTER-IV		

EE-210	Environmental Engineering	3(2 - 1)
SEMESTER-VI		
EE-308	MDE Elective-I (Wastewater Engineering)	3 (2 - 1)
SEMESTER-VII		
EE- 407	Solid Waste Management	3(2 - 1)
AE-411	Final Year Design Project (FYDP)-I	3(0 - 3)
SEMESTER-VIII		
EE-408	MDE Elective-II (Alternate and Renewable Energy)	3(2 - 1)
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

DEPARTMENT OF BASIC ENGINEERING

The Department of Basic Engineering was established in 1977 as one of the departments of the Faculty of Agricultural Engineering. The department deals with various supporting courses like Applied Mathematics, Applied Physics, Computer Science, and Engineering Mechanics with applications 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 mission 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 for teaching to graduate and postgraduate students.

ACADEMIC STAFF

Ghulam Shabbir Bughio	M.Sc. (US)	Assistant Professor & Incharge Chairman
Saleem Ahmed Naich	MPhil (MUET)	Lecturer
Veeromal Bheel	MPhil (MUET)	Lecturer

AmanullahTunio	MPhil (MUET)	Lecturer
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COURSES OFFERED FOR B.E (AGR)		
CODE	TITLE OF COURSE	HRS.
SEMESTER-I		
BE-103	Calculus and Analytical Geometry	3(3 - 0)
SEMESTER-II		
BE-102	Applied Physics	3(2 - 1)
BE-104	Linear Algebra	3(3 - 0)
SEMESTER-III		
BE-201	Engineering Mechanics	3(2 - 1)
SEMESTER-IV		
BE-202	Differential Equations	3(3 - 0)
SEMESTER-V		
BE-301	Numerical Analysis	2(2 - 0)

REMOTE SENSING AND GIS LABORATORY

Accurate estimation and forecasting of agriculture statistics are 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, the Remote sensing (RS) and Geo-Information Systems (GIS) laboratory was established in the faculty in 2014 in collaboration with the Food and Agriculture Organization (FAO) of the United Nations and the United States Department of Agriculture (USDA), under the FAO project, "Building Provincial Capacity in Pakistan for Crop Forecasting and Estimation. The Lab is being strengthened by adding more workstations with support from Agriculture, Supply, and Prices Department

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 a variety of related issues in agriculture.

BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCES [BS (ENVSC)]

The BS Environmental Sciences (ENVSC), an interdisciplinary degree, is offered by the Faculty of Agricultural Engineering through the Department of Energy and Environment. The rest of the departments of faculty, as well as other concerned departments of the university, are supporting the program.

Mission of the Program

The mission of the program is to proceed perception of the environment through integrative education, scientific research, and service.

Vision of the Program

To provide quality education and research to produce effective environmental leaders who can address local, national, and international environmental challenges for greater societal benefits

Program Educational Objectives (PEOs)

The overarching aim of this program is to develop human resources in the field of environment to achieve sustainable development through appropriate education and training. After completing this degree, the graduates will be able to:

1. Analyze and assess environmental problems and their interrelationships with other systems of society

2. Apply skills for the management of environmental problems, abatement of pollution, and conservation of the environment
3. **Assess** and articulate the scientific evidence surrounding key environmental issues and evaluate ongoing efforts to mitigate environmental problems.

Program Learning Objectives (PLOs)

The degree program is expected to equip the graduates with an ability to understand the linkages between various bio-physical and socio-economic components of the environment and with the expertise of:

1. Demonstration of capabilities to understand the natural and socio-economic processes driving environmental systems.
2. Learning scientific and technical expertise to solve environmental problems by introducing interventions; and
3. Development of interactions with stakeholders, managers, and policymakers in addressing environmental issues.

COURSES OFFERED

First Year: 1st Semester

CODE	TITLE OF COURSE	HRS.
ENV-101	Introduction to Environmental Science	3(3-0)
BIO-103	Biology	3(2-1)
CHEM-105	Basic Chemistry	3(2-1)
MATH-107	Mathematics	3(3-0)
ENG-109	English-I (Functional English)	3(3-0)
PS-111	Pakistan Studies	2(2-0)

First Year: 2nd Semester

ENV-102	Introduction to Earth Sciences	3(3-0)
PHYS-104	Physics	3(2-1)

ENV-106	Environmental Monitoring	3(2-1)
SOC-108	Environmental Sociology	3(3-0)
ENG-110	English-II (Communication Skills)	3(3-0)
IS-112	Islamic Studies/Ethics	2(2-0)

Second Year: 3rd Semester

ENV-201	Wastewater Treatment and Management	3(2-1)
CHEM-203	Environmental Chemistry	3(3-0)
EC-205	Introductory Economics	3(3-0)
COM-207	Introduction to Computer	3(2-1)
ENG-209	English-III (Technical Writing & Presentation Skills)	3(3-0)

Second Year: 4th Semester

ENV-202	Fundamentals of Ecology	3(3-0)
ENV-204	Environmental Pollution	3(2-1)
ENV-206	Climatology	3(3-0)
BIO-208	Environmental Microbiology	3(2-1)
PE-210	Professional Ethic	2(2-0)
ENG-212	English-IV (PROS and POETRY)	3(3-0)

Third Year: 5th Semester

ENV-301	Agroecology	3(3-0)
ENV-303	Environmental Toxicology	3(3-0)
ENV-305	Environmental Profile of Pakistan	3(3-0)
ENV-307	Population and Environment	3(3-0)
ENV-309	Analytical Techniques in Environmental Science	3(2-1)
ENV-311	Occupational Safety, Health, and Environment	3(3-0)

Third Year: 6th Semester

ENV-302	Environmental Management Systems	3(3-0)
ENV-304	Biodiversity and Conservation	3(3-0)
ENV-308	Energy and Environment	3(3-0)
STAT-106	Applied Statistics	3(3-1)
GIS-310	GIS and Remote Sensing	3(1-2)
EC-312	Environmental Economics	3(3-0)
Final Year: 7th Semester		
ENV-401	Climate Change Adaptation and Mitigation	3(3-0)
ENV-403	Environmental Impact Assessment	3(3-0)
ENV-405	Natural Resources Management	3(3-0)
ENV-407	Research Methods in Environmental Science	3(3-0)
ENV-409	Disaster Risk Management	3(3-0)
Final Year: 8th Semester		
ENV-402	Solid Waste Management	3(2-1)
ENV-404	Environmental Governance	3(3-0)
ENV-406	Public Health and Environment	3(3-0)
ENV-408	Pollution Control Technologies	3(3-0)
FYP-412	Final Year Project	3(0-3)

BACHELOR OF SCIENCE IN AGRO-INDUSTRIAL ENGINEERING TECHNOLOGY [BS (AIET)]

Agro-Industrial Engineering Technology is an applied engineering degree program in agricultural processes and industrial technologies. It focuses on designing, understanding, planning, developing, and evaluating an integrated agricultural industry system to optimize sustainable growth.

The curriculum for the BS Agro-Industrial Engineering Technology degree program has been developed in consultation with experts in agro-industries. The program offers strong industrial-oriented education augmented with formal industrial

training. It is believed that trained technologists would help decrease the cost of agricultural production and increase the quality of the product. High-quality products would increase export, resultantly adding great value to the national economy.

Vision

To produce Agro-Industrial Engineering Technologists for a continuous transformative impact on society by overcoming industrial technical and social challenges.

Mission

To produce skilled human resources for the agro-industry through imparting professional learning and entrepreneurship.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO 1** Demonstrate knowledge of Agro-based industries appropriate for career pursuits, workplace needs, and entrepreneurship.
- PEO 2** Identify and address technical and societal problems.
- PEO 3** Demonstrate the intellectual curiosity to actively pursue acquiring new knowledge and skills necessary to refine and improve abilities to contribute to the technology domain.
- PEO 4** Work effectively as a team member or lead multidisciplinary teams while demonstrating interpersonal, management skills, social, and ethical responsibilities.

COURSES OFFERED

First Year: 1st Semester

CODE	TITLE OF COURSE	HRS.
AIET-101	Computer Aided Design and Graphics	3 (2-1)
AIET-103	Workshop Technology	3(2-1)
AIET-105	Introduction to Agro-Based Industry	2 (1-1)
AIES-107	Applied Mathematics	3(2-1)
AIET-109	Information and Communication Technology (ICT)	3(2-1)

AIEH-111	Islamic Studies/Ethics	2 (2-0)
AIEH-113	Pakistan Studies	2(2-0)
First Year: 2nd Semester		
AIET-102	Technology for Soil Salinity Control	3(2-1)
AIET-104	Fluid Mechanics	3(2-1)
AIET-106	Industrial Material Handling and Processes	2(1-1)
AIET-108	Water Quality Assessment Analytical techniques	2 (1-1)
AIET-110	GIS and Remote Sensing Technology	3(1-2)
AIET-112	Tunnel and Vertical farming	2(1-1)
AIEH-114	Composition and Communication Skills	2(2-0)
Second Year: 3rd Semester		
AIET-201	Applied Thermodynamics	3(2-1)
AIET-203	Farm Mechanization	3(2-1)
AIET-205	Post-Harvest Processes	3(2-1)
AIET-2011	Hydroponics & Soilless Culture	3(2-1)
AIEH-207	Occupational, Health, and Safety	2(1-1)
AIES-209	Industrial Chemistry	3(2-1)
Second Year: 4th Semester		
AIET-202	Engine operation and maintenance	3(2-1)
AIET-204	Manufacturing Processes	3(2-1)
AIET-206	Precision Agriculture	3(2-1)
AIET-208	Grain Processing & Storage Techniques	3(2-1)
AIET-210	Food Processing Technology	2(1-1)
AIEH-212	Professional Ethics	2(2-0)

AIEM-214	Entrepreneurship	2(2-0)
Third Year: 5th Semester		
AIET-301	Estimation and Costing	3(2-1)
AIET-303	Instrumentation and Control	2(1-1)
AIET-305	Industrial Processes and Management	3(2-1)
AIET-307	Cotton Ginning and Fiber Technology	2(1-1)
AIES-309	Applied Statistics	3(2-1)
AIEH-311	Technical Report writing	2(2-0)
Third Year: 6th Semester		
AIET-302	Automation and Robotics	2 (1-1)
AIET-304	Boiler operation and maintenance	3(2-1)
AIET-306	Pressurized Irrigation Systems	3(2-1)
AIET-308	Food Preservation	2(1-1)
AIET-310	Sugar Technology	3(2-1)
AIET-312	Environmental Impact Assessment	3(2-1)
Final Year: 7th Semester		
AIET-401	Supervised Industrial Training	16(0-16)
Final Year: 8th Semester		
AIET-401	Supervised Industrial Training	14(0-14)
AIET-403	Project Report	3(0-3)



**FACULTY OF ANIMAL HUSBANDRY &
VETERINARY SCIENCES**

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), BS in Dairy Technology, Fisheries and Aqua Culture and Poultry Sciences, 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, air-conditioned 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 the 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

Jameel A. Gandahi	PhD (China)	Associate Professor & Chairman
M. Ghiasuddin Shah	PhD (UAF)	Professor

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 Embryology	3 (2-1)

DEPARTMENT OF VETERINARY PHYSIOLOGY AND BIOCHEMISTRY

This department is situated on the 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-II	4 (3-1)
PHYS-103	Biochemistry	4 (3-1)

DEPARTMENT OF ANIMAL BREEDING AND GENETICS

The department focuses on teaching 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 the Faculty of Animal Husbandry and Veterinary Sciences. It contributes to the DVM degree program by offering several 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	PhD (China)	Assistant Professor
Farman Ali Siyal	PhD (China)	Lecture (Adhoc)

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 & Chairperson
M. Naeem Rajput	PhD (China)	Assistant Professor
Atique Ahmed Behan	PhD (Malaysia)	Assistant Professor (Adhoc)

COURSES OFFERED		
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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 Welfare 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 in 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
Ahmed Ali Moryani	PhD (SAU)	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
Asgar 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

The 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		
M. Bachal Bhutto	PhD (SAU)	Professor & Chairman
Javaid Ali Gadahi	PhD (China)	Associate Professor
Feroza Soomro	PhD (SAU)	Assistant Professor
Zubair Ahmed Laghari	PhD (China)	Assistant Professor (Adhoc)

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
PARA-201	General Veterinary Parasitology and Protozoology	3 (2-1)
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 a 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 a 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 has existed 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 (Malaysia)	Associate Professor & Chairman
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Gul Bahar Khaskheli	PhD (China)	Assistant Professor
Ghulam Shabir Barham	PhD (SAU)	Assistant Professor (Adhoc)
Muneer Ahmed Jamali	PhD (China)	Assistant Professor (Adhoc)

COURSES OFFERED

CODE	TITLE OF COURSE	C. HRS.
APT-202	Dairy Technology	2 (1-1)
EPID-302	Zoonoses and Food Safety	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 STAFF

Pershotam Khatri	PhD (Germany)	Professor & Chairman
Akeel Ahmed Memon	PhD (Malaysia)	Professor
Nazar Ali Korejo	PhD (China)	Associate Professor
Asmatullah Kaka	PhD (Malaysia)	Assistant Professor

COURSES OFFERED

CODE	TITLE OF COURSE	C. HRS.
A.REP-301	Veterinary Reproductive 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-II	1 (0-1)
A.REP-404	Clinic-III	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 library and teaching hospital with indoor facilities for small and large animals.

ACADEMIC STAFF

Ahmed Nawaz Tunio	PhD (Malaysia)	Professor & Chairman
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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 Clinic III	2 (0-2)
SURG-501	Large Animal 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-II	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)

B.S. (hons.) Dairy Technology

The department of Animal Products Technology, faculty of Animal Husbandry and Veterinary Sciences, Sindh Agriculture University Tandojam offers BS.(Hons.) in Dairy Technology (four-year degree program). Major areas i.e., Dairy Microbiology, Engineering, Physics and Chemistry, and Processing are covered in the scheme. The program emphasizes on imparting advance knowledge of milk processing and train the manpower for production, evaluation, marketing of value-added milk products and meet international standards. Dairy Technology graduates have jobs opportunities in various fields such as dairy industry, food industry, beverage sector, academia, research laboratories and institutes, government organizations, quality assurance programs, NGOs etc. After graduation, the graduates will be equipped with knowledge to satisfy the professional needs of the dairy industry.

COURSES OFFERED

FIRST SEMESTER

CODE	TITLE OF COURSE	C. HRS.
CS- 101	Introduction to Computer Science	3(2-1)
ENG-101	English-I (Functional English)	2(2-0)
MATH-101	Functional Mathematics	2(2-0)
DT- 101	Introduction to Dairy Technology	3(2-1)
FST-101	Introduction to Food and Nutrition	3(2-1)
IS-101	Islamic Studies/Ethics	2(2-0)
CS- 101	Introduction to Computer Science	3(2-1)

ENG-101	English-I (Functional English)	2(2-0)
SECOND SEMESTER		
ENG-102	English-II (Communication Skills)	2(2-0)
PS-102	Pakistan Studies	2(2-0)
BCH-102	Principles of Biochemistry	3(2-1)
LM-102	Introduction to Lactation Biology	3(2-1)
LM-102	Introduction to Livestock Production	3(2-1)
FST-102	Introduction to Food Chemistry	3(3-0)
THIRD SEMESTER		
DT-201	Dairy Plant Machinery and Layout	3(2-1)
DT-203	Chemistry of Dairy Products	3(2-1)
LM-201	Principles of Milk Production and Procurement	3(2-1)
DT-205	Fluid Mechanics	3(2-1)
MICR-201	Introduction to Microbiology	3(2-1)
DT-207	Milk Processing Technology	3(2-1)
FOURTH SEMESTER		
DT-202	Thermodynamics	3(2-1)
STAT-202	Biostatistics	2(2-0)
MICR-202	Food and Industrial Microbiology	3(2-1)
FST-202	Food Processing and Preservation	4(3-1)
DT-204	Traditional Dairy Products	3(2-1)
LEBM-202	Marketing Management and International Trade	2(2-0)
FIFTH SEMESTER		
DT-301	Dairy Microbiology	3(2-1)
DT-303	Heat Transfer and Refrigeration	4(3-1)

DT-305	Fermented Dairy Products	4(3-1)
DT-307	Fat Rich Dairy Products	3(2-1)
DT-309	Food Safety and Public Health	3(2-1)
DT-311	Dairy Biotechnology	3(2-1)
SIXTH SEMESTER		
DT-302	Dairy Plant Management and Sanitation	3(2-1)
DT-304	Microbiology of Starter Culture	3(2-1)
FST-302	Food Engineering	3(2-1)
DT-306	Food Packaging	3(2-1)
DT-308	Dairy By-Products Technology	3(2-1)
FST-304	Food Laws and Food Safety Management Systems	3(3-0)
SEVENTH SEMESTER		
DT-401	Ice Cream and Frozen Desserts	3(2-1)
DT-403	Condensed and Dried Milk Products	3(2-1)
DT-405	Sensory Evaluation of Food Products	3(2-1)
DT-407	Dairy Products Research and Development	3(2-1)
DT-409	Quality Assurance in Food Industry	3(2-1)
DT-411	Dairy Supply Chain Management	2(2-0)
EIGHTH SEMESTER		
DT-402	Internship	6(0-6)
ENG-402	English-III (Business and Technical English Writing)	3(3-0)

B.S. (hons.) FISHERIES AND AQUA CULTURE

The establishment of the Fisheries and Aquaculture section at Sindh Agriculture University Tandojam is aimed to provide world class quality education and knowledge related to the field of Fisheries and Aquaculture. The section would endear itself to a practically oriented and innovative research program to solve the

problems of fish farmers, hatchery managers, industrialists, and other stockholders of the country. The undergraduate degree program with specialty in Fisheries and Aquaculture comprises diverse courses which will enable students to have a practical knowledge regarding farming of local fish and shellfish species, their management in different climatic conditions. In addition, the available facilities will provide students to conduct problem-oriented research to address local issues faced by farmers when raising aquatic organisms. The graduates of the established facility will have job opportunities to serve in different organization such as provincial fisheries department, fisheries development board, fish feed companies, research, and education institutions and as fish farm manager.

The core objectives of the program are to achieve rural economic development through incorporating Fisheries and Aquaculture practices into overall rural development plans as the key economic activity.

COURSES OFFERED		
CODE	TITLE OF COURSE	C. HRS.
FIRST SEMESTER		
ENG-101	English-I (Functional English)	2(2-0)
IS-101	Islamic studies	2(2-0)
MATH-101	Mathematics	2(2-0)
IT-101	Introduction to Information & Communication Technologies	2(1-1)
AQFS-101	Introduction to Aquaculture	3(2-1)
AQFS-103	Ichthyology	3(2-1)
RS-101	Rural Sociology	2(2-0)
SECOND SEMESTER		
ENG-102	English-II (Communication skills)	2(2-0)
PS-102	Pakistan studies	2(2-0)
BIOCH-102	Introductory Biochemistry	3(2-1)
AQFS-102	Marine Biology	3(2-1)
AQFS-104	Pond Construction and Designing	3(2-1)
AQFS-106	Fish and Fisheries Biology	3(2-1)
AQFS-108	Fish Physiology	3(2-1)
THIRD SEMESTER		
HYDRO-201	Water Quality Management	3(2-1)
AQFS-201	Taxonomy of Fishes	3(2-1)

FN-201	Fish Nutrition	4(3-1)
AQFS-203	Fish Behavior	3(2-1)
MICR-201	Aquatic Microbiology	3(2-1)
AQFS-205	Aquatic Ecology	3(2-1)
FOURTH SEMESTER		
STAT-202	Biostatistics	3(2-1)
AQFS-202	Aquatic Toxicology	3(2-1)
AQFS-204	Fish Breeding	3(2-1)
HYDRO-202	Limnology	4(3-1)
MICR-204	Fish Immunology	3(2-1)
AQFS-206	Principles of Animal Life	3(2-1)
FIFTH SEMESTER		
AQFS-301	Integrated Fish Farming	3(2-1)
BIOT-301	Biotechnology in Aquaculture	3(2-1)
AQFS-303	Advanced Aquaculture	4(3-1)
AQFS-305	Ornamental Fish Production & Aquaria Management	3(2-1)
PARA-301	Fish Parasitology	3(2-1)
AQFS-307	Fishery Technology	3(2-1)
SIXTH SEMESTER		
AQFS-302	Fish Processing and Quality Assurance	3(2-1)
BOT-302	Aquatic Macrophytes and Management	3(2-1)
PATH-302	Fish Hygiene and Health Management	3(2-1)
AQFS-304	Inland Fisheries Management	3(2-1)
AQFS-306	Fisheries Management and Regulation	3(3-0)
AQFS-308	Biodiversity and conservation	3(2-1)
SEVENTH SEMESTER		
ENG-401	English (Technical Writing & Presentation Skills)	2(2-0)
AQFS-401	Fish Post-Harvest Technology	3(2-1)
AQFS-403	Fisheries Extension and Feasibility	3(3-0)
AQFS-405	Human Resource Management & Project Management	3(3-0)
AQFS-407	Fisheries Economics and Marketing	3(2-1)
AQFS-409	Fish Farming Techniques and Hatchery Management	3(2-1)
EIGHTH SEMESTER		

AQFS-402	Internship	3(0-3)
AQFS-404	Research project	3(0-3)

B.S. (hons.) POULTRY SCIENCES

Brief Introduction

The Department of Poultry Husbandry, Sindh Agriculture University Tandojam is the only higher education institute contributing to the poultry industry of Sindh, Pakistan. The department is teaching courses to the Doctor of Veterinary Medicine (DVM) Students and offering M.Phil., PhD. in Poultry Husbandry.

Available Infrastructure and Facilities

The department has facilities of Aviary, Hatchery, Environmentally Controlled Shed, Open-Shed, Layer Farm, Backyard Poultry Farm

The Success Story

The department is teaching related courses to the Doctor of Veterinary Medicine (DVM) students and offering M.Phil., PhD. in Poultry Husbandry. The produced postgraduates are playing a vital role in the poultry industry of Pakistan, national economic development, and several of them are also providing their precious services globally. The department is producing more than 25 postgraduates per year.

Gap & Demands

Graduates having Doctor of Veterinary Medicine (DVM) degree are short to their expertise because the students are being taught only 3 courses of poultry science in five-year degree program. Whereas Department of Poultry Husbandry produce limited number of postgraduates having specialization in Poultry Husbandry and demand is high comparatively. In current scenario Poultry industry of Sindh prefer to hire such well-trained human resources by hiring from other provinces.

Objective to Achieve

Commencement of the BS (Hons.) Poultry Science degree program at Department of Poultry Husbandry, Sindh Agriculture University Tandojam to produce professionals of international standards for serving the Poultry Industry of Pakistan specially to fill the gap of professionals in Poultry Industry of Sindh. The graduate of BS (Hons) Poultry Science will play their role as a valuable skilled human resource through-out Pakistan.

BS Poultry Science Graduates/Expertise

BS Poultry Science graduates will have expertise in the following areas of Poultry Industry

- Hatchery Management
- Broiler Layer and Breeder Farming
- Diagnosis, treatment of poultry diseases
- Health and Nutrition management
- Poultry farm consultancy
- Poultry processing
- Epidemiology and genetics of poultry diseases
- Sales and marketing of poultry products
- Microbiological aspects of Poultry Sciences
- Entrepreneurship and self-employment.

COURSE NO.	TITLE	Cr. Hr
FIRST SEMESTER		
PS-101	Introduction to Poultry Science	3 (2-1)
ANAT-101	Avian Anatomy and Histology	4 (3-1)
ENG-101	Functional English	2 (2-0)
MATH-101	Mathematics	2 (2-0)
IS-101	Islamic Studies/Ethics	2 (2-0)
IT-101	Information & Communication Technologies	3 (2-1)
SECOND SEMESTER		
PS-102	Poultry Housing and Equipment	3 (2-1)
PS-104	Broiler Production and Management	4 (2-2)
NUTR-102	Fundamentals of Poultry Nutrition	3 (2-1)
PHYS-102	Introductory Biochemistry	3 (2-1)
ENG-102	Communication skills	2 (2-0)
SS-102	Pakistan Studies	2 (2-0)
THIRD SEMESTER		
PS-201	Fowl Biology	2 (1-1)
PS-203	Layer Production & Management	4 (2-2)
PHYS-201	Avian Physiology	3 (2-1)

NUTR-201	Metabolisms of Primary Nutrients	3 (2-1)
ABG-201	Basics of Genetics	3 (3-0)
MICR-201	General Microbiology	3 (2-1)
FOURTH SEMESTER		
PS-202	Hatchery Management	3 (2-1)
PS-204	Poultry Behaviour and Welfare	3 (2-1)
PATH-202	General Pathology	3 (2-1)
MICR-202	Avian Immunology	3 (2-1)
STAT-202	Biostatistics	3 (2-1)
MED-202	Epidemiology and Public Health	3 (2-1)
FIFTH SEMESTER		
PS-301	Breeder Production & Management	4 (2-2)
PS-303	Avian Reproduction & Embryology	3 (2-1)
PS-305	Poultry Egg & Meat Processing	3 (2-1)
PS-307	Poultry Breeding Practices	3 (2-1)
PS-309	Poultry Medicine	3 (2-1)
SIXTH SEMESTER		
PS-302	Fancy & Game Birds Production	4 (3-1)
PS-304	Smart Poultry Farming	3 (2-1)
PS-306	Poultry Diseases	4 (3-1)
PS-308	Poultry Hygiene and Biosecurity	3 (2-1)
NUTR-302	Feed formulation & processing technology	4 (3-1)
SEVENTH SEMESTER		
PS-401	Poultry Farm Practices	3 (0-3)
PS-403	Poultry Records Keeping	3 (2-1)
PS-405	Poultry Marketing and Economics	3 (2-1)
PHAR-401	General Pharmacology	3 (2-1)
ABG-401	Molecular Genetics and Biotechnology	3 (2-1)
ENG-401	Research Methodology & Technical writing	3 (2-1)
EIGHTH SEMESTER		
PS-402	Research Project	6 (0-6)
PS-404	Internship	6 (0-6)

SHAHEED Z. A. BHUTTO AGRICULTURAL COLLEGE, DOKRI



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, NaushahroFeroze 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.
3. Costar service for teachers SZABAC to Larkana.

SPORTS

1. 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		
AGR. -302	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		
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

Dr Javed Shabir Dar	PhD (UAF)	Associate Professor & Chairman
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Dr Zulfiqar Ali Abbasi	PhD (SAU)	Assistant Professor
Musrat Begum Abro	M.Sc. (Agri) Hons	Assistant Professor
Dr M Mahmood Rehman Jamro	PhD (SAU)	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
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)
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 & Spices	3 (2+1)
SUPT-611	Environment and Crop Production	3 (2+1)

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, Fauji 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

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

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-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)
SEMESTER-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)
SEMESTER-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
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Saeed Ahmed Buriro	M.Sc. (Agri) Hons	Assistant Professor
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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 Panhwar	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman
Abdul Razaque Mangi	M.Sc. (Agri) Hons	Assistant Professor

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
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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)

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		
Dr Shah Nawaz Khuhro	PhD (SAU)	Associate Professor & Chairman
Dr Ghulam Sarwar Solangi	PhD (SAU)	Associate Professor
Dr Abdul Hanan Buriro	PhD (NZ)	Associate Professor
Dr Muhammad Haroon Hullio	PhD (SAU)	Assistant Professor
Dr Shahjahan Rajput	PhD (China)	Assistant Professor
Shabana Naz Mazari	M.Sc. (Agri) Hons	Lecturer

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	HRS.
SEMESTER-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)
SEMESTER-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)

SEMESTER-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 non-chemical control measures of plant diseases.

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

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
SEMESTER-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-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)
PP-604	Methods and Techniques in Plant Pathology	3 (2+1)
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, 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 crop or group of crops.

ACADEMIC STAFF

Nusrat Hussain Abbasi	M.Sc. (Agri) Hons	Assistant Professor & Incharge Chairman
Dr Tufail Ahmed Wagan	PhD (China)	Assistant Professor
Irshad Ali Junejo	M.Sc. (Agri) Hons	Lecturer (Adhoc)

COURSES OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
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-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 SOCIAL SCIENCES

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

Dr 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



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 for the refinement of vision and skills of graduates in the field of agricultural engineering, software engineering, food sciences and biotechnology.

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, software engineers, food technologists, biotechnologists 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, software engineering, food technology and biotechnology 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, Agribusiness Management, computer software, food sciences and biosciences.

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 of engineering and technology in the areas of farm power and machine systems, soil and water and natural resources management, software engineering, food technology, biotechnology.

- 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		
Engr. Dr. Ali Raza Shah	PhD (SAU)	Principal
Hafeez Rehman Mangio	PhD (SAU)	Associate Professor & Chairman
Irshad Ali Mari	PhD (China)	Associate 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	PhD (Malaysia)	Assistant Professor (Adhoc)
Sher Ali Shaikh	M.E. (Agri.)	Lecturer (study leave)
Mazhar Hussain Tunio	M.E. (Agri.)	Lecturer (study leave)

Sheeraz Aleem Brohi	M.E. (Agri.)	Lecturer
Munawar Ali Seelro	M.Phil. (IBA)	Lecturer (Study Leave)
Abid Ali Randhawa	M.Sc. (Agri.) Hons.	Lab. Lecturer
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-101	Basic Agriculture	2(1 - 1)
BE-103	Calculus and Analytical Geometry	3(3 - 0)
FPM-105	Metallurgy & Workshop Practices	3(2 - 1)
LWM-107	Soil Science	3(2 - 1)
EE-109	Industrial Chemistry	2(1 - 1)
PS-111	Pak Studies and Global Perspective	2(2 - 0)
IT-113	Information & Communication Technologies	3(2 - 1)
SEMESTER-II		
BE-102	Applied Physics	3(2 - 1)
BE-104	Linear Algebra	3(3 - 0)
FPM-106	Engineering Drawing & Graphics	2(1 - 1)
ID-108	Soil Mechanics	3(2 - 1)
LWM-110	Surveying and Levelling	3(1 - 2)
FS-112	Engineering Materials	2(1 - 1)

ENG-114	Functional English	2(2 - 0)
SEMESTER-III		
BE-201	Engineering Mechanics	3(2 - 1)
FPM-203	Applied Thermodynamics	2(1 - 1)
ID-205	Engineering Hydrology	3(2 - 1)
EE-207	Climate Change & Water	2(1 - 1)
FS-209	Strength of Materials	3(2 - 1)
ENG-211	Communication Skills	2(2 - 0)
IS-213	Islamic Studies and Ethics	2(2 - 0)
SEMESTER-VI		
BE-202	Differential Equations	3(3 - 0)
FPM-204	IC Engines and Tractors	3(2 - 1)
ID-206	Fluid Mechanics	3(2 - 1)
LWM-208	GIS & Remote Sensing	2(1 - 1)
EE-210	Environmental Engineering	3(2 - 1)
SE-212	Social Sci Elective-I (Sociology for Engineers)	2(2 - 0)
IT-214	Artificial Intelligence (AI)	2(1 - 1)
SEMESTER-V		
BE-301	Numerical Analysis	2(2 - 0)
FPM-303	Machine Design	3(2 - 1)
ID-305	Open Channel Hydraulics	3(2 - 1)
LWM-307	Farm irrigation systems	2(1 - 1)
FS-309	Rural Electrification	2(1 - 1)
EC-311	Management Elective-I (Entrepreneurship)	2(2 - 0)
STAT-313	Probability and Statistics	3(3 - 0)

SEMESTER-VI		
FPM-302	Farm Machinery and Automation	3(2 - 1)
FPM-304	Instrumentation and Control	2(1 - 1)
ID-306	Pumps and Tubewells	2(1 - 1)
EE-308	MDE Elective-I (Wastewater Engineering)	3 (2 - 1)
FS-310	Engg. Elective-I (Landscape Engineering)	2(1 - 1)
EC-312	Social Sci. Elective-I (Economics for Engineers)	2(2 - 0)
ENG-314	Technical Writing and Presentation Skills	2(2 - 0)
SEMESTER-VII		
FPM-401	Earth Moving Machinery	2 (1 - 1)
ID-403	Irrigation Engineering	3(2 - 1)
LWM-405	Engg. Elective-II (Soil and Water Conservation Engineering)	3(2 - 1)
EE- 407	Solid Waste Management	3(2 - 1)
FS-409	Farm Structures and Control Sheds	3(2 - 1)
AE-411	Final Year Design Project (FYDP)-I	3(0 - 3)
AE-413	Internship (6 to 8 weeks)	0(0 - 0)
SEMESTER-VIII		
ID-402	Drainage Engineering	3(2 - 1)
LWM-404	Engg. Elective-III (Farm Water Management)	3(2 - 1)
FS-406	Agricultural Process Engineering	3(2 - 1)
EE-408	MDE Elective-II (Alternate and Renewable Energy)	3(2 - 1)
AE-412	Final Year Design Project (FYDP)-II	3(0 - 3)

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 POST 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 similar to 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 to meet the needs of growers and food industries.

- To research on various aspects of Food Science and Technology.
- To educate the rural masses 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
B. 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)

B. Sc (Hons.) Part-I 2nd Semester

1.	FST-302	Food Chemistry	3(3-0)
2.	FS-304	Unit Operation in Food Processing	3(2+1)
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)

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)

B. Sc (Hons.) Part-II 2nd 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)

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)

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)

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)

B. Sc (Hons.) Part-IV 2nd 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)

DEPARTMENT OF BIOTECHNOLOGY

Biotechnology is based on the application of scientific and engineering principles to the processing of materials by biological agents 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 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.

**SCHEME OF STUDIES OF B.SC. (HONS.)
IN BIOTECHNOLOGY**

S#	Course Code	Title of Courses	Cr. Hrs
		B. Sc. (Agri.) Hons. P-I (1 st Semester)	
1	IS/ EB-301	Islamic Studies/ Ethics (optional for Non-Muslim Students)	2(2+0)
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)

B. Sc. (Agri.) Hons. P-II (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)

B. Sc. (Agri.) Hons. P-II (1st Semester)

1	PBG-401	Introductory Plant Breeding	3(2+1)
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)

B. Sc. (Agri.) Hons. P-II (2nd 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)

B.Sc. (Agri) Hons. P-III (1st 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)

B.Sc. (Agri) Hons. P-III (2ND 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)

B.Sc. (Agri) Hons. P-IV (1st Semester)

1	BT -601	Bioinformatics	3(2+1)
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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)

B.Sc. (Agri) Hons. P-IV (2nd 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)

DEPARTMENT OF SOFTWARE ENGINEERING

The software engineering program provides project rich learning experience to educate software engineers for success in a rapidly evolving computing field. Software plays a central and underpinning role in almost all aspects of daily life: communications, government, manufacturing, banking, finance, education, transportation, entertainment, medicine, agriculture, and law. Software Engineering derives its essence from computer sciences as other engineering disciplines do from natural or life sciences, with an emphasis on issues of process, design, measurement, analysis, and verification providing a strong foundation in engineering principles and practices as applied to software development. Software Engineering is the application of a systematic, disciplined, and quantifiable approach to the design, development, operation, and maintenance of software systems. The program aims to train students in all aspects of software life cycle from specification through analysis and design to testing, maintenance and evolution of software product.

S#	Course Code	Title of Courses	Cr. Hrs
		BS (Software Engineering) Semester-I	
1	SE-301	Introduction to Information & Communication Technologies	3(2+1)
2	SE-303	Programing Fundamentals	4(3+1)

3	BE-305	Calculus and Analytical Geometry	3(3+0)
4	BE-307	Applied Physics	3(3+0)
5	ENG-309	English Composition & Comprehension	2(2+0)
6	IS/EHS-311	Islamic Studies/Ethics	2(2+0)

Semester-II

1	SE-302	Object Oriented Programming	4(3+1)
2	SE-304	Discrete Structure	3(3+0)
3	SE-306	Software Engineering	3(3+0)
4	SE-308	Functional Accounting	3(3+0)
5	ENG-310	Communication and Presentation skills	3(3+0)
6	PS-312	Pakistan Studies	2(2+0)

Semester-III

1	SE-401	Data Structure and Algorithm	4(3+1)
2	SE-403	Software Requirement Engineering	3(3+0)
3	SE-405	Human Computer Inter Interaction	3(3+0)
4	SE-407	Organizational Behavior	3(3+0)
5	BE-409	Linear Algebra	3(3+0)

Semester-IV

1	SE-402	Operating Systems	4(3+1)
2	SE-404	Database Systems	4(3+1)
3	SE-406	Software Design & Architecture	3(2+1)
4	SE-408	Bioinformatics	3(3+0)
5	Stat-410	Probability and Statistics	3(3+0)

Semester-V

1	SE-501	Software Construction and Development	3(2+1)
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2	SE-503	Computer Networks	4(3+1)
3	SE-505	Business Process Engineering	3(3+0)
4	SE-507	Simulation and Modeling	3(3+0)
5	ENG-509	Technical & Business Writing	3(3+0)

Semester-VI

1	SE-502	Software Quality Engineering	3(3+0)
2	SE-504	Professional Practice	3(3+0)
3	SE-506	Information Security	3(3+0)
4	SE-508	Web Engineering	3(3+0)
5	SE-510	Formal Methods in Software Engineering	3(3+0)
6	SE-512	Computer Graphics	3(2+1)

Semester-VII

1	SE-601	Software Project Management	3(3+0)
2	SE-603	Big Data Analytics	3(2+1)
3	SE-605	Mobile Application Development	3(2+1)
4	SE-607	Cloud Computing	3(2+1)
5	SE-609	Geographic Information Systems	3(2+1)

Semester-VIII

1	SE-602	Artificial Intelligence & Machine Learning	3(2+1)
2	SE-604	Virtual & Augmented Reality	3(2+1)
3	SE-606	Final Year Project	6(0+6)



SAU CAMPUS, UMERKOT

SINDH AGRICULTURE UNIVERSITY CAMPUS, UMERKOT

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

Bachelor's degree Programs are offered in various disciplines including (i) BSc (Agri) Hons (ii) BS Information Technology (iii) BS Software Engineering (iv) BS English (Language & Literature) to impart the education to the students coming from all over the Sindh. The major Umerkot, Tharparkar, Mirpurkhas and Sanghar are major beneficiaries' larger number of seats is reserved for these districts. The graduates of Sindh Agriculture University Sub-Campus, Umerkot after completion of degrees will serve in various fields related to agriculture and information technology 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

1. 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.
3. To perform practical research and/or remain technologically proficient through involvement in research-oriented activities.

ACADEMIC STAFF

Department of Agronomy

Mr. Muhammad Saleem Chang	M.Sc. (SAU)	Lecturer
Dr. Abdul Hafeez Laghari	PhD (China)	Lecturer (Contract)
Dr. Shoaib Ahmed Hakro	PhD (China)	Lecturer (Contract)
Ms. Reema Vistro	M.Sc. (SAU)	Lecturer (Contract)

Department of Plant Protection

Mr. Naveed Ahmed Abbasi	M.Sc. (SAU)	Lecturer
Dr. Muhammad Azeem Khaskheli	PhD (China)	Lecturer (Contract)
Ms. Sumbul Mureed Mastoi	M.Sc. (SAU)	Lecturer (Contract)

Department of Soil Science

Dr. Vishan Das Suthar	PhD (SAU)	Assistant Professor
Mr. Zulfiqar Ali Mari	M.Sc. (SAU)	Lecturer (Contract)
Ms. Zoya Laghari	M.Sc. (SAU)	Lecturer (Contract)

Department of Information Technology

Ms. Lubna Khoso	MSIT (SAU)	Lecturer (Adhoc)
Mr. Toufique Ahmed Nizamani	MSIT (SAU)	Lecturer (Adhoc)
Mr. Naeem Ali Kubar	MSIT (SAU)	Lecturer (Adhoc)
Ms. Saima Bhutto	BSIT (SAU)	Lab. Lecturer (Contract)
Mr. Yasir Ali Mari	BSIT (SAU)	Lab. Lecturer (Contract)
Ms. Sahrish Sahito	BSIT (SAU)	Lab. Lecturer (Contract)

Allied Sciences

Dr. Ayaz Ali Soomro	PhD (China)	Assistant Professor
Muhammad Nawaz	M.Phil. (MUET)	Lecturer
Abid Ali Randhawa	M.Sc. (SAU)	Lab. Lecturer

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	2 (2+0)
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	3 (3+0)
BT-301	Introductory Biotechnology	3 (2+1)
SEMESTER-II		
AGR. -302	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-II	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
- English (Language & Literature)
 - Software Engineering

DEPARTMENT OF AGRONOMY

Agronomy is concerned with the production management of various crops. The national economy is based on agriculture and agronomy is the one of the most vital fields 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 OFFERED FOR B.Sc. (Agri.) Hons.

CODE	TITLE OF COURSE	C. HRS.
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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)
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 & Spices	3 (2+1)
SUPT-611	Environment and Crop Production	3 (2+1)
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.
SEMESTER-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)
SEMESTER-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)
SEMESTER-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 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-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

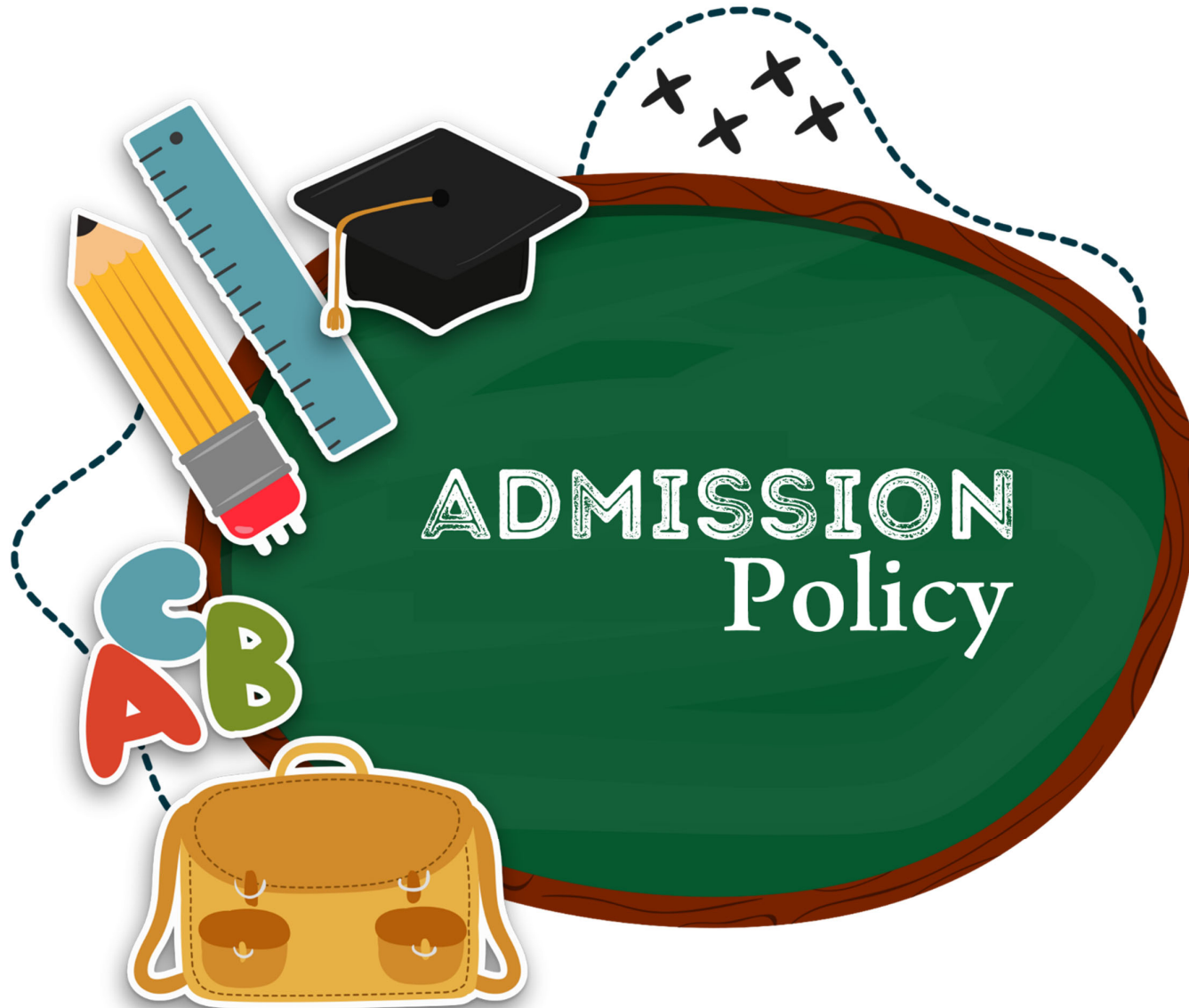
This department offers compulsory and supporting course to others major disciplines, through following sections:

1. Plant Biotechnology
2. Food Sciences and Technology
3. Crop Physiology
4. English.
5. 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 OFFERED FOR BS(IT) HONS.		
CODE	TITLE OF COURSE	C. HRS.
SEMESTER-I		
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-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	Principles 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 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-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)
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-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-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-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)



ADMISSION POLICY (UNDERGRADUATE PROGRAMS 2022-23)

Admission Policy Committee

1.	Prof. Dr. Fateh Muhammad Mari, Vice Chancellor, SAU Tandojam	Chairman
2.	Prof. Dr. Khalil Ahmed Ibupoto Vice Chancellor, SAU Abdul Latif University, Khairpur	Member
3.	Dr. Bhai Khan Shar, Vice Chancellor, SABS University of Art, Design Heritage Jamshoro	Member
4.	Pro Vice Chancellor, SAU, Campus @ Umerkot	Member
5.	All Deans of Faculties, SAU Tandojam	Members
6.	Prof. Dr. A. Q. Mughal, Emeritus Professor, SAU Tandojam	Member
7.	The Advisor (Academics) to Vice-Chancellor	Member
8.	The Advisor (P&D) to VC, SAU, Tandojam	Member
9.	The Principal, KCAET, Khairpur	Member
10.	The Principal, SZABAC, Dokri	Member
11.	The Director, Advanced Studies	Member
12.	Mr. G. M. Qureshi, Registrar, SAU	Member
13.	The Controller of Examinations, SAU, Tandojam	Member
14.	The Director Admission (Undergraduate Programs) SAU, Tandojam	Member/Secretary

GENERAL INSTRUCTIONS

1. Admissions to the First Year for all the degree programs are made according to the policies and rules, framed by the authorities of the University from time to time. The rules mentioned in this prospectus are

subject to revision by the competent authority as and when deemed necessary and without any notice. The number of seats has been fixed as shown in Tables (7 to 14). There are other categories of candidates who are also eligible for admission, which are described in detail in the subsequent clauses.

2. 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.
3. An applicant registered with any other University / Institution / College, if selected at Sindh Agriculture University, Tandojam, SZABAC, KCAET and SAU 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 Campus Umerkot.
4. 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.
5. An applicant convicted of moral turpitude shall not be considered for admission.
6. The hostel accommodation is not the liability of the University and shall only be provided subject to the availability of space

Rules and Procedures for Admission to Undergraduate Degree Programs

I. ADMISSION

- i. Following rules shall apply to candidates seeking admissions to B.Sc. (Agri.) Hons., D.V.M; BE. (Agri.); BSIT. (Hons.), B.Sc. (Hons.) Food Sciences and Technology, BS in Fisheries & Aquaculture, BS in Dairy Technology, BS in Poultry Sciences, BS in English Language & Literature, BS in Computer Sciences, BS in Software Engineering, BS in

Environmental Sciences and BS in Agro-Industrial Engineering Technology at SAU Main Campus & its Constituent Colleges/Campus.

II. ELIGIBILITY

1. Minimum requirements of admission shall be Intermediate (Pre-Medical, Pre-Engineering, Pre-Computer/General Science and FA/F.Sc) in annual examination **2022** or earlier upto **2018** 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. However, the eligibility for B.E. (Agri.) degree program shall be **60%** marks in Intermediate (Pre-Engineering). Rural/Urban quota shall however strictly be observed for reserved seats of various districts of Sindh province.
 2. Candidates who have passed Diploma of Associate Engineer (DAE) from any recognized Board of Technical Education in Pakistan in any approved discipline (e.g., Civil, Electrical, Mechanical & Chemical) with atleast 50% marks are eligible to apply for admission to BS in Agro-Industrial Engineering Technology degree program. However, the condition of passing year does not apply to DAE holders seeking admission to BS in Agro-Industrial Engineering Technology.
 3. Candidates appearing/passing Intermediate (Pre-Medical, Pre-Eng. and Pre-Computer/General Science) in the supplementary Examination **2022** shall not be eligible; however, candidates passed their Intermediate in supplementary examinations during the years **2018, 2019, 2020, and 2021** will be considered for admissions.
 4. Candidates with Intermediate:
 - a Pre-Medical Group shall be eligible for admission to D.V.M., BS in Fisheries & Aquaculture, Dairy Technology and Poultry Sciences, 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 and Khairpur College of Agricultural Engineering & Technology (KCAET).
 - c Both Pre-Engineering & Pre-Medical Groups shall be eligible for admission to B. Sc (Agri.) Hons. at the ratio of 80:20 (80% Pre-Engineering, 20% Pre-Medical) in the Faculty of Agricultural Social Sciences.
 - d Intermediate/FA/F.Sc shall be eligible for admission to BS in English Language & Literature in the Faculty of Agricultural Social Sciences & SAU Campus Umerkot.
 - e 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, KCAET & SAU Campus Umerkot at the ratio of 80:20 (80% Pre-Medical, 20% Pre-Engineering).
 - f Pre- Computer Group/General Science will be given priority for admission to BSIT. (Hons.), BS in Computer Sciences and Software Engineering. 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).
 - g Pre-Medical, Pre-Engineering & Pre-Computer/General Science 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/General Science).
 - h Pre-Engineering/DAE shall be eligible for admission to BS in Agro-Industrial Engineering Technology in the Faculty of Agricultural Engineering, SAU, Tandojam at the ratio of 50:50 (50% for Intermediate and 50% DAE).
 - i Pre-Medical, Pre-Engineering & Pre-Computer/General Science Groups shall be eligible for admission to BS in Environmental Sciences at the ratio of 50:40:10 (50% Pre-Medical, 40% Pre-Engineering & 10% Pre-Computer/General Science).
5. Admission of Sindh-domiciled candidates shall be made according to district quota. The selection of candidates from district quota shall be 80% from rural and 20% from urban areas. However, the selection of candidates in BS programs of various disciplines shall be made on divisional quota at the ratio of 70% from Rural and 30% from Urban areas. Urban areas in each district/division 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/division.

6. 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.
7. In case of marks being equal between two or more candidates, selection will be made based on marks obtained in pre-admission test.
8. 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 shall not be entertained. The final merit of nominated candidates shall be determined by Sindh Agriculture University Tandojam.
9. 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 at least 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, Agricultural Engineering, Information Technology Center, and Institute of Food Sciences & Technology. It is advised 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.

10. 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.
11. In case of reserved quota for Defense Personnel, the nominations shall be made by General Headquarter Rawalpindi/Naval Headquarter Islamabad.
12. The candidates from Province of Punjab may apply directly for their admission against reserved seats.
13. 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 the 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.
14. 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.
15. 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 interested to seek admission in discipline higher up in preference order, failing which they shall lose 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.

Candidates desire to retain the discipline/faculty where they have been selected, they may do so by submitting handwritten application with fees of Rs. 200/- to be deposited in the university account through bank challan

within 07 (seven) days from the date of announcement of list positively to the Director, Admissions (Undergraduate).

16. 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.
17. The candidate(s) who have got admission by paying prescribed amount of fee against merit quota seats and want to get their provisional admission cancelled; he / she shall be entitled to get refund of fee as per approved HEC policy.
18. There shall be no refund of self-finance fees **after the admission process is over**. However, the candidate gets admission earlier under the self-finance scheme but later, he / she is considered/allowed admission on merit, he / she shall be entitled to get self-finance fee as well as extra / excess amount of registration fees refunded.
19. 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.
20. The candidates who apply for admission on the basis of fake certificate/documents (detected before or after their admissions) shall be prosecuted under criminal law and their admission shall be cancelled. Additionally, they may also be debarred for a period of three years for future admission and all payments made to the University shall be forfeited in favor of the University.
21. Those candidates, who were admitted to any other institute/university before applying for admission at Sindh Agriculture University and its Constituent Colleges/Campus and were rusticated, debarred or their admissions were cancelled, shall not be considered for admission in the University. Additionally, if the candidates withhold/hidden information regarding such a disciplinary action and they were granted provisional admission; their admission will be cancelled immediately after ascertaining such facts. Those candidates who have been convicted involving for moral

turpitude shall also be refused admission in the University/Constituent Colleges/Campus.

22. All the interested candidates who wish to get admission to bachelor's degree program for the academic year **2022-23** may visit admission portal (<https://sau.edu.pk/undergraduate/>). The candidates shall have to pay Rs. **3000/-** (non-refundable) as registration/processing fee through challan in any branch of HBL. The candidate shall be required to send 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.
23. 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 the stipulated time. Single form filled and submitted for sports quota, shall be considered only for district merit quota seats.
24. Candidates applying for admission at Sindh Agriculture University and 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 a self-finance basis. They simply need to tick (v) the self-finance option () given in online form.

III. ADMISSION FORM

25. Call for admissions advertised in the prominent newspaper of national and regional repute as well as on the University website sau.edu.pk. The candidates who intend to apply for admission must follow the guidelines mentioned on the SAU website sau.edu.pk. A valid email address is mandatory to complete the registration process. The candidates are required to deposit the admission processing fee in any branch of Habib Bank Ltd. The candidate has to upload the scanned copies of all the required documents and a copy of paid bank challan as indicated. The Sindh Agriculture University authorities after receipt of application and admission processing fee will email admit slips to candidates for pre-admission test.

The candidate has to print the admit slip and bring the same on the day of pre-admission test along with original CNIC/B-Form. The appearance/passing in the pre-admission test does not mean the candidate is eligible for admission. The eligibility of the candidate for admission is decided by the University after scrutinizing the documents provided by the candidates. The eligibility criteria for admission is given above in Clause-II. Since the admission form is a legal document, any wrong information provided therein or tempering it in any other way is illegal and may result in rejection of the form out rightly.

IV. PRE-ADMISSION TEST

26. In accordance with the policies adopted by the Federal as well as Provincial Governments, all the eligible candidates applying under all categories except nominees of Armed Forces/Overseas, shall compulsorily have to appear in a University Pre-admission Test. Candidates having secured less than 20% marks in pre-admission test, shall not be eligible for admission at the University/Constituent Colleges/Campus.
27. Test shall be conducted in four subjects, with subject-wise weightage, number of questions and marks as shown below:

Subject	No. of Questions	Marks	Time
Physics	25	25	100 minutes
Chemistry / Computer	25	25	
Biology / Math's	25	25	
English & General Knowledge (80:20%)	25	25	
Total	100	100	

28. The Final merit list of the candidates for each district/category is prepared by calculating their overall merit, based on the marks obtained in each of the following examinations, multiplying them with the respective weightage and adding the result to calculate the "Composite Percentage Number" as described below: -

Examination	Multiplying Weightage
a) Matriculation	0.10

b) Intermediate	0.40
c) Pre-Admission Test	0.50

29. Twenty (20) Marks for Agriculture subject 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.
30. One percent (01%) of the aggregate marks for each year shall be deducted from the total marks of Intermediate Science/ equivalent examination if the examination was passed before 2022.
31. 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.

V. IDENTITY CARD

32. The students, after being allowed admission at the University / College / SAU 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 and/or staying at the campus.

VI. RE-ADMISSION POLICY

33. Those students who remained absent from their classes are examinations for any reasons, will be considered for re-admission in the appropriate semester where they left their study program, 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/ Campus concerned giving the cogent reasons.

VII. REGISTRATION FORM

34. The students seeking admission in each subsequent semester shall pay fees through bank challan in the relevant University/College(s)/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 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 Campus Branch.

VIII. MIGRATION RULES AND REGULATIONS

35. 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.

- i. No student shall be admitted to first year class by such Migration.
- ii. 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. **500,000/-** for AH&VS, Rs. **300,000/-** for FAE & Rs. **200,000/-** for CPD, CPT, FASS respectively to the Sindh Agriculture University Tandojam, while students belonging to HEC recognized Universities/Institute of other than Sindh Province would be required to pay Rs. **1,000,000/-** for AH&VS, Rs. **700,000/-** for FAE & Rs. **500,000/-** for CPD, CPT, FASS respectively as migration fee and submit the “**No Objection Certificate**” (NOC) of the parent University/Institutes.

- 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.
- b. 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.

TABLE-1

**BREAKUP OF VARIOUS FEES (Rupees)
FEE TO BE CHARGED FROM THE STUDENTS REGISTERING IN ALL THE FACULTIES, COLLEGES & CAMPUS**

S.#	FEES STRUCTURE	2022-23								2022-23			
		MAIN CAMPUS								CONSTITUENT COLLEGES/SUB-CAMPUS			
		At the time of 1st Admission				Subsequent Semesters				At the time of 1st Admission		Subsequent Semesters	
		Merit		Self-Finance		Merit		Self-Finance		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	10,000.00	9,000.00	10,000.00	-	-	-	-	8,200.00	8,000.00	-	---
2	Registration Fee (Per Semester)	4,000.00	5,000.00	4,000.00	5,000.00	2,000.00	2,500.00	2,000.00	2,500.00	3,200.00	3,000.00	1,650.00	1,450.00
3	Tuition Fee (Per Semester)	5,000.00	6,000.00	10,000.00	12,000.00	4,000.00	5,000.00	9,000.00	10,000.00	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	1,000.00	1,000.00	1,000.00	1,000.00	500	700	700	700
5	Magazine Fee (Per Semester)	500	500	500	500	500	500	500	500	300	300	300	300
6	Co-curricular Activities Fee (Per Semester)	1000	1000	1000	1000	1000	1000	1000	1000	600	600	600	600
7	Enrolment Card Fee (Once)	1000	1000	1000	1000	-	-	-	-	700	700	-	---
8	Identity Card Fee (Per Semester)	500	500	500	500	500	500	500	500	300	300	300	300
9	Library User Charges Fee (Per Semester)	2,000.00	2,000.00	2,000.00	2,000.00	500	500	500	500	1,500.00	1,500.00	300	300
10	Library Card Fee (Per Semester)	300	300	300	300	300	300	300	300	200	200	200	200
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)	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,300.00	1,300.00	1,300.00	1,300.00
13	Transport Fee (Per Semester)	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,200.00	2,200.00	2,200.00	2,200.00
14	Endowment Fund (Per Semester)	500	500	500	500	500	500	500	500	500	500	500	500
15	Pakistan Education & Research Network Charges (Per Semester)	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	-	-	-	-
	Total	32,500.00	35,500.00	37,500.00	41,500.00	16,300.00	17,800.00	21,300.00	22,800.00	25,200.00	29,500.00	12,050.00	16,350.00
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 students registering in DVM program													1,000/-

TABLE-2**BREAKUP OF VARIOUS FEES (Rupees)
FEE TO BE CHARGED FROM THE STUDENTS REGISTERING IN BS DEGREE PROGRAMS**

Sr. No.	Fees Structure	2022-23	
		MAIN CAMPUS	
		At the time of 1st Admission	Subsequent Semesters
		BS Degree Programs	BS Degree Programs
1	Admission/Registration Fee (Per Semester)	10,000.00	10,000.00
2	Tuition Fee (Per Semester)	4,500.00	4,500.00
3	Gymkhana Fee (Per Semester)	1000	1000
4	Magazine Fee (Per Semester)	400	400
5	Co-curricular Activities Fee (Per Semester)	600	600
6	Identity Card Fee (Per Semester)	300	300
7	Library User Charges Fee (Per Semester)	1,500.00	1,500.00
8	Library Card Fee (Per Semester)	200	200
9	Examination Fee (Per Semester)	1,500.00	1,500.00
10	Transport Fee (Per Semester)	2,500.00	2,500.00
11	Endowment Fund (Per Semester)	500	500
12	Pakistan Education & Research Network Charges (Per Semester)	2000	2000
Total		25,000.00	25,000.00

TABLE-3**SELF-FINANCING CHARGES (Rs.)**

S#	Program	Sindh Province		Other Province	
		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 **2022-23**, 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

TABLE-4**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.

TABLE-5**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	Correction / Re- totaling of Marks	400
22	Duplicate Admit Card	150
23	SAU Certificate Verification (Overseas)	\$60

TABLE-6**HOSTEL ACCOMODATION FEES CHARGEABLE FROM ALL STUDENTS RESIDING IN SAU HOSTELS**

S.#	Name of Fees/Charges	Rs. Per Year/Annum
1.	Hostel Allotment	1400
2.	Hostel Card	500
3.	Hostel Form	500
4.	Room Rent	1300
5.	Electric	500
6.	Water	500
7.	Clinical	600
8.	Development	600
9.	Internet	1000
10.	Sui Gas	600
TOTAL		7,500

TABLE-7

FACULTY WISE DISTRIBUTION OF MERIT SEATS FOR VARIOUS DISTRICTS OF SINDH. R = RURAL U= URBAN

Division / District	B.Sc.(Agri.) Hons.									B.E (Agri)			B.E (Agri)			BSIT. (Hons.)			B.Sc (Hons.)			Grand 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			
	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T	
HYDERABAD DIVISION																						
Hyderabad	30	8	38	15	5	20	12	3	15	10	3	13	7	2	9	16	5	21	3	2	5	121
Tando Allahyar	9	3	12	6	2	8	3	2	5	3	2	5	2	1	3	5	2	7	2	1	3	43
Tando Muhammad Khan	9	2	11	6	2	8	5	2	7	3	2	5	2	1	3	5	2	7	2	1	3	44
Matiari	10	3	13	6	2	8	5	2	7	3	2	5	2	1	3	5	2	7	2	1	3	46
Badin	13	3	16	8	2	10	6	1	7	5	1	6	5	1	6	7	2	9	2	1	3	57
Thatta	7	2	9	4	1	5	4	1	5	3	1	4	3	1	4	6	1	7	1	0	1	35
Sujawal	6	1	7	4	1	5	2	1	3	2	0	2	2	0	2	3	1	4	2	0	2	25
Dadu	14	3	17	9	2	11	5	1	6	5	1	6	5	1	6	8	2	10	2	0	2	58
Jamshoro	7	2	9	4	1	5	3	1	4	3	1	4	3	1	4	5	1	6	2	1	3	35
Sub-Total	105	27	132	62	18	80	45	14	59	37	13	50	31	9	40	60	18	78	18	7	25	464
MIRPURKHAS DIVISION																						
Mirpurkhas	12	3	15	7	2	9	5	1	6	4	1	5	4	1	5	8	2	10	2	1	3	53
Umerkot	8	2	10	4	1	5	3	1	4	3	1	4	3	1	4	6	1	7	2	0	2	36
Tharparkar	11	3	14	6	1	7	5	1	6	4	1	5	4	1	5	7	2	9	2	1	3	49
Sub-Total	31	8	39	17	4	21	13	3	16	11	3	14	11	3	14	21	5	26	6	2	8	138
SHAHEEDBENAZIRABAD DIVISION																						
Shaheed Benazir Abad	14	3	17	7	2	9	6	1	7	5	1	6	5	1	6	7	2	9	2	0	2	56
Noushehro Feroze	13	3	16	8	2	10	5	1	6	5	1	6	5	1	6	8	2	10	2	0	2	56
Sanghar	16	4	20	9	2	11	6	1	7	6	1	7	6	1	7	9	2	11	3	1	4	67
Sub-Total	43	10	53	24	6	30	17	3	20	16	3	19	16	3	19	24	6	30	7	1	8	179
SUKKUR DIVISION																						
Sukkur	12	3	15	6	1	7	5	1	6	4	1	5	4	1	5	6	2	8	2	0	2	48
Ghotki	13	3	16	7	2	9	4	1	5	4	1	5	4	1	5	6	2	8	2	0	2	50
Khairpur	20	5	25	10	3	13	8	2	10	7	2	9	7	2	9	10	3	13	2	1	3	82
Sub-Total	45	11	56	23	6	29	17	4	21	15	4	19	15	4	19	22	7	29	6	1	7	180
LARKANA DIVISION																						
Larkana	12	3	15	6	2	8	4	1	5	4	1	5	4	1	5	8	2	10	2	1	3	51
Qambar/Shahdadkot	11	3	14	6	1	7	5	1	6	4	1	5	4	1	5	7	2	9	2	0	2	48
Shikarpur	11	3	14	6	1	7	5	1	6	4	1	5	4	1	5	6	2	8	2	1	3	48
Jacobabad	9	2	11	5	1	6	3	1	4	3	1	4	3	1	4	5	1	6	2	0	2	37
Kashmore	9	2	11	4	1	5	4	1	5	3	1	4	3	1	4	5	1	6	1	0	1	36
Sub-Total	52	13	65	27	6	33	21	5	26	18	5	23	18	5	23	31	8	39	9	2	11	220
Karachi Division	6	2	8	2	1	3	2	1	3	2	1	3	2	1	3	2	1	3	2	0	2	25
Grand Total	282	71	353	155	41	196	115	30	145	99	29	128	93	25	118	160	45	205	48	13	61	1206

TABLE-8

FACULTY WISE DISTRIBUTION OF MERIT SEATS FOR VARIOUS DISTRICTS OF SINDH. R = RURAL U= URBAN (PRE-ENGINEERING, PRE-MEDICAL & PRE-COMPUTER AT PRESCRIBED RATIO

Division / District	B.Sc (Agri.) Hons.															B.E. (Agri.)			DVM			BSIT. HONS.					B.Sc. (Hons)						GRAND TOTAL		
	Faculty of Crop Production					Faculty of Crop Protection					Faculty of Agricultural Social Sciences					Faculty of Agricultural Engineering			Faculty of A.H & Veterinary Sciences			Information Technology Centre					Institute of Food Science & Technology								
	R	U				R	U				R	U				R	U		R	U		R	U		R	U		R	U		R	U			R
HYDERABAD DIVISION	PM	PE	PM	PE	T	PM	PE	PM	PE	T	PE	PM	PE	PM	T	PE	PE	T	PM	PM	T	PE	PM	PE	PM	T	PM	PE	PC	PM	PE	PC	T		
Hyderabad	24	6	6	2	38	12	3	4	1	20	10	2	2	1	15	10	3	13	7	2	9	13	3	4	1	21	2	1	0	1	1	0	5		
Tando Allahyar	7	2	2	1	12	5	1	2	0	8	2	1	2	0	5	3	2	5	2	1	3	4	1	2	0	7	1	1	0	1	0	0	3		
Tando Muhammad Khan	7	2	2	0	11	5	1	2	0	8	4	1	2	0	7	3	2	5	2	1	3	4	1	2	0	7	1	1	0	1	0	0	3		
Matiari	8	2	2	1	13	5	1	2	0	8	4	1	2	0	7	3	2	5	2	1	3	4	1	2	0	7	1	1	0	1	0	0	3		
Badin	10	3	2	1	16	6	2	2	0	10	5	1	1	0	7	5	1	6	5	1	6	6	1	2	0	9	1	1	0	1	0	0	3		
Thatta	6	1	2	0	9	3	1	1	0	5	3	1	1	0	5	3	1	4	3	1	4	5	1	1	0	7	1	0	0	0	0	0	1		
Sujawal	5	1	1	0	7	3	1	1	0	5	2	0	1	0	3	2	0	2	2	0	2	2	1	1	0	4	1	1	0	0	0	0	2		
Dadu	11	3	2	1	17	7	2	2	0	11	4	1	1	0	6	5	1	6	5	1	6	6	2	2	0	10	1	1	0	0	0	0	2		
Jamshoro	6	1	2	0	9	3	1	1	0	5	2	1	1	0	4	3	1	4	3	1	4	4	1	1	0	6	1	1	0	1	0	0	3		
Sub-Total	84	21	21	6	132	49	13	17	1	80	36	9	13	1	59	37	13	50	31	9	40	48	12	17	1	78	12	5	1	6	1	0	25		
MIRPURKHAS DIVISION																																			
Mirpurkhas	10	2	2	1	15	6	1	2	0	9	4	1	1	0	6	4	1	5	4	1	5	6	2	2	0	10	1	1	0	1	0	0	3		
Umerkot	6	2	2	0	10	3	1	1	0	5	2	1	1	0	4	3	1	4	3	1	4	5	1	1	0	7	1	1	0	0	0	0	2		
Tharparkar	9	2	2	1	14	5	1	1	0	7	4	1	1	0	6	4	1	5	4	1	5	6	1	2	0	9	1	1	0	1	0	0	3		
Sub-Total	25	6	6	2	39	14	3	3	1	21	10	3	2	1	16	11	3	14	11	3	14	17	4	4	1	26	4	2	0	1	1	0	8		
SHAHEED BENAZIRABAD DIVISION																																			
Shaheed Benazir Abad	11	3	2	1	17	6	1	2	0	9	5	1	1	0	7	5	1	6	5	1	6	6	1	2	0	9	1	1	0	0	0	0	2		
Noushehro Feroze	10	3	2	1	16	6	2	2	0	10	4	1	1	0	6	5	1	6	5	1	6	6	2	2	0	10	1	1	0	0	0	0	2		
Sanghar	13	3	3	1	20	7	2	2	0	11	5	1	1	0	7	6	1	7	6	1	7	7	2	2	0	11	2	1	0	1	0	0	4		
Sub-Total	34	9	8	2	53	19	5	5	1	30	14	3	2	1	20	15	4	19	16	3	19	19	5	5	1	30	5	2	0	1	0	0	8		
SUKKUR DIVISION																																			
Sukkur	10	2	2	1	15	5	1	1	0	7	4	1	1	0	6	4	1	5	4	1	5	5	1	2	0	8	1	1	0	0	0	0	2		
Ghotki	10	3	2	1	16	6	1	2	0	9	3	1	1	0	5	4	1	5	4	1	5	5	1	2	0	8	1	1	0	0	0	0	2		
Khairpur	16	4	4	1	25	8	2	2	1	13	6	2	2	0	10	7	2	9	7	2	9	8	2	2	1	13	1	1	0	1	0	0	3		
Sub-Total	36	9	9	2	56	18	5	5	1	29	14	3	3	1	21	15	4	19	15	4	19	18	4	6	1	29	4	2	0	1	0	0	7		
LARKANA DIVISION																																			
Larkana	10	2	2	1	15	5	1	2	0	8	3	1	1	0	5	4	1	5	4	1	5	6	2	2	0	10	1	1	0	1	0	0	3		
Qambar/Shahdad .Kot	9	2	2	1	14	5	1	1	0	7	4	1	1	0	6	4	1	5	4	1	5	6	1	2	0	9	1	1	0	0	0	0	2		
Shikarpur	9	2	2	1	14	5	1	1	0	7	4	1	1	0	6	4	1	5	4	1	5	5	1	2	0	8	1	1	0	1	0	0	3		
Jacobabad	7	2	2	0	11	4	1	1	0	6	2	1	1	0	4	3	1	4	3	1	4	4	1	1	0	6	1	1	0	0	0	0	2		
Kashmore	7	2	2	0	11	3	1	1	0	5	3	1	1	0	5	3	1	4	3	1	4	4	1	1	0	6	1	0	0	0	0	0	1		
Sub-Total	42	10	10	3	65	22	5	5	1	33	17	4	4	1	26	18	5	23	18	5	23	25	6	6	2	39	6	3	0	1	1	0	11		
Karachi Division	5	1	2	0	8	2	0	1	0	3	2	0	1	0	3	2	1	3	2	1	3	2	0	1	0	3	1	1	0	0	0	0	2		
Grand Total	226	56	56	15	353	123	32	35	6	196	92	23	26	4	145	98	30	128	93	25	118	128	32	39	6	205	31	14	2	10	3	1	61		

TABLE-9**FACULTY WISE DISTRIBUTION OF MERIT SEATS OF BS PROGRAMS IN DIFFERENT DISCIPLINE FOR VARIOUS DIVISIONS OF SINDH. R = RURAL U= URBAN AT MAIN CAMPUS SAU**

Division	Faculty of Animal Husbandry & Veterinary Sciences									Faculty of Agricultural Engineering						Information Technology Centre						Faculty of Agricultural Social Sciences			Grand Total			
	BS (Fisheries & Aquaculture)			BS (Dairy Technology)			BS (Poultry Sciences)			BS (Environmental Sciences)			BS (Agro-Industrial Engineering Technology)			BS (Computer Sciences)			BS (Software Engineering)			BS (English Language & Literature)						
	R	U	Total	R	U	Total	R	U	Total	R	U	Total	R	U	Total	R	U	Total	R	U	Total	R	U	Total		R	U	Total
Hyderabad Division	12	5	17	12	5	17	12	5	17	17	7	24	17	7	24	12	5	17	12	5	17	12	5	17	12	5	17	150
Mirpurkhas Division	4	2	6	4	2	6	4	2	6	6	3	9	6	3	9	4	2	6	4	2	6	4	2	6	4	2	6	54
Shaheed Benazir Abad Division	6	2	8	6	2	8	6	2	8	8	3	11	8	3	11	6	2	8	6	2	8	6	2	8	6	2	8	70
Sukkur Division	6	2	8	6	2	8	6	2	8	8	3	11	8	3	11	6	2	8	6	2	8	6	2	8	6	2	8	70
Larkana Division	6	3	9	6	3	9	6	3	9	9	4	13	9	4	13	6	3	9	6	3	9	6	3	9	6	3	9	80
Karachi Division	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	16
Grand Total	35	15	50	35	15	50	35	15	50	49	21	70	49	21	70	35	15	50	35	15	50	35	15	50	35	15	50	440

TABLE-10

FACULTY WISE BREAKUP OF SEATS FOR VARIOUS CATEGORIES AT MAIN CAMPUS

Categories	B. Sc (Agri.) Hons.			B.E. (Agri)	DVM	BSIT. (Hons.)	B.Sc.(Hons.) IFST	Grand 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	
Hyderabad Division	132	80	59	50	40	78	25	464
Mirpurkhas Division	39	21	16	14	14	26	8	138
Shaheed Benazir Abad Division	53	30	20	19	19	30	8	179
A 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)	353	196	145	128	118	205	61	1206
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
Candidates Possessing Diploma of Associate Engineer (Civil, Electrical, Mechanical & Chemical) (Sindh Province)	0	0	0	5	0	0	0	5
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
B Azad Jammu & Kashmir	0	0	0	0	7	0	0	7
FATA	1	1	1	0	0	1	1	5
Punjab	2	2	2	2	0	2	2	12
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)	63	51	51	38	60	38	28	329
C Self-Finance Seats (C)	36	32	23	9	56	30	7	193
D Sports Seats (Sindh Province)	5	5	5	4	0	5	2	26
E Sports seats reserved for girls (Sindh Province)	1	0	1	1	0	1	0	4
Total (A+B+C+D+E)	458	284	225	180	234	279	98	1758

- Note:**
1. The vacant seats on different quotas shall be distributed as per policy within the districts of Sindh province.
 2. 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.
 3. 50% of the self-finance seats are reserved for Sindh province and 50% for other Provinces.

TABLE-11**DISTRICT WISE DISTRIBUTION OF MERIT SEAT FOR
SHAHEED ZULFIQAR ALI BHUTTO AGRICULTURAL COLLEGE (SZABAC), DOKRI**

Sr. No.	DISTRICT	URBAN	RURAL	TOTAL
SUKKUR DIVISION				
1	Sukkur	3	14	17
2	Ghotki	3	13	16
3	Khairpur	4	18	22
Sub-Total		10	45	55
SHAHEED BENAZIRABAD DIVISION				
4	Shaheed Benazir Abad	3	13	16
5	NoushehroFeroze	4	16	20
Sub-Total		7	29	36
LARKANA DIVISION				
6	Larkana	5	20	25
7	Qambar/ShahdadKot	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	-	-	3
13	Employees Quota	-	-	3
14	Self-Finance	-	-	5
15	Sports Quota	-	-	2
Sub-Total		0	0	13
Grand Total				200

TABLE-12

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

Sr. No.	District	B.E. (Agri.)			B.Sc. (Agri.) Hons. (Biotechnology)			B.Sc (Hons.) (IFST)			Grand Total
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	
SUKKUR 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
SHAHEED BENAZIRABAD DIVISION											
4	Shaheed Benazir Abad (Nawab shah)	1	1	2	-	1	1	-	1	1	4
5	NoushehroFeroze	1	2	3	1	1	2	1	1	2	7
6	Sanghar	-	1	1	-	1	1	-	1	1	3
Sub Total		2	4	6	1	3	4	1	3	4	14
LARKANA DIVISION											
7	Larkana	1	2	3	1	1	2	1	1	2	7
8	Qambar/ShahdadKot	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
MIRPURKHAS DIVISION											
12	Mirpurkhas (Division)	-	-	2	-	-	2	-	-	2	6
Sub Total		0	0	2	0	0	2	0	0	2	6
HYDERABAD DIVISION											
15	Hyderabad (Division)	-	-	5	-	-	3	-	-	3	11
Sub Total		0	0	5	0	0	3	0	0	3	11
KARACHI DIVISION											
23	Karachi	1	-	1	1	-	1	1	-	1	3
Sub Total		1	0	1	1	0	1	1	0	1	3
VARIOUS QUOTA/CATEGORIES											
Girls Quota				2	-	-	1	-	-	1	4
Employees Quota				2	-	-	1	-	-	1	4
Special Persons				2	-	-	1	-	-	1	4
Sub Total		0	0	6	0	0	3	0	0	3	12
Grand Total		11	19	43	9	13	30	9	13	30	103

TABLE-13

**DIVISION AND DISTRICT WISE ALLOCATION/DISTRIBUTION OF SEATS FOR
SINDH AGRICULTURE UNIVERSITY SAU CAMPUS UMERKOT**

Sr. No.	District	B.Sc. (Agri.) Hons.			BSIT. (Hons.)			Grand Total
		Urban	Rural	Total	Urban	Rural	Total	
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
SHAHEED BENAIZIRABAD DIVISION								
4	S. B. Abad	0	1	1	1	1	2	3
5	Nousheero 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
LARKANA DIVISION								
7	Larkana	0	1	1	1	1	2	3
8	Qambar/ ShahdadKot	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
MIRPURKHAS DIVISION								
12	Mirpurkhas	2	6	8	2	8	10	18
13	Umerkot	3	9	12	3	14	17	29
14	Tharparkar	2	6	8	2	9	11	19
Sub Total		7	21	28	6	26	38	66
HYDERABAD DIVISION								
15	Hyderabad	1	1	2	1	1	2	4
16	Matlari	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
Sub Total		1	9	10	9	13	22	32
KARACHI DIVISION								
24	Karachi	1	0	1	1	1	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
Sports		-	-	2	-	-	1	3
Sub Total		-	-	11	-	-	20	31
Grand Total		10	43	64	28	58	106	170

TABLE-14

**DISTRIBUTION OF MERIT SEATS OF BS PROGRAMS IN DIFFERENT DISCIPLINE FOR VARIOUS DIVISIONS OF SINDH.
R = RURAL U= URBAN AT CONSTITUENT COLLEGE/CAMPUS**

Division	Khairpur College of Agricultural Engineering			Sindh Agriculture University SAU Campus Umerkot						Grand Total
	BS (Software Engineering)			BS (English Language & Literature)			BS (Software Engineering)			
	R	U	Total	R	U	Total	R	U	Total	
Hyderabad Division	12	5	17	12	5	17	12	5	17	51
Mirpurkhas Division	4	2	6	4	2	6	4	2	6	18
Shaheed Benazir Abad Division	6	2	8	6	2	8	6	2	8	24
Sukkur Division	6	2	8	6	2	8	6	2	8	24
Larkana Division	6	3	9	6	3	9	6	3	9	27
Karachi Division	1	1	2	1	1	2	1	1	2	6
Grand Total	35	15	50	35	15	50	35	15	50	150

TABLE: DETAILS 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 Municipality d) Sanjhoru Municipality
23.	Karachi