

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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## Vice Chancellor's Message

Dear Prospective Students,

I extend my heartfelt appreciation to you for selecting Muhammad Nawaz Shareef University of Agriculture Multan as your destination for undergraduate education. With a decade-long experience of excellence and dedication, we continue to disseminate high-quality educational training to transform our students into future leaders. Over the course of a mere decade of establishment, we have achieved remarkable milestones, becoming one of the fastest-growing universities in Pakistan.

At MNS University of Agriculture, Multan, we hold a deep-rooted belief in the transformative power of education. Our unwavering dedication to educational leadership is evident in the quality of academic programs we offer, which are meticulously designed to be of the highest quality and relevance to both national and regional development. Your pursuit of knowledge and commitment to your studies serves as the driving force behind our continuous endeavors to excel. From its modest beginnings, our university has grown exponentially, with state-of-the-art teaching laboratories, research farms, student residences and a well-equipped Graduate Labs Block. We have made significant investments in developing our infrastructure to provide you with the best possible facilities in terms of agricultural research, education, and services.

Diversity lies at the very core of our purpose at MNSUAM. To promote a rich tapestry of ideas and experiences, we strive to embrace and celebrate the diverse viewpoints and





backgrounds of our students and teachers. At MNSUAM, we are committed to fostering an environment where each person feels appreciated, respected, and motivated to reach their best potential. We firmly believe that promoting creativity, innovation, and knowledge requires a diverse and inclusive learning environment.

Our esteemed academic team comprises of indigenous and foreign qualified faculty members, who are specialists in their respective domains and committed to providing high-quality education, which is something we are proud of. Through their guidance and mentorship, we strive to instill in our students a desire for lifelong learning, critical thinking, and problem-solving skills. Students are encouraged to explore alternative perspectives and acquire a broad spectrum of knowledge through our emphasis on interdisciplinary learning, internship, and research. It is due to the excellent performance in education and research that MNSUAM shines prominently at the international university rankings.

In addition to supporting multidisciplinary research and study, we recognize the value of entrepreneurship in today's competitive market. For students to succeed on personal and professional levels, we firmly believe that it is essential to support the development of an entrepreneurial mind and skillset. The presence of business incubation center at the university, which has successfully incubated multiple startups by our current students, indicates our dedication and commitment to this cause.

We understand that a university experience encompasses more than just academics, so we offer a wide range of student support services, including academic advising, career counseling, and mentoring programs, to ensure our students' holistic development. In addition to the aforementioned, we offer Studentship scenarios for our students which not only equip them with a unique professional skill set to add to their resume but also facilitate them financially. Our campus facilities and resources are designed to promote student well-being and create a nurturing environment conducive to their growth and success. The extracurricular activities, sports facilities, cultural events, and artistic programs provide a vibrant campus community to the students. Moreover, our esteemed alumni have made outstanding progress, and they continue to forge strong connections with our current graduates.

Finally, I encourage you to explore the opportunities that MNS University of Agriculture Multan, Pakistan, has to offer. We appreciate your interest in our university as a hub for higher education. We are looking forward to welcoming you as a member of our lively community and supporting you on your journey of academic and personal development.

Good luck!

**Prof. Dr. Ishtiaq Ahmad Rajwana**  
Vice Chancellor MNSUAM



*Mandina-tu-Aulya*

# MULTAN

*3,721 square kilometers*



**950 km**

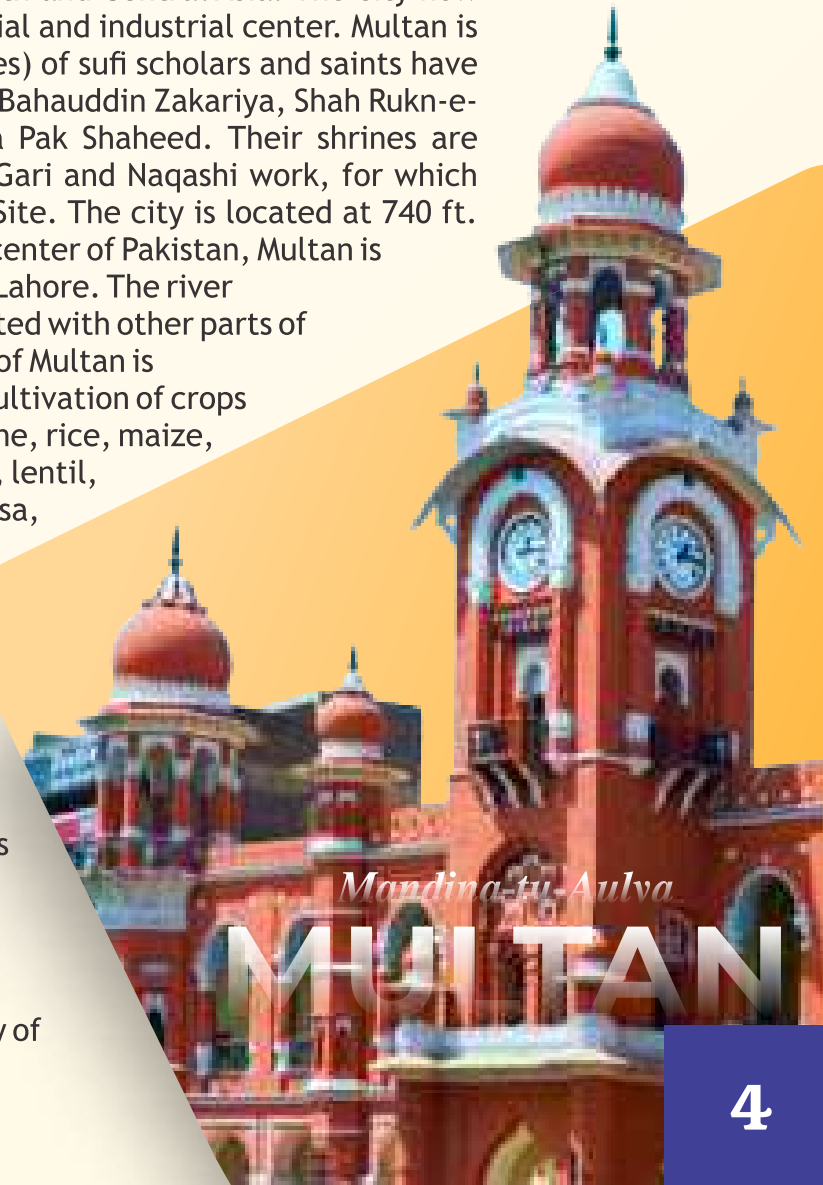


**630 km**



**356 km**

Multan has remained a center of learning, culture and civilization from ancient times. It is one of the oldest living cities in the world. A Chinese traveler, Hiuen Tsang, visited this city in 641 A.D. and mentioned its name as 'Mu-lo-san-pu-lu', a translation of 'Mulasthana-Pura'. The famous Iranian scholar, AlBeruni came to this city with his master, Sultan Mahmud Ghaznavi, in 1015 A.D., and referred to it as 'Mulatana'. Other historians namely Masudi (915 A.D.) and Ibn-eBatuta (1334 A.D.) also wrote about the city in their travelogues. For centuries, Multan has served as a trade hub between South and Central Asia. The city now stands as a combination of old and new Pakistan culture and has developed into a commercial and industrial center. Multan is also known as "Mandina-tu-Aulya", the city of saints. Several tombs and "Khanqahs" (hospices) of sufi scholars and saints have become the architectural landmark of this city. Some eminent saints buried here are Hazrat Bahauddin Zakariya, Shah Rukn-e-Alam, Shamsuddin Sabzwari (also known as Shah Shams), Shah Yousaf Gardez and Musa Pak Shaheed. Their shrines are beautifully decorated and ornamented with blue tiles, mosaic work and delightful Kashi Gari and Naqashi work, for which Multan is famous. The tomb of Shah Rukn-e-Alam is on the list of UNESCO World Heritage Site. The city is located at 740 ft. above sea level and spread over an area of 3,721 square kilometers. Positioned almost in the center of Pakistan, Multan is at an approximate distance of 950 km from Karachi, 630 km from Islamabad and 356 km from Lahore. The river Chenab is flowing in the west of Multan at a distance of six kilometers. The City is well connected with other parts of the country via excellent road and rail network and an International Airport. The vast plain of Multan is dissected by numerous canals and water channels, which make its soil ideal for agriculture, cultivation of crops and growing fruits and vegetables. The major crops of Multan include wheat, cotton, sugarcane, rice, maize, sunflower, fodder crops etc., minor crops involve rapeseed and mustard, pulses i.e. chickpea, lentil, mung bean and mush bean etc., whereas mango, citrus, guava, date-palm, pomegranate, falsa, jujube, banana, strawberry and grapes are among popular fruits grown in the area. Multan is called the city of Mangoes for a reason, as its stiflingly hot climate provides the fruit a perfect environment to ripe into juiciest, thickest and the most aromatic mangoes in the world. Some popular varieties of Multani mangoes are 'Anwar Ratole', 'Langra', 'Dusehri' and 'Chaunsa'. Each of them is different in taste, size and quality of pulp. Multani Sohan Halwa, made of sugar, desi ghee and wheat flour and garnished with nuts and pistachios, is a special dessert, that every visitor to Multan takes with him as a compulsory item. Beautiful blue tiles, blue pottery, Multani Khussa (shoes), embroidered clothes for men and women and camel skin wares and camel bone jewelry are some other designated products of Multan. The reminiscence of old Multan city around the fort with its six gates give a glimpse to the visitors of its past glory. The new city has all hustle and bustle of a modern habitat, with wider roads, overhead bridges, glass showcased shops of electronics, furniture and clothes, busy markets, desi and fast food restaurants etc. All facilities like hospitals, schools, colleges, universities, banks, parks and other public utilities are available in the city. Majority of Multani people speak Saraiki language, but Punjabi and Urdu are also widely spoken.



# MNSUAM

## at a *GLANCE*



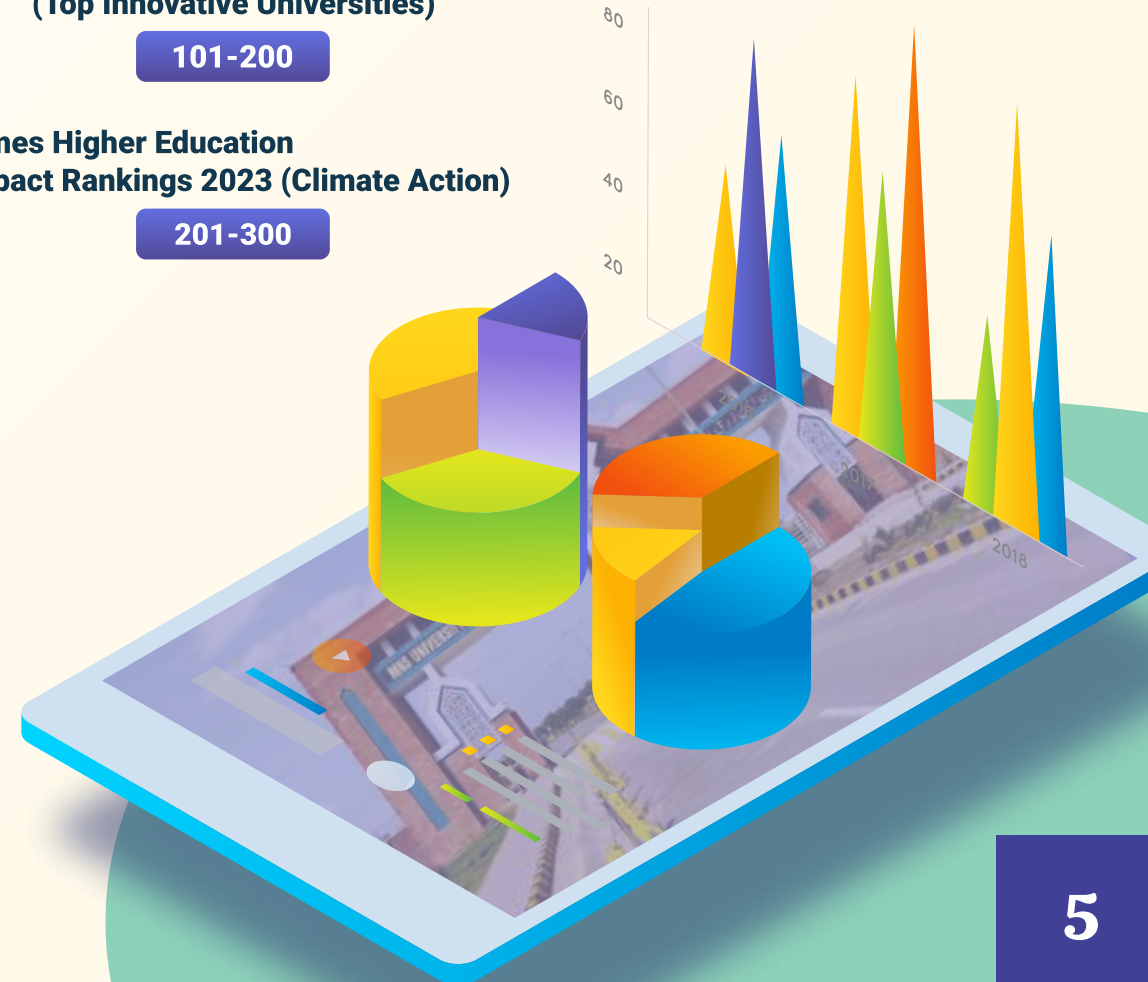
<b>Students Enrollment</b>	<b>5975</b>
<b>Degree Programs</b>	<b>Undergraduate 28   Postgraduate 33</b>
<b>Faculty Strength</b>	<b>148</b>
<b>Students Societies/ Clubs</b>	<b>20</b>
<b>MoUs/ Agreements</b>	<b>155</b>
<b>Transportation</b>	<b>Buses 06   High Roof 02   Coaster 01</b>
<b>Accommodation Facility</b>	<b>Boys Hostel 01   Girls Hostel 01   Guest House 01</b>
<b>Skill Development</b>	<b>9.43 Million PKR</b>
<b>Library (Books)</b>	<b>5721</b>
<b>Computer Labs</b>	<b>05</b>
<b>Scholarships/ Stipends</b>	<b>39.51 Million PKR</b>
<b>Research Journal</b>	<b>01</b>
<b>Research Publications</b>	<b>274</b>
<b>Ongoing Research Projects</b>	<b>National 30   International 10   Industry 12</b>
<b>Conferences/Seminars/ Webinars</b>	<b>139</b>
<b>Faculty Development Trainings</b>	<b>34</b>

**World University with Real Impact Rankings 2023 (Top Innovative Universities)**

**101-200**

**Times Higher Education Impact Rankings 2023 (Climate Action)**

**201-300**





The MNS University of Agriculture, Multan (MNSUAM) is an HEC recognized higher education institution established in 2012. Within a short span of time, the University has made rapid progress in terms of expanding its academic programs, students' enrolment, physical infrastructure, campus network, and hiring highly qualified and experienced academic and administrative staff. As a matter of fact, MNSUAM is considered as one of the fastest growing academic institutions of Pakistan, which is evident in the reports and comments made by officials from HEC, NAEAC, Agriculture Department, Representatives of the Government, and local and foreign experts, who visit the varsity from time to time. The main campus of the University is located at Old Shujabad Road, Multan, neighboring several different wings and formations of Punjab Agriculture Department positioned within a radius of 2-3 kilometers. These include Mango Research Institute, Central Cotton Research Institute, Cotton Research Station, Agricultural Mechanization Research Institute, Soil and Water Testing Laboratory, Directorate of Water Management, Agricultural Extension Wing, Pest Warning and Quality Control of Pesticides, Fisheries Department, Federal Seed Certification and Registration Department. All these offices and the University have combined into an "Agriculture Complex" with a common agenda of facilitating the farming community of the region. The University's main campus is spread on an area of 180 acres at a prime location in Multan and consists of purposefully built buildings including Academic Block, Administration Block, Girls and Boys hostels, Library, Faculty and Staff residences etc. For carrying out agricultural research activities, the University has established a separate graduates block, centralized labs system, agricultural farms at the main campus as well as at Jalalpur Pirwala comprising 500 acres. Over the years, the University has introduced several new degree programs to provide multidisciplinary education to the students with innovative approaches. Besides Bachelor's level degree programs in Agriculture, Agribusiness, Computer Science and Information Technology, the University also offers F.Sc. Pre-Agriculture, and M.Sc. and Ph.D in various disciplines of Agricultural Sciences. The University has also started B.Sc. (Hons.) Human Nutrition and Dietetics, B.Sc. (Hons.) Poultry Science, B.Sc. Agro-industrial Engineering Technology, whereas 6 new undergraduate degree programs and 5 MS/M.Sc./PhD programs are being initiated this year. The University has strengthened its teaching resources by hiring new qualified faculty through regular, TTS and IPFP appointments following a transparent and rigorous process of recruitment. The administrative offices have also been manned with qualified and experienced staff members to provide necessary support to the University for carrying out its functions. The University has instituted a Center for Agricultural Sustainability in South Punjab (CAS-SP) and Department of Outreach and Continuing Education this year to strengthen its research and outreach initiatives. The Office of Research, Innovation and Commercialization (ORIC) is working for capacity building of the faculty for enhancing research activities. The Quality Enhancement Cell (QEC) is mandated to ensure quality teaching and research through continuous assessment for better outcomes. The Directorate of Students Affairs provides all necessary support to students with respect to their admission, selection of subjects, registration, financial support etc., whereas the Career Development Center helps them and suitable jobs after completion of their degrees. It is worth mentioning here that the University manages more than 60 percent of its final semester internships as paid internships which provide an excellent learning environment to the young graduating students.

Furthermore, overwhelming employability of MNSUAM graduates in the private sector shows the competitive strength of the university graduates. The University regularly conducts national and international events including conferences, seminars, workshops, and festivals. Some activities have now become the trademark of this University such as Dice AFS, Sino-Pak International Cotton Conference, Climate Smart Agriculture Conference, Smart Plant Protection Conference, Spring Festival, Kisan Mela, Fish Mela, Annual Cotton Seminar and Mango Festival. The University has the honor of among the top 5 teams in the national Microsoft Imagine Cup during the last two consecutive years. Acknowledging the efforts for developing a Sustainable Campus, the UI GreenMetric World University Rankings 2023 has ranked MNSUAM at number 1 among the universities across Pakistan. With a vision to highlight a positive image of our country onto the canvas of the world and lure international markets for bilateral trade, investment and business, the University is actively playing its part to explore new horizons for economic betterment of Pakistan.



# UNIVERSITY ADMINISTRATION

*“the team beyond the success”*

The Syndicate is the highest executive body of the University, while Academic Council, Selection Board, Finance and Planning Committee, Board of Advanced Studies and Research, Board of Faculty, and Departmental Board of Studies are the other statutory bodies of the University. The administrative setup of the University is as follows:

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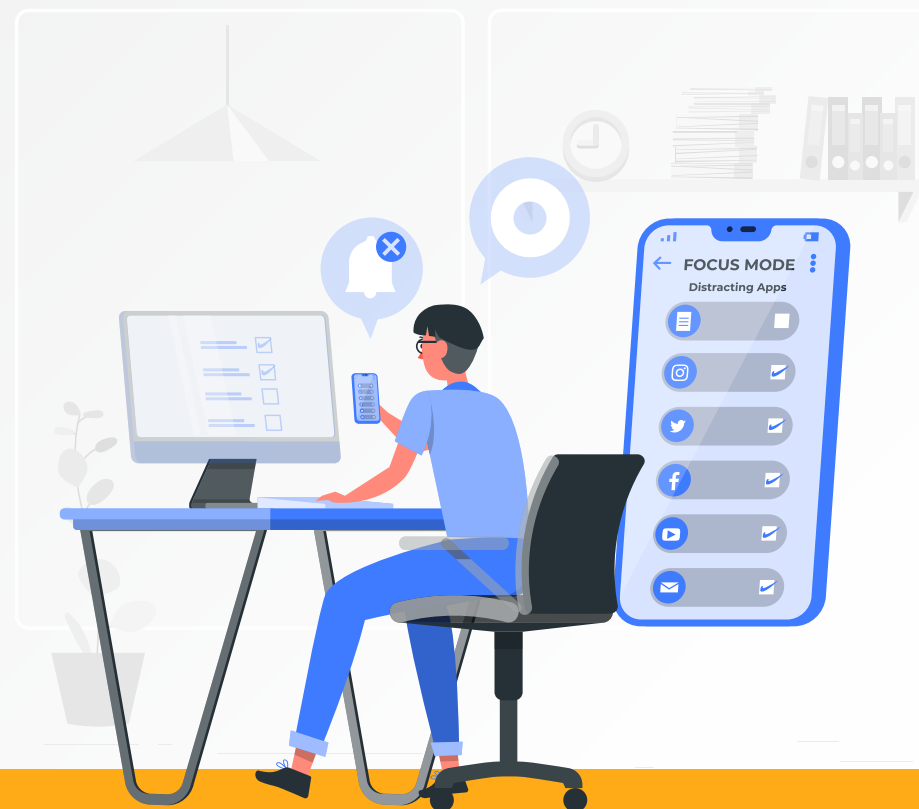
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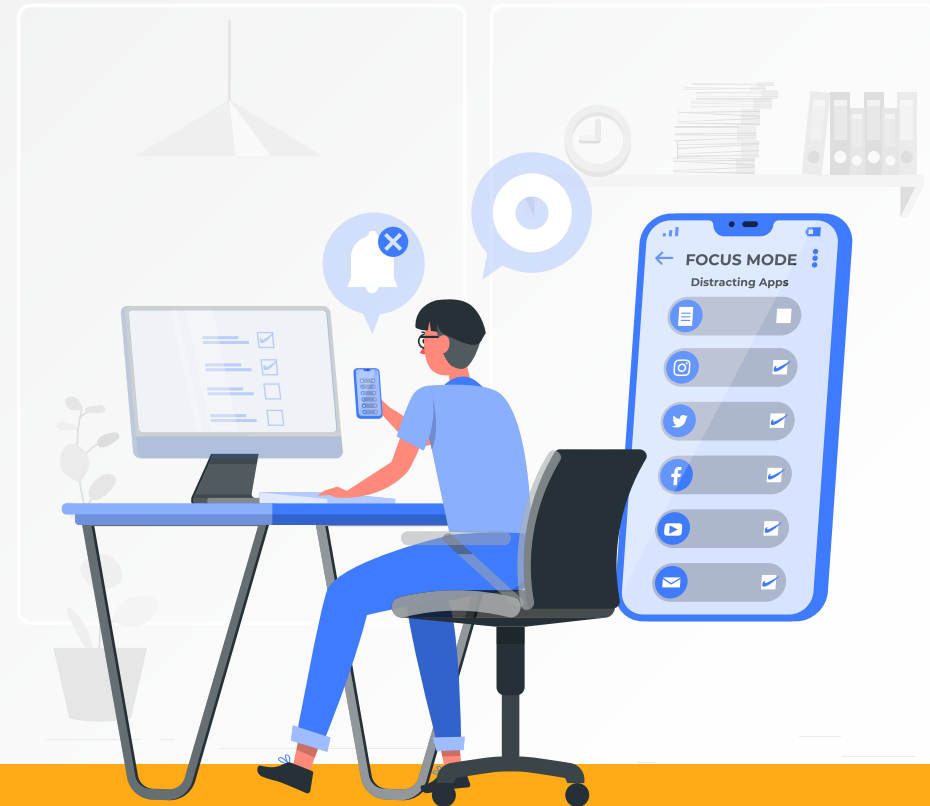
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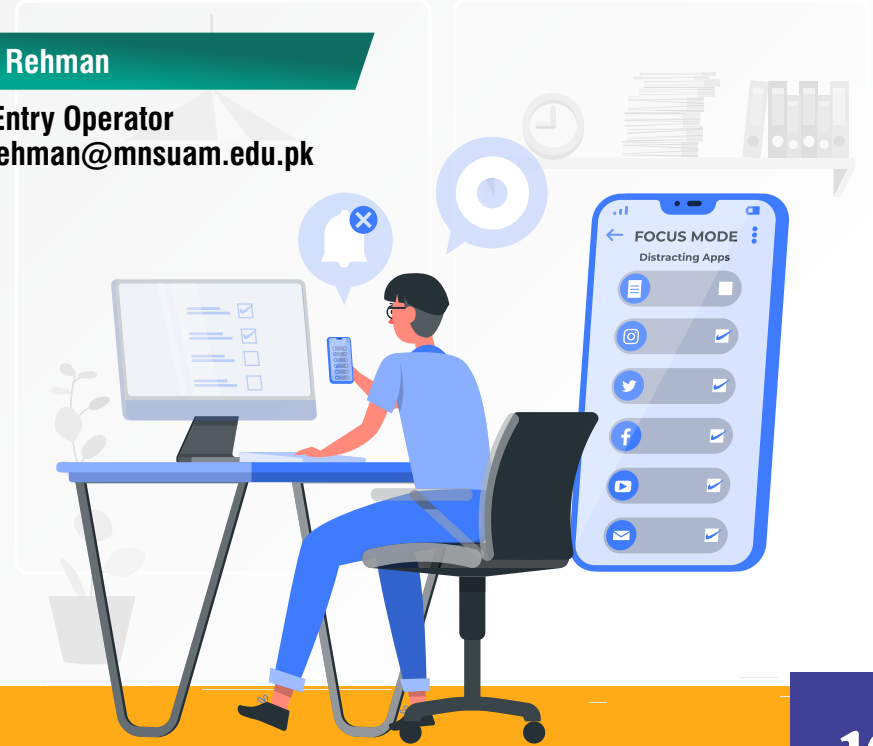


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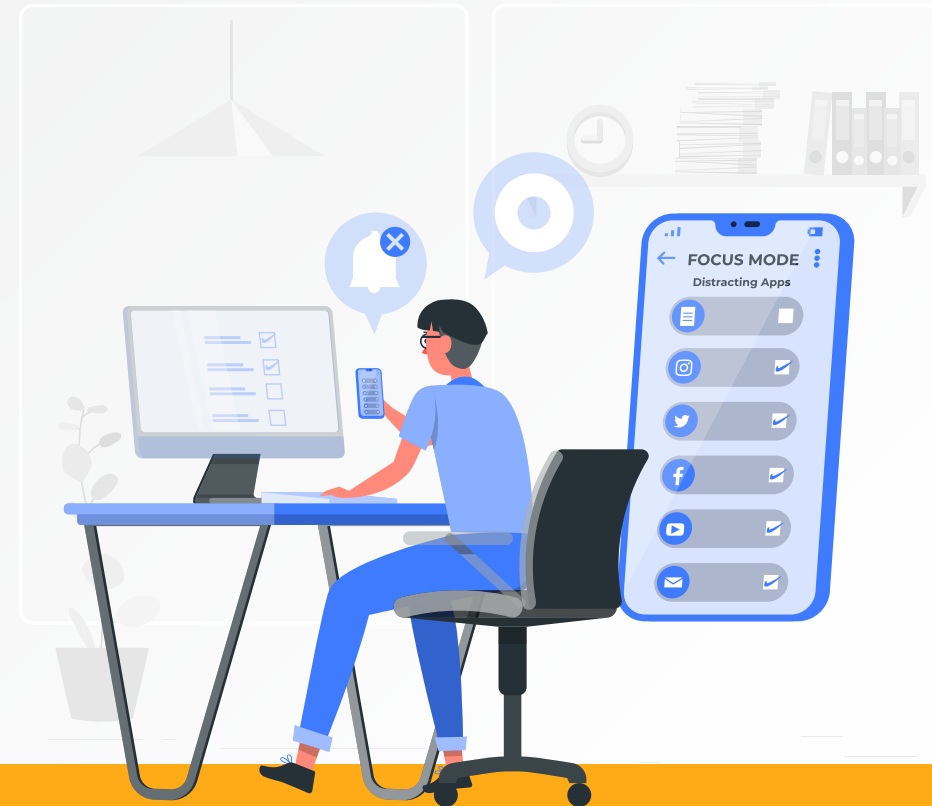
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# Faculty of Agriculture & Environmental Sciences

1. Department of Agronomy
2. Department of Forestry and Range Management
3. Department of Horticulture
4. Department of Soil and Environmental Sciences
5. Institute of Plant Breeding and Biotechnology
  - Plant Breeding and Genetics
  - Seed Science and Technology
  - Biotechnology
6. Institute of Plant Protection
  - Entomology
  - Plant Pathology

## DEAN'S MESSAGE

Dear Students! Welcome to the Faculty of Agriculture and Environmental Sciences (FAES). FAES is one of the pioneer faculties in the University and comprises of two institutes and four departments. Our faculty members are committed to taking all challenges as an opportunity through teaching and research. We believe in problem-oriented research for the betterment of our society. We love exploring innovative approaches and collaborating with national and international institutes. Our research focuses on healthy and viable seed production, improving soil health for sustainable crop production, development of improved crop varieties along with advanced cultural practices, climate-smart cropping systems, sustainable weed management, insect toxicology, pesticide resistance, integrated pest management, drip irrigation system, hydroponics, tunnel farming, agro-forestry, pre-and post-harvest technologies of crops and fruits. Whether there is disease outbreak in crop plants, insect pest epidemics, or any other agricultural issue, we always stay alert and proactive in providing intellectual advisory to policymakers to ensure national food security. Our core motive is to produce a creative environment where students can get skill-based knowledge in the disciplines of agriculture and environmental sciences to embrace future challenges in the best possible way. We also aim to produce qualified professionals, critical thinkers, and researchers who will serve the nation in quest of a knowledge-based economy. Together with our stakeholders, we are making strides towards our goal of transforming this University into a world-class institute. Join us for your better future!

The Faculty of Agriculture and Environmental Sciences (FA&ES) was established in 2015 as the first faculty in MNS-University of Agriculture, Multan. The faculty has energetic team of 66 full time faculty members (50 PhD and 16 Non PhD) with diverse background and academic experiences at top universities in Australia, China, Germany, Korea, Singapore, UK, USA etc. The faculty members have published more than 750 research papers and won more than 50 projects from national and international funding agencies like Higher Education Commission, Punjab Agriculture Research Board, Agricultural Linkages Program, Punjab Skill Development Fund, Prime Minister Youth Development Fund, USAID, Australian Centre for International Agricultural Research (ACIAR), and DAAD Germany. In FA&ES, there are 68 students enrolled in Ph.D., 392 students in M.Sc. (Hons.) and 1394 students in B.Sc. (Hons.) Agriculture. The learning system of the faculty is based on modern lines can be easily switched on physical and online classes. The flexible teaching system in which courses offered in module system with blended learning approaches makes the faculty a step ahead during COVID-19 Pandemic crises.



**Prof. Dr. Shafqat Saeed**

Dean, Faculty of Agriculture and Environmental Sciences



# DEPARTMENT OF AGRONOMY



# DEPARTMENT OF AGRONOMY



The Department of Agronomy is excelling to earn a reputation of excellence in outcome-based agronomic education with a focus on problem-oriented research related to crop production and soil management under a changing climate scenario. A dedicated and highly qualified faculty, having hands-on experience in agronomic teaching and research at national and international institutes, makes it one of the most accomplished departments in the University. So far, the Department of Agronomy at MNS-University of Agriculture, Multan has published more than 350 international publications in referred journals, won 15 research projects and submitted several others competitive grants. The Department also organizes international workshops and seminars on contemporary issues of agriculture in a changing climate scenario. Advisory services to farmers are also being provided. The Department has all the basic facilities like lecture rooms, well-equipped research laboratories, text books and reference materials for undergraduate and postgraduate degree programs. The students are blessed with diverse learning facilities ranging from lectures to interactive tutorials, brain storming sessions and field work involving advanced audio-visual aids, and paid internships.



## VISION

To achieve excellence in agronomic education and provide leadership with focus on problem-oriented research related to sustainable crop production and soil management for the development of the farming community.



## MISSION

To provide technically trained human resources in the field of Agronomy with disciplinary knowledge to cope with crop production under dwindling natural resources and climate change.





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# DEPARTMENT OF HORTICULTURE



**B.Sc. (Hons.)**  
Agriculture major in Forestry

The Department comprises of young, energetic and motivated faculty, staff as well as research team having diverse experience and strong commitment towards teaching, research and outreach. The Departmental faculty consists of a professor, two associate professors, three assistant professors, and three lecturers: all having rich teaching and research experience together with numerous publications in national and international peer-reviewed journals and conferences proceedings.

The department offers degree programs in B.Sc. (Hons.), M.Sc. (Hons.) and Ph.D. with specialization in Horticulture subject. The curriculum of these degree programs is regularly reviewed and revised keeping in view the HEC guidelines, needs of a farming community and global developments which is duly approved through statutory bodies. The Department was established in 2015.

The department was established during 2015; and until 2023, two hundred and thirty-two (232) undergraduate and fifty-seven (57) master level students have received their degrees from department. Currently, eleven (11) PhD, twenty-two (22) masters and sixty-seven (67) undergraduate students are enrolled in the department.

As far as research and development are concerned; various projects of worth Rs. 30 million are under progress including, Optimizing production practices of pomegranate (Rs. 6.66 million); vegetable grafting (Rs. 3.4 million); certified mango nursery production project (Rs 6.7 millions); heavy metal phytoremediation (Rs. 3.5 Millions), supply chain management of jamun (Rs. 3 Millions) funded by HEC and



collection and import of exotic fruit and vegetable germplasm (Rs. 6.5 million) funded by PARB Lahore; while projects worth Rs. 12.0 million have been completed during last 3-4 years.

The Department is actively involved in outreach activities for farming communities and agro-industries. In this regard, the department has the pride to organize an annual mango festival in Multan to provide a platform to mango stakeholders including growers, exporters, processors, nursery owners, fertilizer companies/dealers, pesticide companies, banks and several other organizations etc. Moreover, the Departmental faculty has also taken lead in demonstrating the hydroponic and soilless cultivation of various horticultural crops. The major areas of research are mentioned below:

1. Germplasm Evaluation & Nursery Management
2. Adaptation of Crop Varieties
3. Micro-propagation through Tissue Culture
4. Post-harvest Science and Technology
5. Protected Cultivation (off-season & on-season crops)
6. Hydroponics/Soilless Culture Technology
7. Landscape Improvement and Designing

#### **B.Sc. (Hons.) Agriculture major in Forestry**

The importance and role of forests have increased dramatically over time as human cultures have developed and flourished. Thus, the program B.Sc. (Hons.) Agriculture major in Forestry was initiated in 2023 and currently, fifteen (15) undergraduate students are enrolled. Currently this major program is working under the umbrella of Department of Horticulture. The curriculum of the degree program is regularly reviewed and revised keeping in view the HEC guidelines, needs of farming community and global developments that is duly approved through statutory bodies.

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## DEPARTMENT OF SOIL & ENVIRONMENTAL SCIENCES

The economic prosperity, agricultural advancement, and sustainable growth of a country intricately hinge upon the potential of its soil and environment. The intricate nexus between soil quality, environmental conditions, and agricultural practices becomes a key indicator for fostering resilience, productivity, and ultimately, the overall development of the country. The interdependence of soil and life is undeniable, as they have evolved in tandem. A profound understanding of soil is crucial for achieving optimal crop production, effective natural resource management, sound climate change mitigation strategies, and robust environmental policy and protection.

In our department, we have a team of passionate, distinguished, and internationally qualified staff members. Additionally, our state-of-the-art laboratories serve as valuable resources for both teaching and research endeavors for the students and staff. Currently, department has following six research focused groups; 1) Saline Agriculture, 2) Soil Microbiology and Biochemistry, 3) Soil Fertility and Plant Nutrition, 4) Soil and Environmental Chemistry, 5) Soil Physics and 6) Climate Change. Department offers both undergraduate [B.Sc. (Hons.) Agriculture – Soil Science, B.Sc. (Hons.) Environmental Science] and postgraduate programs [M.Sc. (Hons.) Soil Science, M.Sc. (Hons.) Climate Change and Ph.D. Soil Science].

We roll up our sleeves and get our hands dirty to accomplish great things. Our under and postgraduate programs prepare students to address agricultural, environmental and climate change challenges in Pakistan and around the globe, and our focus is on the sustainable agriculture and food security. We train our graduates to collaborate with stakeholders for effective utilization of acquired knowledge and skills to shape better tomorrow. After graduation, our students serve in Public and Private sectors, research, academia, industry and advisory. We have managed to win 15 competitive grants of worth Rs. 35 million both from national and international funding agencies. We have also signed AOCs/MoUs with Shandong University in China, Fauji Fertilizers Company, Pakistan and Engro Fertilizers, Pakistan, Bulleh Shah Packages and Syngenta Pakistan for joint research ventures.

We have recently launched an outreach program aimed at establishing connections between the local farming community and researchers, with the objective of offering advisory services to farmers directly at their doorstep. Furthermore, we are actively engaged in providing consultancy services to fertilizer and pesticide industries to ensure compliance with ISO/IEC 17025 and 9001 international standards. We also arrange seminars, webinars, conferences, and workshops with the aim of disseminating the most up-to-date knowledge and facilitating the exchange of thought-provoking ideas.



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# INSTITUTE OF PLANT BREEDING & BIOTECHNOLOGY







# INSTITUTE OF PLANT BREEDING & BIOTECHNOLOGY

The Institute of Plant Breeding and Biotechnology (IPBB) at MNSUAM offers undergraduate and postgraduate degree programs in the subjects of Plant Breeding and Genetics, Seed Science and Technology and Biotechnology. The institute was established with the aim of developing improved crop varieties and improving seed systems through the integration of conventional plant breeding techniques with modern biotechnological tools. The institute has qualified faculty actively involved in developing the latest curriculum and promoting effective research and development activities in the University. The institute is running several research projects funded by national and international funding agencies including Agricultural Development Program (ADP), Govt. of the Punjab, Punjab Agricultural Research Board (PARB), Higher Education Commission (HEC), Agricultural Linkages Program (ALP), DFID, ACIAR and USAID. The Institute is also running a project for establishing "National Crop Genomics and speed Breeding Centre for Agriculture Sustainability" for conducting research focused on genetic improvement of crops using genomic techniques and speed breeding protocols shortening the duration of developing varieties with desirable traits. The institute has also initiated an outreach program for establishing linkages between the farming community, industry, and the researchers to solve the problems of the stakeholders. The institute frequently arranges seminars, conferences and workshops to discuss burning issues of agriculture and also to bring new research ideas for the young faculty and postgraduate students.



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# INSTITUTE OF PLANT PROTECTION

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## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester I-IV)

### SEMESTER-I

Course Code	Course Title	Credit Hours	Category
ENV-301	Introduction to Environmental Science	3(2-1)	General Education
GE-303	Functional English	3(3-0)	General Education
GE-407	Ideology and Constitution of Pakistan	2(2-0)	General Education
GE-305	Quantitative Reasoning (I)	3(3-0)	General Education
AEE-301	Introduction to Agri. Extension	2(1-1)	Interdisciplinary
AH-301	Introduction to Animal Husbandry	3(2-1)	Interdisciplinary
AGRON-301	Basic Agriculture	2(1-1)	Major
AGRON-303	Field Crop Production	2(1-1)	Major
<b>Total Credit Hours</b>		<b>20(15-5)</b>	

### SEMESTER-II

Course Code	Course Title	Credit Hours	Category
GE-403	Expository Writing	3(3-0)	General Education
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)	General Education
GE-309	Applications of Information and Communication Technologies	3(2-1)	General Education
GE-405	Quantitative Reasoning (II)	3(3-0)	General Education
FMP-405	Farm Mechanization	2(1-1)	Interdisciplinary
ID-304	Irrigation and Drainage Practices	2(1-1)	Interdisciplinary
HORT-302	Introductory Horticulture	3(2-1)	Major
SST-302	Fundamental of Seed Science and Technology	3(2-1)	Major
<b>Total Credit Hours</b>		<b>21(16-5)</b>	

### SEMESTER-III

Course Code	Course Title	Credit Hours	Category
GE-301	Social and Religious Tolerance	2(2-0)	General Education
RS-409	Rural Sociology and Development	2(2-0)	General Education
GE-402	Entrepreneurship	2(1-1)	General Education
AE-401	Principles of Agricultural & Resource Economics	3(3-0)	Interdisciplinary
MB-401	Basic Microbiology	3(2-1)	Interdisciplinary
BIOTECH-401	Introduction to Biotechnology and Molecular Genetics	3(2-1)	Major
FRW-401	Agro-Forestry, Range and Wildlife Management	3(2-1)	Major
<b>Total Credit Hours</b>		<b>18(14-4)</b>	

### SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
GE-404	Civics and Community Engagement	2(1-1)	General Education
ENT-402	General Plant Protection	3(2-1)	Major
PBG-402	Introductory Plant Breeding	3(2-1)	Major
PP-402	Introductory Plant Pathology	3(2-1)	Major
FST-402	Essentials of Food Science and Technology	3(2-1)	Major
AGRON-402	Principles of Agronomy	2(1-1)	Major
SES-402	Introduction to Soil Science	3(2-1)	Major
<b>Total Credit Hours</b>		<b>19(12-7)</b>	





## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture (Semester V-VIII)

# Major Agronomy

### SEMESTER-V (Students will opt for 3 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
AGRON-501	Agro-Ecology	3(2-1)	Major
AGRON-503	Irrigation Agronomy	3(2-1)	Major
AGRON-505	Field Crop Physiology	3(2-1)	Major
AGRON-507	Principles of Weed Science	3(2-1)	Major
AGRON-509	Sustainable Agriculture and Organic Farming	3(2-1)	Major
FME-503	Fundamentals of Precision Agriculture	2(1-1)	Interdisciplinary
<b>Sub-Total Credit Hours</b>		<b>17</b>	
AGRON-511	Global Agriculture	3(3-0)	Major (Elective)
AGRON-513	Crop Management under stressful Environments	3(2-1)	Major (Elective)
AGRON-515	Outreach in Agronomy-I	3(2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### Semester-VI (Students will opt for 5 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
AGRON-502	Seed Production Technology	3(2-1)	Major
AGRON-504	Arid and Rainfed Agriculture	3(2-1)	Major
AGRON-506	Agro-technology of Major Field Crops	3(2-1)	Major
AGRON-508	Plant Nutrients and Growth Regulators	3(2-1)	Major
AGRON-510	Biological Data Science	3(1-2)	Major
<b>Sub-Total Credit Hours</b>		<b>15</b>	
AGRON-512	Crop Growth Modeling and its Application in Agriculture	3(2-1)	Major ( Elective)
AGRON-514	Eco-Physiological aspects of Weeds	3(2-1)	Major (Elective)
AGRON-516	Layout of Field Experiments	2(0-2)	Major (Elective)
AGRON-518	Agro-technology of Special Crops	2(1-1)	Major (Elective)
AGRON-520	Outreach in Agronomy-II	3(2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### Semester-VII (Students will opt for 3 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
AGRON-601	Digital Agriculture	3(2-1)	Major
AGRON-603	Biological Crop Potential	3(2-1)	Major
AGRON-605	Conservation Agronomy	3(2-1)	Major
AGRON-607	Environment and Crop Production	3(2-1)	Major
AGRON-609	Farming Systems and Record Management	3(2-1)	Major
AGRON-611	Preparation of Research Project and Scientific Writing	2(1-1)	Major
<b>Sub-Total Credit Hours</b>		<b>17</b>	
AGRON-613	Application of Allelopathy in Agriculture	3(2-1)	Major (Elective)
AGRON-615	Plant and Soil Analysis	3(2-1)	Major (Elective)
AGRON-617	Spate Irrigated Agriculture	3(2-1)	Major (Elective)
AGRON-619	Medicinal and Special Crops	3(2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### Semester-VIII

Course Code	Course Title	Credit Hours	Category
AGRON-612	Internship	3(0-3)	Major
AGRON-614	Capstone Project	3(0-3)	Major
<b>Total Credit Hours</b>		<b>6</b>	



## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture (Semester V-VIII)

### MAJOR HORTICULTURE

#### SEMESTER-V (Students will opt 5 credit hours from major elective courses)

Course Code	Course Title	Credit Hours	Category
HORT-501	Principles of Fruit Production	3(2-1)	Major
HORT-503	Principles of Vegetable Production	3(2-1)	Major
HORT-505	Principles of Ornamental Crop Production	3(2-1)	Major
HORT-507	Medicinal and Aromatic Plants	2(1-1)	Major
HORT-509	Propagation and Nursery Management	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>14</b>	
HORT-511	Nutrient Management of Horticultural Crops	3(1-2)	Major (Elective)
HORT-513	Protected Horticulture	3(1-2)	Major (Elective)
HORT-515	Indoor Plant Culture and Scaping	2(1-1)	Major (Elective)
HORT-517	Outreach in Horticulture-I	2(1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>19</b>	

#### SEMESTER-VI (Students will opt 5 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
HORT-502	Tropical and Sub-Tropical Fruits	3(2-1)	Major
HORT-504	Summer Vegetables	3(2-1)	Major
HORT-506	Landscape Horticulture	3(2-1)	Major
HORT-508	In Vitro Propagation	2(1-1)	Major
HORT-510	Breeding of Horticultural Crops	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>14</b>	
HORT-512	Minor Fruit Crops	3(2-1)	Major (Elective)
HORT-514	Organic Horticulture Production and Certification	3(2-1)	Major (Elective)
HORT-516	Good Agricultural Practices in Horticulture	2(1-1)	Major (Elective)
HORT-518	Business Management in Horticulture	2(1-1)	Major (Elective)
HORT-520	Outreach in Horticulture-ii	2(1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>19 (12-7)</b>	

#### SEMESTER-VII (Students will opt 2 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
BIOCHEM-502	Chemistry and Fundamental Biochemistry	3(2-1)	Inter-disciplinary
HORT-605	Research Methods in Horticulture	3(2-1)	Major
HORT-607	Winter Vegetables	3(2-1)	Major
HORT-609	Commercial Flower Production	3(2-1)	Major
HORT-611	Preparation of Research Projects And Scientific Writing	2(1-1)	Major
HORT-613	Post-Harvest Horticulture	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>17</b>	
HORT-615	Temperate Fruits	2(1-1)	Major (Elective)
HORT-617	Vegetable and Flower Seed Production	2(1-1)	Major (Elective)
HORT-619	Food Safety in Horticultural Crops	2(1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>19 (12-7)</b>	

#### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
HORT-612	Internship	3(0-3)	Internship
HORT-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6(0-6)</b>	



## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester V-VIII) MAJOR FORESTRY

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
FRW-501	Energy Plantations	3 (2-1)	Major
FRW-503	Forest Policy and Law	3 (3-0)	Major
FRW-505	Wood Science and Technology	3 (2-1)	Major
FRW-507	Forest Survey and Leveling	3 (2-1)	Major
FRW-509	Forest Engineering	3 (2-1)	Major
FRW-511	Forest Ecology	3 (3-0)	Major
FRW-513	Study Tour (Forest Types)	1 (0-1)	Major
<b>Total Credit Hours</b>		<b>19(14-5)</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
FRW-502	Forest Management	3 (2-1)	Major
FRW-504	Watershed Management	3 (2-1)	Major
FRW-506	Range Management	3 (2-1)	Major
FRW-508	Wildlife Management	3 (2-1)	Major
FRW-510	Forest Biometrics	3 (2-1)	Major
FRW-512	Non-Wood Forest Products	2 (2-0)	Major
FRW-514	Study Tour (Forest Management)	1 (0-1)	Major
<b>Total Credit Hours</b>		<b>18(12-6)</b>	

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
FRW-601	Ecotourism and Park Management	3(2-1)	Major
FRW-603	Forest Resource Economics	3(3-0)	Major
FRW-605	Silviculture	3 (2-1)	Major
FRW-607	Forest Management Plan	3(2-1)	Major
FRW-609	Forest Carbon and Climate Change	3(2-1)	Major
FRW-611	Preparation of Research Project and Scientific Writing	3(2-1)	Major
<b>Total Credit Hours</b>		<b>18 (13-5)</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
FRW-612	Internship	3(0-3)	Internship
FRW-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6 (0-6)</b>	



## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester V-VIII) MAJOR SOIL SCIENCE

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
SES-501	Physical Properties of Soils	3(2-1)	Major
SES-503	Chemical Properties of Soils	3(2-1)	Major
SES-505	Soil Genesis and Morphology	3(2-1)	Major
SES-507	Instrumentation and Laboratory Techniques	3(1-2)	Major
MATH-509	Applied Mathematics for Soil Science	3(3-0)	Inter-disciplinary
<b>Sub-Total Credit Hours</b>		<b>15(10-5)</b>	
<b>Major Elective</b>	<b>(Students will opt for 05 credit hours from major elective courses)</b>		
SES-511	Plant Growth under Stress Environment	3(2-1)	Major
SES-513	Microbial Ecology and Plant Growth	3(3-0)	Major
SES-517	Soil Fertility Evaluation	2(1-1)	Major
SES-515	Soil, Water and Air Pollution	2(2-0)	Major
<b>Total Credit Hours</b>		<b>15+5=20</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
SES-502	Salt-Affected Soils and Water Quality	3(2-1)	Major
SES-504	Soil Fertility and Fertilizer Use	3(2-1)	Major
SES-506	Soil Survey and Land Evaluation	3(2-1)	Major
SES-508	Nutrient Management in Degraded Soils	3(2-1)	Major
CHEM-502	Environmental Chemistry and Bio-chemistry	3(2-1)	Inter-disciplinary
<b>Sub-Total credit hours</b>		<b>15 (10+5)</b>	
<b>Major Elective</b>	<b>(Students will opt for 06 credit hours from major elective courses)</b>		
SES-510	Soil – Water – Plant Relationships	3(3-0)	Major
SES-512	Soil Chemistry and Plant Growth	3(3-0)	Major
SES-514	Application of GIS and Remote Sensing in Land Use	3(2-1)	Major
SES-516	Carbon Sequestration and Environment	3(2-1)	Major
<b>Total Credit Hours</b>		<b>15+6=21</b>	

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
SES-601	Soil Microbiology and Environment	3(2-1)	Major
SES-603	Environment Pollution and Management	3(3-0)	Major
SES-605	Soil, Water and Environment Conservation	3(3-0)	Major
SES-609	Elements of Soil Physics	3(2-1)	Major
SES-611	Preparation of Research Project and Scientific Writing	2(1-1)	Major
STAT-601	Applied Statistics for Soil and Environment	3(2-1)	Inter-disciplinary
<b>Sub-Total Credit Hours</b>		<b>17 (14+3)</b>	
<b>Major Elective</b>	<b>(Students will opt for 02 credit hours from elective courses)</b>		
SES-607	Saline Agriculture	2(1-1)	Major
SES-613	Experimental Planning	2(1-1)	Major
<b>Total Credit Hours</b>		<b>17+2=19</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
SES-612	Internship	3(0-3)	Internship
SES-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6 (0-6)</b>	



## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture (Semester V-VIII)

### MAJOR PLANT BREEDING AND GENETICS

#### SEMESTER-V (Students will opt for 2 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
PBG-501	Principles of Genetics	3(2-1)	Major
PBG-503	Breeding Field Crops	3(2-1)	Major
PBG-505	Cytogenetics	3(2-1)	Major
PBG-507	Germplasm Resources of Field Crops	3(2-1)	Major
PBG-509	Experimentation in Plant Breeding	3(2-1)	Major
PBG-511	Hybrid Seed Production Technology	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
PBG-513	Heteroploidy and Apomixis in Crop Breeding	2(1-1)	Major (Elective)
PBG-515	Mutation Breeding in Crop Plants	2(1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

#### SEMESTER-VI (Students will opt for 3 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
PBG-502	Breeding Climate Smart Crops	3(2-1)	Major
PBG-504	Modern Concepts in Plant Breeding	3(2-1)	Major
PBG-506	Genetics and Breeding of Fibre Crops	3(2-1)	Major
PBG-508	Genetics and Breeding of Oilseed Crops	3(2-1)	Major
PBG-510	Genetics and Breeding of Vegetable Crops	3(2-1)	Major
PBG-512	Variety Registration, Seed Certification and IPRs	2(1-1)	Major
<b>Sub-Total Credit Hours</b>		<b>17</b>	
PBG-514	Genetics and Breeding of Sugar Crops	3(2-1)	Major (Elective)
PBG-516	Genetics and Breeding of High-value Crops	3(2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

#### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
PBG-601	Genetics and Breeding of Cereal Crops	3(2-1)	Major
PBG-603	Genetics and Breeding of Pulse Crops	3(2-1)	Major
PBG-605	Genetics and Breeding of Fodder and Forage Crops	3(2-1)	Major
PBG-607	Bioinformatics in Plant Breeding	3(2-1)	Major
PBG-609	Quantitative Genetics and Biometry	3(3-1)	Major
PBG-611	Preparation of Research Project and Scientific Writing	2(1-1)	Major
Biotech-503	Biosafety and Stewardship	3 (2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>20</b>	

#### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
PBG-612	Internship	3(0-3)	Internship
PBG-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>06</b>	



## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture (Semester V-VIII)

### MAJOR SEED SCIENCE AND TECHNOLOGY

#### Semester-V (Students will opt for 2 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
SST-501	Principles of Seed Science	3(2-1)	Major
SST-503	Physiology of Seed Development	3(2-1)	Major
SST-505	Seed Production in Various Crops	3(2-1)	Major
SST-507	Seed Health and Vigour	3(2-1)	Major
PBG-511	Hybrid Seed Production Technology	3(2-1)	Major
SST-511	Experimentation in Seed Science	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
SST-509	Seed Production of Transgenic Crops	2(1-1)	Major (Elective)
PBG-515	Mutation Breeding in Crop Plants	2(1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

#### Semester-VI (Students will opt for 3 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
SST-502	Principles of Seed Technology	3(2-1)	Major
SST-504	Seed Germination and Dormancy	3(2-1)	Major
SST-506	Seed Enhancement	2(1-1)	Major
PBG-512	Variety Registration, Seed Certification and IPRs	2(1-1)	Major
Hort-617	Vegetable and Flower Seed Production	2(1-1)	Major
FMP-510	Seed Processing Industries & their maintenance	3(2-1)	Interdiscip.
MAB-516	Seed Trade Policies and Regulations	2(1-1)	Interdiscip.
<b>Sub-Total Credit Hours</b>		<b>17</b>	
AGRON-502	Seed Science and Technology	3(2-1)	Major (Elective)
ENT-508	Stored Products Pests & their Management	3(2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

#### Semester-VII

Course Code	Course Title	Credit Hours	Category
SST-601	Seed Testing	3(1-2)	Major
SST-603	Seed Storage	3(2-1)	Major
Hort-510	Propagation and Nursery Management.	3(2-1)	Major
SST-611	Preparation of Research Project and Scientific Writing	2(1-1)	Major
PP-601	Plant Disease Management	3(2-1)	Major
Biotech-503	Biosafety and Stewardship	3(2-1)	Major
MAB-615	Seed Marketing and Logistics	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>20</b>	

#### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
SST-612	Internship	3(0-3)	Internship
SST-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>06</b>	



## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester V-VIII) MAJOR BIOTECHNOLOGY

### SEMESTER-V (Students will opt for 3 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
Biotech-501	Principles of Biotechnology	3 (2-1)	Major
Biotech-503	Biosafety and Stewardship	3 (2-1)	Major
Biotech-505	Molecular Cell Biology	3 (2-1)	Major
Biotech-507	Plant Tissue Culture and its Applications	3 (2-1)	Major
Biotech-509	Fundamentals of Bioinformatics	3 (2-1)	Major
SST-509	Seed Production of Transgenic Crops	2 (1-1)	Major
<b>Sub-Total Credit Hours</b>		<b>17</b>	
Biotech-511	Experimentation in Biotechnology	3 (2-1)	Major (Elective)
PBG-505	Cytogenetics	3 (2-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VI (Students will opt for 2 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
Biotech-502	Genomics and Proteomics	3(2-1)	Major
Biotech-504	Epigenetics	3(2-1)	Major
Biotech-506	Plant Transformation Methods	3(2-1)	Major
Biotech-508	Principles of Plant Molecular Physiology	3 (2-1)	Major
Biotech-512	Plant Microbiology	3(2-1)	Major
Biochem502	Fundamental Biochemistry	3 (2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
Biotech-510	Nanobiotechnology	2 (1-1)	Major (Elective)
PP-518	Biotechnology and its applications in Plant Pathology	2 (1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VII (Students will opt for 2 credit hours from elective courses)

Course Code	Course Title	Credit Hours	Category
Biotech-601	Agricultural Biotechnology	4 (3-1)	Major
Biotech-603	Genome Editing and its Applications	3 (2-1)	Major
Biotech-605	Fundamentals of Seed Molecular Biology	3 (2-1)	Major
Biotech-607	Biotechnology Entrepreneurship	3 (2-1)	Major
Biotech-611	Preparation of Research Project and Scientific Writing	2 (1-1)	Major
FST-621	Food Biotechnology	3 (2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
Biotech-609	Industrial Biotechnology	2(1-1)	Major (Elective)
Biotech-613	Animal Biotechnology	2 (1-1)	Major (Elective)
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
Biotech 612	Internship	3(0-3)	Internship
Biotech-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6</b>	



## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester V-VIII) MAJOR ENTOMOLOGY

### Semester-V

Course Code	Course Title	Credit Hours	Category
ENT-501	Insect Morphology	3(2-1)	Major
ENT-503	Principles of Insect Taxonomy	3(2-1)	Major
ENT-505	Insect Ecology	3(2-1)	Major
ENT-507	Insect Pests of Household, Human & Animals	3(2-1)	Major
ENT-509	Insect Behavior	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>15</b>	
ENT-511	Vertebrate Pests and their Management	3(2-1)	Major
ENT-513	Pest Management and Phytosanitary Measures	3(2-1)	Major
ENT-515	Insect Biodiversity Management	2(1-1)	Major
ENT-517	Entomological History and Literature	2(1-1)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### Semester-VI

Course Code	Course Title	Credit Hours	Category
ENT-502	Insect Physiology	3(2-1)	Major
ENT-504	Insect Classification and Biodiversity	3(2-1)	Major
ENT-506	Agricultural Pests and Their Management	3(2-1)	Major
ENT-508	Stored Products Pests & their Management	3(2-1)	Major
ENT-510	Beneficial Insects	2(1-1)	Major
ENT-512	Biological Control of Insect Pests	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>17</b>	
ENT-514	Introduction to Insect Molecular Genetics	2(1-1)	Major
ENT-516	Arachnid Pests and Their Management	2(1-1)	Major
<b>Total Credit Hours</b>		<b>19</b>	

### Semester-VII

Course Code	Course Title	Credit Hours	Category
ENT-601	Integrated Pest Management	3(2-1)	Major
ENT-603	Plant Resistance to Insect Pests	2(1-1)	Major
ENT-605	Insecticides and their Application	3(2-1)	Major
ENT-607	Range and Forest Entomology	3(2-1)	Major
ENT-609	Agriculture and Environmental Pollution	3(2-1)	Major
ENT-611	Preparation of Research Project and Scientific Writing	3(2-1)	Major
ENT-613	Apiculture	2(1-1)	Major
<b>Sub-Total Credit Hours</b>		<b>19</b>	
ENT-615	Post-Harvest Protection of Cereals	2(1-1)	Major
ENT-617	Agricultural Pesticide Legislation	2(2-0)	Major
<b>Total Credit Hours</b>		<b>21</b>	

### Semester-VIII

Course Code	Course Title	Credit Hours	Category
ENT-612	Internship	3(0-3)	Internship
ENT-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6</b>	





## Scheme of Studies

# B.Sc. (Hons.) Agriculture (Semester V-VIII) MAJOR PLANT PATHOLOGY

### Semester-V

Course Code	Course Title	Credit Hours	Category
PP-501	Introductory Mycology	3(2-1)	Major
PP-503	Introduction to Plant Parasitic Nematodes	3(2-1)	Major
PP-505	Introduction to Plant Prokaryotes	3(2-1)	Major
PP-507	Introduction to Plant Viruses	3(2-1)	Major
PP-509	Abiotic Diseases of Plants	3(2-1)	Major
<b>Subtotal Credit Hours</b>		<b>15</b>	
PP-511	Beneficial Microorganisms for sustainable Agriculture	3(2-1)	Major
PP-513	Soil-Borne Plant Pathogens	3(2-1)	Major
<b>Total Credit Hours</b>		<b>15+3=18</b>	

### Semester-VI

Course Code	Course Title	Credit Hours	Category
PP-504	Diseases of Field Crops	3(2-1)	Major
PP-506	Diseases of Fruits and Ornamentals	3(2-1)	Major
PP-508	Pesticides, their Action and Application	3(2-1)	Major
PP-510	Plant Disease Epidemiology	3(2-1)	Major
PP-512	Biology and Cultivation of Edible Fungi	3(2-1)	Major
PP-514	Diseases of Vegetable Crops	3(2-1)	Major
<b>Subtotal Credit Hours</b>		<b>18</b>	
PP-518	Biotechnology and its Application in Plant Pathology	3(2-1)	Major
<b>Total Credit Hours</b>		<b>18+3=21</b>	

### Semester-VII

Course Code	Course Title	Credit Hours	Category
PP-601	Plant Disease Management	3(2-1)	Major
PP-603	Methods and Techniques in Plant Pathology	3(1-2)	Major
PP-605	Seed and Postharvest Pathology	3(2-1)	Major
PP-607	Plant Resistance to Diseases	3(2-1)	Major
PP-609	Introductory Molecular Plant Pathology	3(2-1)	Major
PP-611	Preparation of Research Projects and Scientific Writing	2(1-1)	Major
<b>Subtotal Credit Hours</b>		<b>17</b>	
PP-613	Introductory Range and Forest Pathology	2(1-1)	Major
PP-615	Plant Quarantine and SPS Measures	2(1-1)	Major
<b>Total Credit Hours</b>		<b>17+2=19</b>	

### Semester-VIII

Course Code	Course Title	Credit Hours	Category
PP-612	Internship and External Evaluation	3(0-3)	Internship
PP-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6</b>	



# B.Sc. (Hons.) Environmental Science

## SEMESTER-I

Course Code	Course Title	Credit Hours	Category
ENV-301	Introduction to Environmental Science	3(2-1)	Major
ENV-303	Introduction to Earth Science	3(2-1)	Major
BIO-301	Essentials of Biology	3(2-1)	General
GE-303	Functional English	3(3-0)	General
GE-305	Quantitative Reasoning-I	3 (3-0)	General
GE-309	Applications of Information and Communication Technologies	3(2-1)	General
GE-402	Entrepreneurship	2 (1-1)	General
<b>Total Credit Hours</b>		<b>20(15-5)</b>	

## SEMESTER-II

Course Code	Course Title	Credit Hours	Category
CHEM-302	Basic Chemistry	3 (2-1)	Interdisciplinary
GE-307	Islamic Studies / Ethics (for Foreigners / Non-Muslims)	2 (2-0)	General
ENV-304	Biology for Environmental Studies	3 (2-1)	Major
ENV-306	Introduction to Predictive Modeling for Environment	2(1-1)	Major
AIEH-222	Professional Ethics	2 (2-0)	Interdisciplinary
GE-403	Expository Writing	3 (3-0)	General
GE-405	Quantitative Reasoning-II	3 (3-0)	General
<b>Total Credit Hours</b>		<b>18(15-3)</b>	

## SEMESTER-III

Course Code	Course Title	Credit Hours	Category
ENV-403	Environmental Chemistry	3 (2-1)	Major
ENV-405	Environmental Physics	3 (2-1)	Major
ENV-407	Fundamentals of Ecology	3 (3-0)	Major
ENV-409	Environmental Pollution	3 (2-1)	Major
RS-409	Rural Sociology and Development	2 (2-0)	General
GE-301	Social and Religious Tolerance	2 (2-0)	General
GE-407	Ideology and Constitution of Pakistan	2 (2-0)	General
<b>Total Credit Hours</b>		<b>18(15-3)</b>	

## SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
ENV-404	Environmental Microbiology	3 (2-1)	Major
ENV-408	Research Methods in Environmental Science	3 (2-1)	Major
ENV-410	Climatology	3 (2-1)	Major
ENV-412	GIS and Remote Sensing	3 (2-1)	Major
ECON-418	Environmental Economics	3 (3-0)	Interdisciplinary
STAT-302	Introductory Statistics	2(2-0)	Interdisciplinary
GE-404	Civics and Community Engagement	2 (1-1)	General
<b>Total Credit Hours</b>		<b>19(14-5)</b>	



# B.Sc. (Hons.) Environmental Science

## SEMESTER-V

Course Code	Course Title	Credit Hours	Category
ENV-501	Applied Ecology	3 (2-1)	Major
ENV-503	Environmental Toxicology	3 (2-1)	Major
ENV-505	Environmental Profile of Pakistan	3 (3-0)	Major
ENV-507	Population and Environment	3 (2-1)	Major
ENV-509	Analytical Techniques in Environmental Science	3 (1-2)	Major
ENV-511	Solid Waste Management	2 (2-0)	Major
ENV-513	Soil and Environment	2 (2-0)	Major
<b>Total Credit Hours</b>		<b>19(14-5)</b>	

## SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
ENV-502	Environmental Management Systems	3 (2-1)	Major
ENV-504	Biodiversity and Conservation	3 (2-1)	Major
ENV-506	Environmental Monitoring	3 (2-1)	Major
ENV-508	Introduction to Climate Change	3 (2-1)	Major
ENV-510	Environmental Impact Assessment	3 (2-1)	Major
ENV-512	Water Resources Management	3 (2-1)	Major
ENV-514	Pollutants Movement in Soil	2 (2-0)	Major
<b>Total Credit Hours</b>		<b>20(14-6)</b>	

## SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
ENV-601	Environmental Governance	3 (3-0)	Major
ENV-603	Public Health and Environment	3 (3-0)	Major
ENV-605	Pollution Control Technologies	3 (2-1)	Major
ENV-607	Natural Resources Management	3 (3-0)	Major
ENV-609	Environmental Biotechnology	2(2-0)	Major
ENV-611	Preparation of Research Project and Scientific Writing	2 (1-1)	Major
SES-605	Soil, Water and Environment Conservation	3(3-0)	Interdisciplinary
<b>Total Credit Hours</b>		<b>19(16-3)</b>	

## SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
ENV-612	Internship	3 (0-3)	Internship
ENV-614	Capstone Project	3 (0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6(0-6)</b>	



# Faculty of Food and Home Sciences



# Faculty of Food and Home Sciences

## Dean's Message

Welcome to the Faculty of Food and Home Sciences! I am delighted to express my views that you are going to join a fast growing faculty where commitment, adherence to the standards of academic excellence is among the top core values. For the last many years; our degree programs have been the leading choices of the students. We offer an enriched and comprehensive education in the fields of food, nutrition and home sciences and believe in the power of knowledge and its transformative impact on individuals and society.

Our dedicated faculty members are experts in their respective fields and are committed to providing you with a world-class education that will equip you with the skills and expertise needed to excel in your chosen career path.

As you embark on your academic journey with us, you will have the opportunity to explore a wide range of subjects within the fascinating domains of food, nutrition and home sciences. In nutritional sciences, we have unique shared program and activities with Nishtar Medical University of Multan which reflects a dynamic approach of the institutions.

We believe in fostering a collaborative and inclusive learning environment, where students are encouraged to ask questions, engage in critical thinking, and actively participate in hands-on experiences. Our state-of-the-art facilities and well-equipped laboratories provide the perfect platform for you to apply your knowledge and gain practical skills.

Furthermore, our faculty maintains strong ties with industry leaders, professional organizations, and research institutions, ensuring that our curriculum remains relevant and up-to-date. Through internships, field visits, and guest lectures from industry experts, you will have the opportunity to connect theory with real-world practice, preparing you for a successful career upon graduation.

Moreover, we value the personal and professional development of our students. Alongside academic excellence, we offer various extracurricular activities, clubs, and student organizations that provide a platform for you to explore your interests, develop leadership skills, and build lifelong friendships.

Whether you aspire to become a nutritionist, a food scientist, an interior designer, or a family counselor, the Faculty of Food and Home Sciences is committed in supporting your ambitions and helping you to achieve your goals. We take pride in nurturing well-rounded individuals who are not only academically accomplished but also socially responsible, compassionate, and equipped to make a positive difference in the world.



**PROF. DR. UMAR FAROOQ**  
Dean FFHS, Chairperson Department of HND



## Welcome to the Faculty of Food and Home Sciences!



Faculty of Food and Home Sciences was first established during the year 2016 as Department of Food Science and Technology upgraded as Faculty in the year 2023. At the Faculty of Food and Home Sciences, we are committed to advancing knowledge and innovation in the fields of food science, nutrition, and home sciences. Our 11 dedicated permanent faculty members, 10 visiting faculty members and students from three well defined departments work collaboratively to address pressing challenges related to food production, nutrition, health, and the sustainable management of households

With the recent upgrade from the Department of Food Science and Technology, we have expanded our focus to include a broader range of interdisciplinary areas related to food, nutrition, and the home environment. This transformation reflects our commitment to staying at the forefront of cutting-edge research and education in these critical domains.

Our faculty comprises distinguished experts who bring a wealth of experience and expertise to the table. They are at the forefront of research, exploring novel approaches to enhance food safety, develop innovative food processing techniques, optimize nutritional content, and promote healthy lifestyles. Our faculty members are actively engaged in collaborations with industry partners, government agencies, and international organizations, ensuring that our research has real-world impact and relevance.

Beyond the classroom, the Faculty of Food and Home Sciences offers a vibrant and inclusive community. We encourage students to participate in various student organizations, clubs, and events that foster networking, leadership development, and a sense of belonging. Our faculty and staff are dedicated to providing a supportive and nurturing environment, fostering a culture of academic excellence and personal well-being.

We invite you to explore our website to learn more about the Faculty of Food and Home Sciences, our programs, faculty members, research initiatives, and student opportunities. Join us in shaping the future of food, nutrition, and home sciences through innovation, collaboration, and transformative education.

Welcome to the Faculty of Food and Home Sciences – where knowledge, health, and sustainability meet. Faculty of Food and Home Sciences has comprised of following three departments

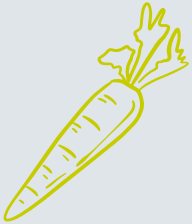
1. Department of Food Science and Technology
2. Department of Human Nutrition and Dietetics
3. Department of Home Sciences

### **Programs being offered at Main Campus**

Following Undergraduate degree programs are being offered at Main Campus.

#### **Undergraduate Programs**

1. BS Food Science and Technology
2. B.Sc. (Hons.) Human Nutrition and Dietetics
3. B.Sc. (Hons.) Home Economics



# FACULTY OF FOOD AND HOME SCIENCES



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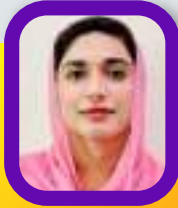
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Human Nutrition and Dietetics



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M.Sc. (Hons.)



Food Science and Technology





# BS

## Food Science and Technology

### Semester-I

Course Code	Course Title	Credit Hours	Category
GE-309	Applications of Information and Communication Technologies	3(2-1)	General Education
GE-303	Functional English	3(3-0)	General Education
GE-407	Ideology and Constitution of Pakistan	2(2-0)	General Education
MATH-301/ BIO-301	Elementary Mathematics (for Pre-Medical) Essentials of Biology (for Pre-Engineering)	3(3-0) 3(2-1)	General Education
AGRON-301	Basic Agriculture	2(1-1)	Interdisciplinary
FST-301	Introduction to Food Science and Technology	3(2-1)	Major
QS-302	Quranic Studies	1(1-0)	Audit/Non-credit
<b>Total Credit Hours</b>		<b>16(12-4)</b>	

### Semester-II

Course Code	Course Title	Credit Hours	Category
GE-403	Expository Writing	3(3-0)	General Education
GE-307	Islamic Studies OR Ethics (For foreigners/Non-Muslims)	2(2-0)	General Education
ARE-408	Human Resource Management and Organizational Behavior	3(3-0)	General Education
HORT-302	Home Gardening	3(2-1)	Interdisciplinary
MB-401	Basic Microbiology	3(2-1)	Interdisciplinary
FST-302	Food Processing and Preservation	3(2-1)	Major
<b>Total Credit Hours</b>		<b>17 (14-3)</b>	

### Semester-III

Course Code	Course Title	Credit Hours	Category
GE-305	Quantitative Reasoning (I)	3(3-0)	General Education
GE-301	Social and Religious Tolerance	2(2-0)	General Education
GE-404	Civics and Community Engagement	2(1-1)	General Education
HND-301	Micro and Macronutrients in Human Nutrition	3(3-0)	Interdisciplinary
ENT-508	Stored Products Pests and their Management	3(2-1)	Interdisciplinary
FST-401	Global Food Issues	3(3-0)	Major
FST-403	Food Business Management	3(2-1)	Major
QS-302	Quranic Studies	1(1-0)	Audit/Non-credit
<b>Total Credit Hours</b>		<b>19 (16-3)</b>	

### Semester-IV

Course Code	Course Title	Credit Hours	Category
GE-405	Quantitative Reasoning (II)	3(3-0)	General Education
GE-402	Entrepreneurship	2(2-0)	General Education
FST-402	Food Toxicology and Safety	3(3-0)	Major
FST-404	Community nutrition and dietetics	2(2-0)	Major
FST-406	Unit Operation in Food Processing	3(2-1)	Major
FST-408	Poultry and Egg Processing	3(2-1)	Major
FST-410	Food Process Engineering	3(3-0)	Major
<b>Total Credit Hours</b>		<b>19 (17-2)</b>	



# BS

## Food Science and Technology

### Semester-V

Course Code	Course Title	Credit Hours	Category
FST-501	Dairy Technology	3(2-1)	Major
FST-503	Technology of Fats and Oils	3(2-1)	Major
FST-505	Food Microbiology	3(2-1)	Major
FST-507	Food Plant Layout and Sanitation	2(2-0)	Major
FST-509	Meat Technology	3(2-1)	Major
FST-511	Cereal Milling Technology	3(2-1)	Major
FST-513	Food Analysis and Sensory evaluation	3(2-1)	Major
QS-302	Quranic Studies	1(1-0)	Audit/Non-credit
<b>Total Credit Hours</b>		<b>20 (14-6)</b>	

### Semester-VI

Course Code	Course Title	Credit Hours	Category
FST-502	Extrusion Technology	3(2-1)	Major
FST-504	Beverage Technology	3(2-1)	Major
FST-506	Food Laws and Regulations	3(3-0)	Major
FST-508	Bakery Products Technology	3(2-1)	Major
FST-510	Food Packaging	2(2-0)	Major
FST-512	Food Product Development	3(2-1)	Major
FST-514	Sugar Technology	3(2-1)	Major
<b>Total Credit Hours</b>		<b>20 (15-5)</b>	

### Semester-VII

Course Code	Course Title	Credit Hours	Category
FST-601	Instrumental Techniques in Food Analysis	3(1-2)	Major
FST-603	Food Safety and Quality Management	3(3-0)	Major
FST-605	Food Biotechnology	3(2-1)	Major
FST-607	Fundamentals of Halal Foods	3(3-0)	Major
FST-609	Fundamentals of Food Systems	3(3-0)	Major
FST-611	Research Projects and Scientific Writing	2(1-1)	Major
FST-613	Confectionery and Snack Foods	3(2-1)	Major
QS-302	Quranic Studies	1(1-0)	Audit/Non-credit
<b>Total Credit Hours</b>		<b>20 (15-5)</b>	

### Semester-VIII

Course Code	Course Title	Credit Hours	Category
FST-612	Internship and External Evaluation	3(0-3)	Internship
FST-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6 (0-6)</b>	



# B.Sc. (Hons.)

DEPARTMENT OF HUMAN NUTRITION & DIETETICS  
(Semester I-VIII)

## SEMESTER-I

Course Code	Course Title	Credit Hours
BIOCHEM-302	Medical and Clinical Biochemistry	3(1-2)
GE-303	Functional English	3(3-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
HND-301	Micro and Macronutrients in Human Nutrition	3(3-0)
HND-303	Human Physiology-I	3(2-1)
HND-305	Human Anatomy	3(2-1)
<b>Total Credit Hours</b>		<b>18(14-4)</b>

## SEMESTER-II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-405	Quantitative Reasoning (II)	3(3-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
FST-412	Essential of Food Science and Technology	3(2-1)
HND-302	Pharmacology	3(3-0)
HND-304	Human Physiology-II	3(2-1)
<b>Total Credit Hours</b>		<b>17(15-2)</b>

## SEMESTER-III

Course Code	Course Title	Credit Hours
GE-307	Islamic Studies/Ethics (for Foreigners/ Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-301	Social and Religious Tolerance	2(2-0)
PSYCHO-406	Nutrition and Psychology/Behavior	2(2-0)
FST-607	Food laws and Regulation	2(2-0)
HND-401	General Human Pathology	3(2-1)
HND-403	Nutritional Deficiency Disorders	3(3-0)
<b>Total Credit Hours</b>		<b>17(15-2)</b>

## SEMESTER-IV

Course Code	Course Title	Credit Hours
GE-402	Entrepreneurship	2(2-0)
GE-404	Civics and Community Engagement	2(2-0)
FST-511	Food Analysis and Sensory Evaluation	3(2-1)
HND-402	Community Nutrition and Dietetics	3(3-0)
HND-404	Nutritional Epidemiology	3(3-0)
HND-406	Nutrition Policies and Programs	3(3-0)
HND-408	Nutrition Through the Life Cycle	3(3-0)
QS-302	Quranic Studies	1(1-0) Audit
<b>Total Credit Hours</b>		<b>19(18-1)</b>



# B.Sc. (Hons.)

DEPARTMENT OF HUMAN NUTRITION & DIETETICS  
(Semester I-VIII)

## SEMESTER-V

Course Code	Course Title	Credit Hours
FST-503	Food Microbiology	3(2-1)
HND-501	Dietetics-I	3(2-1)
HND-503	Assessment of Nutritional Status	3(2-1)
HND-505	Functional Foods and Nutraceuticals	3(3-0)
HND-507	Public Health Nutrition	3(2-1)
HND-509	Nutritional Education and Awareness	3(2-1)
QS-301	Quranic Studies	1(1-0) Audit
<b>Total Credit Hours</b>		<b>18(13-5)</b>

## SEMESTER-VI

Course Code	Course Title	Credit Hours
PH-406	Health Promotion, Advocacy and Social Mobilization	3(2-1)
HND-502	Dietetics-II	3(2-1)
HND-504	Research Methods in Nutrition	2(1-1)
HND-506	Nutritional Practices in Clinical Care	3(2-1)
HND-508	Food Toxins and Allergens	3(3-0)
HND-510	Drug-Nutrient Interactions	2(2-0)
HND-512	Meal Planning and Management-I	3(3-0)
QS-302	Quranic Studies	1(1-0) Audit
<b>Total Credit Hours</b>		<b>19(15-4)</b>

## SEMESTER-VII

Course Code	Course Title	Credit Hours
HND-601	Preventive Nutrition	3(3-0)
HND-603	Meal Planning and Management-II	3(2-1)
HND-605	Nutrition in Emergencies	3(3-0)
HND-607	Infant and Young Child Feeding	3(2-1)
HND-609	Global Food Issues	3(3-0)
HND-611	Sports Nutrition	3(2-1)
FST-609	Fundamentals of Food Systems	3(3-0)
QS-301	Quranic Studies	1(1-0) Audit
<b>Total Credit Hours</b>		<b>21(18-3)</b>

## SEMESTER-VIII

Course Code	Course Title	Credit Hours
HND-612	Internship and External Evaluation	3(0-3)
HND-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>



## Scheme of Studies

# B.Sc. (Hons.) Home Economics (Semester I-VIII)

### Semester-I

Course Code	Course Title	Credit Hours
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
UAM-401	Social and Religious Tolerance	2(2-0)
GE-303	Functional English	3(3-0)
GE-402	Entrepreneurship	2(2-0)
BIOCHEM-301	Elementary Chemistry	3(2-1)
HE-301	Fundamentals of Food and Nutrition	3(3-0)
HE-303	Introduction to Home Economics	2(2-0)
QS-301	Quranic Studies I	1(1-0) Audit
<b>Total Credit Hours</b>		20(18-2)

### Semester-II

Course Code	Course Title	Credit Hours
HE-302	Introduction to Art and Design-I	3(1-2)
HE-306	Family Clothing and Consumer Education	3(2-1)
HE-308	Home Management and Housing I	3(2-1)
HND-301	Micro and Macronutrients in Human Nutrition	3(3-0)
HE-310	Sustainable Design	2(2-0)
GE-403	Expository Writing	3(3-0)
HORT-302	Home Gardening	3(2-1)
QS-302	Quranic Studies II	1(1-0) Audit
<b>Total Credit Hours</b>		20(14-6)

### Semester-III

Course Code	Course Title	Credit Hours
HE-410	Theme Research/Story & Mood Board	2(2-0)
GE-307	Islamic Studies or Ethics (for non- Muslims/foreigners)	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
HE-401	Life span Development	2(2-0)
HE-403	Fashion Designing	2(1-1)
HE-405	Introduction to Art and Design-II	2(0-2)
HND-406	Nutrition Policies and Programs	3(3-0)
HE-409	Home Management and Housing II	3(2-1)
QS-301	Quranic Studies I	1(1-0) Audit
<b>Total</b>		19(15-4)

### Semester-IV

Course Code	Course Title	Credit Hours
HE-412	Couture Finish	3(0-3)
FST-402	Essentials of Food Science & Technology	3(2-1)
GE-405	Quantitative Reasoning (II)	3(3-0)
GE-404	Civics and Community Engagement	2(2-0)
HE-402	Basic Psychology	3(3-0)
HE-404	Landscape	3(2-1)
HE-408	Meal Management	3(2-1)
QS-302	Quranic Studies II	1(1-0) Audit
<b>Total Credit Hours</b>		20(14-6)



## Scheme of Studies

# B.Sc. (Hons.) Home Economics (Semester I-VIII)

### Semester-V

Course Code	Course Title	Credit Hours
FN-501	Physiological aspects of Nutrition	3(3-0)
FN-503	Applied Nutrition	3(3-0)
FN-505	Experimental study of local cuisines	3(1-2)
FN-507	Nutritional Epidemiology in Public Health	3(2-1)
MICRO-501	Introduction to Microbiology & Immunology	3(2-1)
PHYSIO-501	Human Physiology I	3(2-1)
<b>Total Credit Hours</b>		<b>18(13-5)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
FN-502	Dietetics	3(2-1)
FN-504	Nutrition & Diet Therapy	3(2-1)
FN-506	Institutional and Food Service Management	3(2-1)
FN-508	Infant Nutrition and Child Health	3(2-1)
FN-510	Nutritional Management in Disasters	3(3-0)
FN-512	Advanced Nutrition	3(2-1)
<b>Total Credit Hours</b>		<b>18(13-5)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-601	Instrumental Techniques in Food Analysis	3(1-2)
FST-607	Food Product Development	3(1-2)
FST-611	Research Projects and Scientific Writing	2(1-1)
FN-601	Nutritional Practices in Clinical care	3(2-1)
FN-603	Nutritional Disorders	3(3-0)
<b>Total Credit Hours</b>		<b>14(8-6)</b>

### Elective Courses Choose 1 course of 3 credit hours

FN-605	Nutrition, Health and Prevention	3(3-0)
FN-607	Sports Nutrition	3(3-0)
FN-609	Food Allergens	3(3-0)
<b>Total Credit Hours</b>		<b>17(11-6)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
FN-612	Internship	3(0-3)
FN-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>



## Scheme of Studies

# B.Sc. (Hons.) Home Economics Major: Textiles and Clothing (Semester I-VIII)

### Semester-V

Course Code	Course Title	Credit Hours
TC-501	Textile Designing	3(1-2)
TC-503	Textile Designing & weaving	3(2-1)
TC-505	Pattern making	3(1-2)
TC-507	Fiber Science	3(3-0)
TC-509	Fashion Designing and Illustrations	3(1-2)
TC-511	Textiles Chemistry I	3(2-1)
<b>Total Credit Hours</b>		<b>18(10-8)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
TC-502	Art of Draping	3(1-2)
TC-504	Textiles Computer aided design	3(2-1)
TC-506	Clothing Styles	3(1-2)
TC-508	Advanced Textiles	3(2-1)
TC-510	Economic, Social and Psychological aspects of Clothing and Textile	3(3-0)
TC-512	Textiles Chemistry II	3(2-1)
<b>Total Credit Hours</b>		<b>18(11-7)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-611	Research Projects and Scientific Writing	2(1-1)
TC-601	Textile Testing	3(2-1)
TC-603	Dyeing and Printing	3(1-2)
TC-605	Textile Industrial Management	3(2-1)
TC-607	Decorative Fabrics	3(1-2)
<b>Total</b>		<b>14(7-7)</b>
<b>Elective Choose one course of 3 credit hours</b>		
TC-609	Historic Costume	3(3-0)
TC-611	Fashion Photography	3(1-2)
TC-613	Fashion and Boutique Management	3(2-1)
<b>Total Credit Hours</b>		<b>17</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
TC-612	Internship	3(0-3)
TC-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>



## Scheme of Studies

# B.Sc. (Hons.)

## Home Economics

Major: Human Development and Family Study

(Semester I-VIII)

### Semester-V

Course Code	Course Title	Credit Hours
HDF-501	Development from prenatal to Infancy	3(3-0)
HDF-503	Childhood Care and Development	3(2-1)
HDF-505	Theoretical Perspectives of Human Development	3(3-0)
HDF-507	Adolescent Development	3(2-1)
HDF-509	Early Childhood and Guidance	3(3-0)
HDF-511	Educational Psychology	3(2-1)
<b>Total Credit Hours</b>		<b>18(15-3)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
HDF-502	Exceptional Children	3(2-1)
HDF-504	Gender Identity and Expression	3(3-0)
HDF-506	Positive Psychology	3(3-0)
HDF-508	Abnormal Psychology	3(3-0)
HDF-510	Human and Family Ecology	3(3-0)
HDF-512	Planning and Managing Human Services	3(3-0)
<b>Total Credit Hours</b>		<b>18(17-1)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-611	Research Projects and Scientific Writing	2(1-1)
HDF-601	Counseling & Guidance	3(2-1)
HDF-603	Elementary Education and Administration	3(2-1)
HDF-605	Psychological Testing	3(2-1)
HDF-607	Adulthood and Aging	3(2-1)
<b>Total Credit Hours</b>		<b>14(9-5)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
HDF-612	Internship	3(0-3)
HDF-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>





## Scheme of Studies

# B.Sc. (Hons.) Home Economics Major: Art and Design

### Semester-V

Course Code	Course Title	Credit Hours
AD-501	Commercial Art	3(1-2)
AD-503	Essentials of Interior Design I	3(1-2)
AD-505	Painting & Print Making	3(1-2)
AD-507	Interior Design	3(1-2)
AD-509	Applied Art-I	3(1-2)
AD-511	Art Education-I	3(1-2)
<b>Total Credit Hours</b>		<b>18(6-12)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
AD-502	Applied Art-II	3(1-2)
AD-504	Art Education-II	3(1-2)
AD-506	Hand Built Pottery	3(1-2)
AD-510	Drawing and Painting	3(0-3)
AD-512	Textile Design and Printing	3(1-2)
<b>Total Credit Hours</b>		<b>15(4-11)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-611	Research Projects and Scientific Writing	2(1-1)
AD-601	Weaving	3(1-2)
AD-603	Graphic Communication	3(1-2)
AD-605	Essentials of Interior Design II	3(1-2)
AD-607	Ceramics	3(1-2)
AD-609	Islamic Art	3(1-2)
<b>Total Credit Hours</b>		<b>17(6-11)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
AD-612	Internship	3(0-3)
AD-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>



## Scheme of Studies

# B.Sc. (Hons.)

## Home Economics

Major: Interior and Environmental Design

### Semester-V

Course Code	Course Title	Credit Hours
IED-501	Interior Space Planning I	3(3-0)
IED-503	Fundamentals of Interior Architecture I	3(3-0)
IED-505	Designing the Furniture	3(2-1)
IED-507	Interior Design Application	3(1-2)
IED-509	Consumer Marketing Strategies	3(2-1)
IED-511	Advance Computer Applications for Interior Design.	3(1-2)
<b>Total Credit Hours</b>		<b>18(12-6)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
IED-502	Designing functional spaces for special needs	3(2-1)
IED-504	Designing for Soft Furnishing	3(2-1)
IED-506	Interior Environment	3(2-1)
IED-508	Fundamentals of Interior Architecture II	3(1-2)
IED-510	Environmental Aesthetics	3(2-1)
IED-512	Interior Design Project 1	3(0-3)
<b>Total Credit Hours</b>		<b>18(9-9)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-611	Research Projects and Scientific Writing	2(1-1)
IED-601	Interior Space Planning II	3(1-2)
IED-603	Environmental Management	3(1-2)
IED-605	Interior Design Professional practice management	3(2-1)
IED-609	Interior Design Project II	3(0-3)
<b>Total Credit Hours</b>		<b>14(5-9)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
IED-612	Internship	3(0-3)
IED-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>



## Scheme of Studies

# B.Sc. (Hons.)

Major: Resource and Facility Management

### Semester-V

Course Code	Course Title	Credit Hours
RFM-501	Essentials of Management	3(3-0)
RFM-503	Small Business Management	3(2-1)
RFM-505	Hotel Management	3(2-1)
RFM-507	Fundamentals of Marketing	3(3-0)
RFM-509	Management of Household Affairs	3(2-1)
RFM-511	Family Finance	3(3-0)
<b>Total Credit Hours</b>		<b>18(15-3)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
RFM-502	Essentials of communication	3(3-0)
RFM-504	House Keeping Management	3(2-1)
RFM-506	Home Management Supervision	3(2-1)
RFM-508	Organizational Behavior	3(3-0)
RFM-510	Money Banking and Finance	3(3-0)
RFM-512	Environmental Management	3(3-0)
<b>Total Credit Hours</b>		<b>18(16-2)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
FST-611	Research Projects and Scientific Writing	2(1-1)
RFM-601	Consumer Economics	3(2-1)
RFM-603	Human Resource Management	3(3-0)
RFM-605	Management in Institutions	3(3-0)
RFM-609	Human Resource Development	3(3-0)
<b>Total</b>		<b>14(12-2)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
RFM-612	Internship	3(0-3)
RFM-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>

# Faculty of Social Sciences & Humanities





## Faculty of Social Sciences & Humanities

### Dean's Message

Dear Prospective Students,

Welcome to the Faculty of Social Sciences and Humanities at MNS University of Agriculture, Multan. As the Dean, it is my honor to introduce you to an enriching academic journey that will shape your future and to introduce you to a world of opportunities and transformative learning experiences that await you here.

Our faculty is dedicated to fostering an environment where academic excellence, innovation, and practical skills converge. We offer a diverse range of undergraduate programs designed to equip you with the knowledge and competencies needed to excel in the dynamic and ever-evolving field of economics, management and social sciences in realm of cultural dynamics and ethical guidelines. Our aim is to equip you with the analytical skills and critical thinking abilities necessary to understand and address the challenges of our world.

I gain pride of introducing my distinguished faculty who bring a wealth of experience and expertise from both academia and industry. They are committed to mentoring and guiding you, ensuring that you not only grasp theoretical concepts but also understand their real-world applications. Our curriculum is carefully crafted to balance foundational theories with hands-on learning.

Beyond academics, we encourage you to engage in our vibrant campus life. Participate in various student organizations, attend guest lectures by industry leaders, and take advantage of networking opportunities. These experiences will enrich your time at MNSUAM and help you build a strong professional network.

Our team is excited to have you join our community of aspiring leaders, innovators, and changemakers. Together, we will embark on a journey of discovery, growth, and success.

1. Department of Agricultural and Resource Economics
2. Department of Agribusiness and Entrepreneurship Development
3. Department of Outreach and Continuing Education
4. Department of Islamic Studies
5. Department of English
6. Department of Statistics
7. Department of Agricultural Extension
8. Center for Agricultural Sustainability in South Punjab



**Prof. Dr. Irfan Ahmad Baig**  
Dean - FSS&H



DEPARTMENT OF  
**AGRICULTURAL &  
RESOURCE ECONOMICS**



**B.Sc.** (Hons.)  
Agricultural and Resource Economics

**BS** Sociology

**B.Sc.** (Hons.)  
Agriculture with major Agricultural and Resource Economics

**B.Sc.** (Hons.)  
Agriculture major in Farm Management



## DEPARTMENT OF AGRICULTURAL & RESOURCE ECONOMICS

Population of Pakistan is increasing at an alarming rate and its majority depends directly or indirectly on agriculture sector for their livelihood. Therefore, agriculture development is inevitable for ensuring food security, improving quality of life, alleviation of poverty and overall development in the rural areas. The Department of Agricultural and Resource Economics is well aware of changing scenarios of the sector and emerging challenges of rural economy of Pakistan and is committed to equip the young social and agricultural scientists with updated knowledge and sophisticated research skills enabling them to handle economic, social and environmental challenges in the achieving the goal of sustainable rural development. To cater the needs, the department offers following undergraduate programmes.

### **B.Sc. (Hons.)**

#### **Agricultural and Resource Economics**

B.Sc. (Hons.) Agricultural and Resource Economics program aims to produce professional graduates with the knowledge, skills and attributes required for problem solving and economic decision making across a diverse range of agricultural and natural resource issues. This degree provides students with a strong economic and quantitative background that allows them to explore a variety of professional career options or to advance to higher degree studies.

### **BS Sociology**

BS Sociology program aim is to foster positive social change through rigorous research, empathetic understanding, and effective advocacy. Through research, advocacy, and analysis of societal structures, to address inequalities, promote social justice, and enhance community well-being. Also, it strives to contribute to creating inclusive and equitable societies by applying sociological principles to tackle systemic issues and foster sustainable change.

### **B.Sc. (Hons.)**

#### **Agriculture with major Agricultural and Resource Economics**

B.Sc. (Hons.) Agriculture in Agricultural and Resource Economics degree seeks to promote tertiary education and human capacity building in agricultural and resource economics. Programme mission includes achieving food security and sustainable agricultural development by providing qualified professionals to contribute in various national as well as international organizations for the purpose.

### **B.Sc. (Hons.)**

#### **Agriculture major in Farm Management**

B.Sc. (Hons.) Agriculture major in Farm Management is aimed at improving the skills of future farm managers to prepare them for the challenges and opportunities of a dynamic and complex agri-system.

DEPARTMENT OF  
**AGRICULTURAL & RESOURCE ECONOMICS**



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**DEPARTMENT OF  
AGRIBUSINESS AND  
ENTREPRENEURSHIP DEVELOPMENT**



**BBA**  
**Agribusiness**



## DEPARTMENT OF AGRIBUSINESS AND ENTREPRENEURSHIP DEVELOPMENT

The Department of Agribusiness and Entrepreneurship Development focuses on the intersection of agriculture, business, and entrepreneurial skills. It aims to provide education, training and skills on decision making in the complex business environment for the youth in South Punjab and beyond. The department focuses on providing quality education at undergraduate and graduate level and strengthening the network with industry through its outreach activities. The department is equipped with well-established business incubation centre to inculcate a culture of entrepreneurship to produce innovative business enterprises.

# BBA Agribusiness

The vision of BBA Agribusiness degree program is the expansion of the self-importance and a sense of pride in Agri-business profession in our students, in the direction to construct an excellent Agri Entrepreneur and Fostering Agribusiness & Management and the Food Security. BBA Agribusiness primarily focuses on polishing the personality and intellectual capability of our students through personal meetings, guidance in combination with presentations and extensive discussions in the classrooms. Above all, the achievement of this degree is to provide an excellent blend of faculty from academia as well as executives from industry (businesses, banks, and other financial and marketing fields) because we believe in excellence in agriculture business education.

**DEPARTMENT OF  
AGRIBUSINESS AND ENTREPRENEURSHIP DEVELOPMENT**



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# Department of Outreach and Continuing Education (DOCE)





# Department of Outreach and Continuing Education (DOCE)

The Department of Outreach and Continuing Education (DOCE) at MNS-UAM offers various short courses associated with skill development and community education. The department was established in 2015 with the aim of developing proactive agricultural outreach along with the community training through skill development courses. The postgraduate program in Agriculture Extension is going to be offered. The department has qualified faculty, which is actively involved in developing latest courses and promoting effective outreach activities. The Institute is running several research projects funded by National Vocational and Technical Training Commission, Punjab Skill Development Fund, and other funding bodies. Keeping in view the gap in digital agriculture, department is also planning to launch e-outreach program for establishing linkages among the farming community, industry and the researchers to address the problems of the stakeholders through the digital transformation in agriculture. The department will also be frequently organizing the faculty and student training programs.

## **Mission**

To create a positive impact on the agricultural community by engaging diverse stakeholders in the planning and delivery of meaningful content and evidence-based programs.

## **Vision**

To engage and empower individuals and communities, to become innovative, sustainable, resilient, and healthy.

# Department of Outreach and Continuing Education



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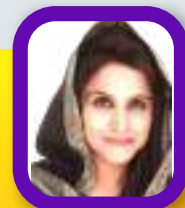
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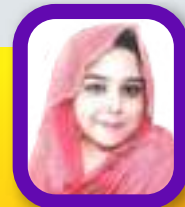
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💡 Agricultural Extension



# شعبہ علوم اسلامیہ

یونیورسٹی آف ایگریکلچر ملتان زراعت، نباتات، خوراک، حیوانات، ٹیکنالوجی اور سماجی علوم کی تدریس و تحقیق کا ادارہ اور تربیت گاہ ہے۔ یونیورسٹی انتظامیہ نے اس بات کا ادراک کیا کہ طلباء و طالبات کے لیے جس قدر زرعی علوم کا جاننا اہم ہے اتنا ہی دینی و سماجی علوم سے واقفیت حاصل کرنا بھی ضروری ہے۔ زراعت، تجارت، صنعت، ٹیکنالوجی کے علوم کا ارتقاء ایک سماج ہی میں ہوتا ہے۔ سماج میں موجود افراد کا ایک دوسرے سے گہرا ربط و تعلق ہوتا ہے۔ تمام لوگ ایک دوسرے سے کسی نہ کسی (معاشرتی و کسبی، نسبی و فکری) رشتے میں جڑے ہوتے ہیں۔ کسی بھی انسان کے مثبت یا منفی رویے اور بلند و پست اخلاق اس کے سماجی کردار سے نمایاں ہوتے ہیں۔ اعلیٰ کردار کی تعمیر کے لیے کسی اعلیٰ فکر کا ہونا ضروری ہے۔ تاکہ یہ جانا جائے کہ سماجی تقاضے کیا ہیں؟ سماج میں موجود افراد کے باہمی تعلقات کی اساس کیا ہے؟ انسانوں کے مسلمہ اخلاق کون سے ہیں؟ طلباء و طالبات میں دین اسلام کی اعلیٰ فکر پر معاشرتی تشکیل کا شعور بیدار کیا جائے۔ تاکہ وہ انسانی اجتماع کو ترقی دینے والے اعلیٰ اخلاق کو پروان چڑھائیں اور اجتماع کو نقصان دینے والے برے اخلاق سے محفوظ رہیں۔ ان اہم معاشرتی امور کو عمل میں لانے کے لیے یونیورسٹی میں شعبہ علوم اسلامیہ کا قیام عمل میں لایا گیا۔ جس کا مقصد یونیورسٹی کے طلباء و طالبات میں دینی علوم کے اساسی ماخذ قرآن حکیم کے افکار عالیہ، خاتم النبیین حضرت محمد ﷺ کے اسوہ حسنہ، احادیث مبارکہ کے مقدس علوم اور تاریخ اسلام کے ساتھ ساتھ دینی افکار کی اساس پر قانون، سماج، سیاست، معیشت کا تعارف پیدا کرنا ہے۔ طلباء و طالبات میں مثبت سماجی رویوں کی تشکیل، اعلیٰ اخلاق کی تعمیر، اوصاف حمیدہ کی افزائش کرنا ہے۔

#### مقاصد:

طلباء و طالبات میں اللہ سے تعلق، انسان دوستی اور سماجی خدمت جیسے اعلیٰ تصورات کو پروان چڑھانا۔ تاکہ وہ خلوص نیت، بلند اخلاق اور شعوری کردار کے حامل ہوں۔ وہ انسان دوست جذبہ کے ساتھ زرعی علوم کو ترقی دیں اور قومی و بین الاقوامی سطح پر ملک و ملت کا نام روشن کریں۔

#### غرض و غایت:

طلباء و طالبات کو دینی تعلیمات سے روشناس کروانے کے ساتھ ساتھ

۱۔ عصر حاضر کے نظریاتی، اخلاقی، سماجی، سیاسی اور معاشی رجحانات سے آگاہ کرنا۔

۲۔ جذباتیت سے بلند ہو کر عصر حاضر کے چیلنجز کو شعوری بنیادوں پر سمجھنے کا اہل بنانا۔

۳۔ دین اسلام کی آفاقی تعلیمات کو سائنٹفک اور موثر انداز سے پیش کرنے کی صلاحیت پیدا کرنا۔

۴۔ جدید ٹیکنالوجی کے استعمال کے ساتھ ساتھ اس کے مثبت سماجی کردار و اثرات سے آگاہ کرنا۔

#### اہداف:

طلباء و طالبات کے صحت مند رویوں کی تعمیر کرنا اور تربیت دینا تاکہ وہ

۱۔ دینی شعائر کا احترام کریں اور دینی احکامات کو عمل میں لائیں۔

۲۔ معاشرہ میں بردباری، بھائی چارہ، ذہنی وسعت اور اعتدال جیسی صحت بخش اقدار کا مظاہرہ کریں اور ان کا پرچار کریں۔

۳۔ فرقہ واریت، گروہیت، عصبیت اور طبقاتیت کے مقابلہ پر وحدت انسانیت، بھائی چارہ، امن پسندی اور مساوات کا عملی نمونہ بنیں۔

۴۔ شعبہ زراعت میں ایجادات کے ذریعہ انسانوں کو سہولیات بہم پہنچانے میں کردار ادا کریں۔







Department of

# ENGLISH





## Department of Agricultural Extension



Agricultural Extension education plays multipurpose role in the provision of need-based and demand-based knowledge by serving as a bridge between research and farming community.



## Department of

# Statistics

The agricultural investigations are based on the application of statistical methods and procedures which are helpful in testing hypotheses using observed data in estimations of parameters and predictions. Department of Statistics at MNS University of Agriculture Multan puts all efforts to equip the students with effective training in the field of statistics by teaching them basic and modern knowledge of the subject. The ambition is to produce graduates with skills to predict, forecast and estimate the real time data.



**MS. SAMRA NASEEM**

Position: Lecturer

Qualification: M.Phil Statistics

Expertise: Applied statistics, Data analyses

Email: samra.naseem@mnsuam.edu.pk



## Scheme of Studies

# B.Sc. (Hons.)

## Agricultural and Resource Economics

### Semester-I

Course Code	Course Title	Credit Hours
ARE-301	Principles of Microeconomics	3(3-0)
LM-301	Livestock Management	2(1-1)
AEE-301	Introduction to Agri. Extension	3(2-1)
GE-303	Functional English	3(3-0)
ENV-301	Introduction to Environmental Science	3(2-1)
GE-305	Quantitative Reasoning (I)	3(3-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
QS-301 (Part I)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>19(16-3)</b>

### Semester-II

Course Code	Course Title	Credit Hours
ARE-302	Principles of Macroeconomics	3(3-0)
AGRON-302	Principles of Agronomy	3(2-1)
HORT-302	Introductory Horticulture	3(2-1)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-405	Quantitative Reasoning (II)	3(3-0)
GE-403	Expository Writing	3(3-0)
<b>Total Credit Hours</b>		<b>20(17-3)</b>

### Semester-III

Course Code	Course Title	Credit Hours
GE-301	Social and Religious Tolerance	2(2-0)
ARE-401	Intermediate Microeconomics	3(3-0)
SES-401	Introduction to Soil Science	3(2-1)
FRW-401	Agro-Forestry, Range and Wildlife Management	3(2-1)
GE-402	Entrepreneurship	2(1-1)
ARE-403	Intermediate Mathematics	3(3-0)
ARE-405	Principles of Agricultural Marketing	3(3-0)
RS-409	Rural Sociology and Development	2(2-0)
QS-301 (Part II)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>21(18-3)</b>

### Semester-IV

Course Code	Course Title	Credit Hours
ARE-402	Intermediate Macroeconomics	3(3-0)
ENT-402	General Plant Protection	3(2-1)
GE-404	Civics and Community Engagement	2(1-1)
ARE-404	Agriculture Production Economics	3(3-0)
ARE-406	Economy of Pakistan	3(3-0)
ARE-408	Human Resource Management and Organizational Behavior	3(3-0)
HND-408	Nutrition Policies and Programs	3(3-0)
<b>Total Credit Hours</b>		<b>20(18-2)</b>



## Scheme of Studies

# B.Sc. (Hons.)

## Agricultural and Resource Economics

### Semester-V

Course Code	Course Title	Credit Hours
STAT-501	Statistical Methods for Economists	3(2-1)
ARE-501	Microeconomic Analysis	3(3-0)
ARE-503	Farm Planning and Budgeting	3(2-1)
ARE-505	Introduction to International Trade	3(3-0)
ARE-507	Mathematical Economics	3(3-0)
ARE-509	Introduction to Environmental Economics	2(2-0)
ARE-511	Principles of Agribusiness Management	3(3-0)
QS-301 (Part III)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>20(18-2)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
ARE-502	Macroeconomic Analysis	3(3-0)
ARE-504	Development Economics	3(3-0)
ARE-506	Econometrics-I	3(2-1)
ARE-508	Natural Resource Economics	3(3-0)
ARE-510	Livestock Economics	3(3-0)
ARE-512	Agricultural Finance	3(3-0)
<b>Total Credit Hours</b>		<b>18(17-1)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
ARE-601	Econometrics-II	3(2-1)
ARE-603	Issues and Policies of Agriculture, Resources and Environment	3(3-0)
ARE-607	Software Applications in Economic Analysis	2(0-2)
ARE-605	Project Management and Evaluation	3(3-0)
ARE-609	Islamic Economics	3(3-0)
ARE-611	Research Methods in Social Sciences	3(2-1)
QS-301 (Part IV)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>17(13-4)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
ARE-612	Field Experience/ Internship	3(0-3)
ARE-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>
<b>Grand Total Credit Hours</b>		<b>141(117-24)</b>



## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture Major in Agricultural and Resource Economics

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
AE-501	Microeconomics – I	3(3-0)	Major
AE-503	Macroeconomics – I	3(3-0)	Major
AE-505	Mathematics for Economists	3(3-0)	Major
AE-507	Agricultural Finance	3(3-0)	Major
AE-509	Food and Agricultural Marketing	3(3-0)	Major
STAT-501	Statistical Methods for Economist	3(3-0)	Interdisciplinary
	Elective from Group 1	2(2-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
AE-502	Microeconomics –II	3(3-0)	Major
AE-504	Macroeconomics – II	3(3-0)	Major
AE-506	Econometrics – I	3 (2-1)	Major
AE-508	Agricultural issues and Policies of Pakistan-I	3(3-0)	Major
AE-510	Agribusiness Supply Chain Management	3(3-0)	Major
AE-512	Development Economics	3(3-0)	Major
	Elective from Group 2	2(2-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
AE-601	Econometrics – II	3(2-1)	Major
AE-603	Natural Resource Economics	3(3-0)	Major
AE-605	International Economics	3(3-0)	Major
AE-607	Agricultural Production Economics	3(3-0)	Major
AE-609	Research Methods in Agricultural Economics	3(3-0)	Major
AE-611	Islamic Economics	3(3-0)	Major
	Elective from Group 3	2(2-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
AE-612	Internship	3(0-3)	Internship
AE-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6(0-6)</b>	

### Elective Courses

Course Title	Credit Hours
<b>Group 1</b>	
Agriculture and Rural Development	2(2-0)
Introduction to Rural Sociology	2(2-0)
Economics of Livestock Production	2(2-0)
<b>Group 2</b>	
Project Management and Evaluation	2(2-0)
Introduction to Labor Economics	2(2-0)
Pricing of Agricultural Products	2(2-0)
<b>Group 3</b>	
Economics of Climate Change	2(2-0)
Introduction to Environmental Economics	2(2-0)
Ecological Economics	2(2-0)



## Scheme of Studies

# B.Sc. (Hons.)

## Agriculture Major in Farm Management

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
FM-501	Entrepreneurship	3(2-1)	Major
FM-503	Introduction and Role of ICT in Agriculture	3(2-1)	Major
FM-505	Agribusiness Marketing Strategies	3(3-0)	Major
FM-507	Introduction to Agricultural Laws	3(3-0)	Major
FM-509	Agricultural Production Economics	3(3-0)	Major
FM-511	Farm Planning and Budgeting using ICT	3(2-1)	Major
FM-513	Horticulture	3(1-2)	Major
<b>Total Credit Hours</b>		<b>21(16-5)</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
FM-502	Risks Assessment and Mitigation	3(2-1)	Major
FM-504	Human Resource Management and Business Ethics	3(3-0)	Major
FM-506	Sustainable Agriculture and Organic Farming	3(2-1)	Major
FM-508	Good Agricultural Practices (GAP) and other International Standards	3(3-0)	Major
FM-510	Precision Agriculture	3(2-1)	Major
FM-512	Integrated Pest Management	3(2-1)	Major
FM-514	Post-Harvest Management and Value Addition	3(2-1)	Major
<b>Total Credit Hours</b>		<b>21(16-5)</b>	

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
FM-601	Internship	10(0-10)	Internship

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
FM-602	Capstone Project	10(0-10)	Capstone Project



## Scheme of Studies

# BBA

## Agribusiness

### Semester-I

Course Code	Course Title	Credit Hours
BBAA-301	Introduction to Agribusiness	3(3-0)
ENV-301	Introduction to Environmental Science	3(2-1)
GE-303	Functional English	3(3-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
HORT-305	Orchard Planning and Management	3(2-1)
AEE-309	Agricultural Knowledge and Information System	3(2-1)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
QS-301 (Part-I)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>20(17-3)</b>

### Semester-II

Course Code	Course Title	Credit Hours
GE-301	Social and Religious Tolerance	2(2-0)
BBAA-302	Principles of Management	3(3-0)
BBAA-304	Principles of Microeconomics	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-403	Expository Writing	3(3-0)
GE-405	Quantitative Reasoning (II)	3(3-0)
<b>Total Credit Hours</b>		<b>19 (18-1)</b>

### Semester-III

Course Code	Course Title	Credit Hours
SES-303	Soil Science and Crop Production	3(2-1)
BBAA-401	Principles of Marketing	3(3-0)
ENT-402	General Plant Protection	3(2-1)
GE-402	Entrepreneurship	2(1-1)
BBAA-403	Principles of Macroeconomics	3(3-0)
BBAA-405	Natural Resource Management	3(3-0)
RS-409	Rural Sociology and Development	2(2-0)
QS-301 (Part-II)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>19(16-3)</b>

### Semester-IV

Course Code	Course Title	Credit Hours
SPS-401	Social Psychology and Self Development	2(2-0)
BBAA-402	Food and Agricultural Marketing	3(3-0)
BBAA-404	Consumer Behavior	3(3-0)
GE-404	Civics and Community Engagement	2(1-1)
FMP-405	Farm Mechanization	3(2-1)
BBAA-406	Livestock Business Management	3(2-1)
FST-501	Food Service Industry	3(3-0)
<b>Total Credit Hours</b>		<b>19(16-3)</b>





## Scheme of Studies

# BBA

## Agribusiness

### Semester-V

Course Code	Course Title	Credit Hours
BBAA-501	Agribusiness Supply Chain Management	3(3-0)
BBAA-503	Poultry Business Management	3(3-0)
BBAA-505	Agriculture Finance Management	3(3-0)
BBAA-507	Business Mathematics & Statistics	3(3-0)
BBAA-509	Business Ethics	3(3-0)
BBAA-511	Irrigation and Water Management	3(3-0)
QS-301 (Part-III)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>18(18-0)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
BBAA-502	Business Research Methods	3(3-0)
BBAA-504	Agribusiness Strategic Management	3(3-0)
BBAA-506	Retail Management	3(3-0)
BBAA-508	Basic Econometrics	3(2-1)
BBAA-510	Advertisement & Sales Management	3(3-0)
BBAA-512	Financial Accounting	3(3-0)
QS-302 (Part-IV)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>18(17-1)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
BBAA-601	Introduction to International Trade	3(3-0)
BBAA-603	Human Resource Management in Agriculture	3(3-0)
BBAA-605	Artificial Intelligence	3(2-1)
BBAA-607	Cluster and Corporate Farm Business	3(3-0)
BBAA-609	Organization Behavior	3(3-0)
BBAA-611	Agricultural Price Analysis	3(3-0)
QS-301 (Part-IV)	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>18(17-1)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
BBAA -612	Field Experience/ Internship	3(0-3)
BBAA -614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>
<b>Grand Total Credit Hours</b>		<b>137(119-18)</b>



## Scheme of Studies

# BS Sociology

### Semester-I

Course Code	Course Title	Credit Hours
MATH-301	Elementary Mathematics	3(3-0)
GE-303	Functional English	3(3-0)
ARE-301	Principles of Microeconomics	3(3-0)
SOC-301	Introduction to Social Work	3(2-1)
SOC-303	Principles to Sociology	3(3-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
<b>Total Credit Hours</b>		<b>20(19-1)</b>

### Semester-II

Course Code	Course Title	Credit Hours
SOC-302	Introduction to Political Science	3(3-0)
SOC-304	Sociology of Religion	3(3-0)
SOC-306	Pakistani Society and Culture	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-403	Expository Writing	3(3-0)
GE-405	Quantitative Reasoning (II)	3(3-0)
QS-302	Quranic Studies	1(1-0)
<b>Total Credit Hours</b>		<b>20(19-1)</b>

### Semester-III

Course Code	Course Title	Credit Hours
GE-301	Social and Religious Tolerance	2(2-0)
ENV-301	Introduction to Environmental Science	3(2-1)
SOC-401	Sociology of Human Rights	3(3-0)
SOC-403	Development of Social Thoughts	3(3-0)
SOC-405	Rural Development	3(3-0)
SOC-407	Comparative Social Institutions	3(3-0)
<b>Total Credit Hours</b>		<b>17(16-1)</b>

### Semester-IV

Course Code	Course Title	Credit Hours
GE-402	Entrepreneurship	2(1-1)
SOC-402	Sociological Theories	3(3-0)
GE-404	Civics and Community Engagement	2(1-1)
PSY-404	Introduction to Psychology	2(2-0)
SOC-404	Introduction to Social Research	3(2-1)
SOC-406	Social Anthropology	3(3-0)
SOC-408	Gender Studies	3(3-0)
<b>Total Credit Hours</b>		<b>18(15-3)</b>



## Scheme of Studies

# BS Sociology

### Semester-V

Course Code	Course Title	Credit Hours
SOC-501	Governance and Social Policy	3(3-0)
SOC-503	Sociology of Development	3(3-0)
SOC-505	Community Development	3(3-0)
SOC-507	Sociology of Globalization	3(3-0)
SOC-509	Sociology of Social Change and Development	3(3-0)
ARE-617	Project Management and Evaluation	3(3-0)
<b>Total Credit Hours</b>		<b>18(18-0)</b>

### Semester-VI

Course Code	Course Title	Credit Hours
SOC-502	Qualitative and Quantitative Research Methodology	3(2-1)
SOC-504	Sociology of Health	3(3-0)
SOC-506	Population Studies	3(3-0)
SOC-508	Rural Sociology	3(3-0)
	Major/ Elective-I (Group A)	3(3-0)
	Major/ Elective-II (Group A)	3(3-0)
<b>Total Credit Hours</b>		<b>18(17-1)</b>

### Semester-VII

Course Code	Course Title	Credit Hours
SOC-601	Political Sociology	3(3-0)
SOC-603	Sociology of Education	3(3-0)
SOC-605	Urban Sociology	3(3-0)
BBAA-609	Organizational Behavior	3(3-0)
	Major/ Elective-III (Group B)	3(3-0)
	Major/ Elective-IV (Group B)	3(3-0)
<b>Total Credit Hours</b>		<b>18(18-0)</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
SOC-612	Internship	3(0-3)
SOC-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6(0-6)</b>

### Major Elective Courses

Sr. No.	Course Code	Course Title	Credit Hours	Group*
1	SOC-510	Islamic Sociology	3(3-0)	A
2	SOC-512	NGO Management	3(2-1)	
3	SOC-514	Criminology	3(3-0)	
4	SOC-607	Corporate Social Responsibility	3(3-0)	B
5	SOC-609	Conflict Resolution	3(3-0)	
6	SOC-611	Social Impact Assessment	3(3-0)	
<b>Total</b>			<b>12(11-1)</b>	
*Two elective courses from each group				



# Institute of COMPUTING

Computer Science, Information Technology, Data Science

## Director's Message

Welcome to the Institute of Computing (IOC). At IOC, our dedicated faculty members are committed to exploring innovative approaches in collaboration with industry, as well as national and international organizations. Our research is focused on solving community problems using cutting-edge computing technologies, with a strong emphasis on addressing local issues.

Established in 2023, the Institute of Computing stands as an independent and prestigious entity. Our energetic team comprises 17 faculty members with diverse expertise in Artificial Intelligence, Computer Vision, IoT, Computer Networks, Software Engineering, Natural Language Processing, Cyber Security, and Databases. We actively encourage our students to participate in international hackathons and competitions, fostering a spirit of innovation and excellence. Since 2019, we have consecutively won regional positions at the Microsoft Imagine Cup and secured the National position in 2023. Our team achieved first place at the National Level in the Berlin Falling Walls Idea Pitch competition. We look forward to your contributions and achievements as part of the IOC family.



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 Digital Image Processing



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 Skeleton Extraction and Animation, Digital Image Processing  
& Machine Learning



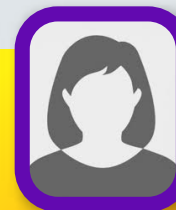
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## Scheme of Studies

# BS

## Computer Science

(Semester I-VIII)

### SEMESTER-I

Course Code	Course Title	Credit Hours	Category
GE-309	Application of Information & Communication Technologies	3 (2-1)	GER
CS-303	Programming Fundamentals	4 (3-1)	Core
PHY-305	Applied Physics	3 (2-1)	GER
GE-407	Ideology & Constitution of Pakistan	2 (2-0)	GER
GE-303	Functional English	3 (3-0)	GER
<b>Total Cr. Hrs: 15</b>			
MATH-311	General Mathematics	3(3-0)	Deficiency
GE-301	Social & Religious Tolerance	2(2-0)	Audit

### SEMESTER-II

Course Code	Course Title	Credit Hours	Category
GE-305	Quantitative Reasoning – I	3 (3-0)	GER
CS-304	Object Oriented Programming	4 (3-1)	Core
GE-403	Expository Writing	3 (3-0)	GER
GE-307	Islamic Studies \ Ethics (Non-Muslims)	2 (2-0)	GER
CS-312	Digital Logic Design	3 (2-1)	Core
<b>Total Cr. Hrs:18</b>			
MATH-314	Elementary Mathematics	3(3-0)	Deficiency
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-III

Course Code	Course Title	Credit Hours	Category
CS-401	Data Structures	4 (3-1)	Core
CS-403	Comp. Organization & Assembly Language	3 (2-1)	Core
MATH-405	Linear Algebra	3 (3-0)	Allied
CS-407	Computer Networks	3 (2-1)	Core
GE-405	Quantitative Reasoning II	3 (3-0)	GER
CS-409	Software Engineering	3 (3-0)	Core
<b>Total Cr. Hrs:19</b>			

### SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
MATH-402	Multivariable Calculus	3 (3-0)	Allied
CS-404	Operating Systems	3 (2-1)	Core
CS-406	Database Systems	4 (3-1)	Core
CS-408	Analysis of Algorithms	3 (3-0)	Core
CS-410	Computer Architecture	3 (3-0)	CS Core
STAT-412	Probability & Statistics	3 (3-0)	Allied
<b>Total Cr. Hrs:19</b>			
QS-302	Quranic Studies	1(1-0)	Audit



## Scheme of Studies

# BS

## Computer Science

(Semester I-VIII)

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
CS-501	Artificial Intelligence	3 (2-1)	Core
CS-503	Theory of Automata	3 (3-0)	CS Core
IT-506	Web Technologies	3 (2-1)	CS Elective
CS-507	Information Security	3 (2-1)	Core
CS-504	Digital Image Processing	3 (2-1)	DS Core
BBAA-505	Financial Accounting	3 (3-0)	Allied
<b>Total Cr. Hrs:17</b>			

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
CS-502	Advance Database Management Systems	3 (2-1)	CS Core
CS-610	Game Development	3 (2-1)	CS Core
CS-506	Compiler Construction	3 (2-1)	CS Core
DS-508	Machine Learning	3 (2-1)	DS Elective
CS-505	Advanced Programming	3 (2-1)	CS Elective
GE-512	Introduction to Management	2 (2-0)	GER
<b>Total Cr. Hrs:18</b>			
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
CS-601	Parallel & Distributed Computing	3 (2-1)	CS Core
CS-603	Mobile Application Development	3 (2-1)	CS Elective
CS-605	HCI & Computer Graphics	3 (2-1)	CS Core
CS-609	Software Testing & Quality Assurance	3(2-1)	CS Elective
DS-607	Big Data Analytics	3(2-1)	DS Core
GE- 402	Entrepreneurship	2(2-0)	GER
GE-611	Professional Practices	2 (2-0)	GER
<b>Total Cr. Hrs:16</b>			

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
CS-612	Internship	3 (0-3)	Internship
CS-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Cr. Hrs: 6(0-6)</b>			
QS-302	Quranic Studies	1(1-0)	Audit

<b>Total Credit Hours</b>	<b>130</b>
<b>Deficiency Courses</b>	<b>06</b>
<b>Credit Hours</b>	

#### Note:

1. F.Sc. (Pre-medical) students will study MATH-311 in 1<sup>st</sup> semester & MATH-314 in 2<sup>nd</sup> semester as deficiency course.
2. 1 Cr Hr of practical refers to 3 Contact Hours in lab.





## Scheme of Studies

# BS

## Data Science

(Semester I-VIII)

### SEMESTER-I

Course Code	Course Title	Credit Hours	Category
GE-309	Application of Information & Communication Technologies (ICT)	3(2-1)	General
CS-303	Programming Fundamentals	4(3-1)	Core
PHY-305	Applied Physics	3(2-1)	General
GE-407	Ideology & Constitution of Pakistan	2(2-0)	General
GE-303	Functional English	3(3-0)	General
<b>Total Credit Hours:</b>		<b>15</b>	
MATH-311	General Mathematics	3(3-0)	Deficiency
GE-301	Social & Religious Tolerance	2(2-0)	Audit

### SEMESTER-II

Course Code	Course Title	Credit Hours	Category
GE-305	Quantitative Reasoning - I	3(3-0)	GER
CS-304	Object Oriented Programming	4(3-1)	Core
GE-403	Expository Writing	3(3-0)	GER
GE-307	Islamic Studies / Ethics (Non-Muslims)	2(2-0)	GER
CS-310	Digital Logic Design	3(2-1)	Core
<b>Total Credit Hours</b>		<b>15</b>	
MATH-314	Elementary Mathematics	3(3-0)	Deficiency
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-III

Course Code	Course Title	Credit Hours	Category
CS-401	Data Structures	4(3-1)	Core
CS-403	Computer Organization & Assembly Language	3(2-1)	Core
MATH-405	Linear Algebra	3(3-0)	Allied
GE-405	Quantitative Reasoning-II	3(3-0)	GER
CS-407	Computer Networks	3(2-1)	Core
CS-409	Software Engineering	3(3-0)	Core
<b>Total Credit Hours</b>		<b>19</b>	

### SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
MATH-402	Multivariable Calculus	3(3-0)	Allied
CS-404	Operating Systems	3(2-1)	Core
CS-406	Database Systems	4(3-1)	Core
CS-408	Analysis of Algorithms	3(3-0)	Core
DS-410	Introduction to Data Science	3(2-1)	DS Core
STAT-412	Probability & Statistics	3(3-0)	Allied
<b>Total Credit Hours</b>		<b>19</b>	
QS-302	Quranic Studies	1(1-0)	Audit



## Scheme of Studies

# BS

## Data Science

(Semester I-VIII)

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
CS-501	Artificial Intelligence	3(2-1)	Core
CS-503	Theory of Automata	3(3-0)	DS Elective
DS-505	Data Mining	3(2-1)	DS Core
CS-507	Information Security	3(2-1)	Core
DS-509	Advanced Statistics	3(2-1)	DS Core
BBAA-505	Financial Accounting	3(3-0)	Allied
<b>Total Credit Hours</b>		<b>18</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
DS-502	Text Mining	3(2-1)	DS Elective
DS-504	Data Warehousing & Business Intelligence	3(2-1)	DS Core
DS-506	Data Visualisation	3(2-1)	DS Core
DS-508	Machine Learning	3(2-1)	DS Elective
DS-510	IoT in Digital Agriculture	3(2-1)	DS Elective
GE-512	Introduction to Management	2(2-0)	GER
<b>Total Credit Hours</b>		<b>19</b>	
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
CS-601	Parallel & Distributed Computing	3(2-1)	DS Core
IT-603	Mobile Application Development	3(2-1)	DS Elective
DS-605	Artificial Neural Networks & Deep Learning	3(2-1)	DS Elective
DS-607	Big Data Analytics	3(2-1)	DS Elective
IT-609	Cloud Computing	3(2-1)	DS Elective
GE-402	Entrepreneurship	2(1-1)	GER
GE-611	Professional Practices	2(2-0)	GER
<b>Total Credit Hours</b>		<b>19</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
CS-612	Field Experience/ Internship	3(0-3)	Internship
CS-614	Capstone Project	3(0-3)	Capstone Project
<b>Total Credit Hours</b>		<b>6</b>	
QS-302	Quranic Studies	1(1-0)	Audit
<b>Total Credit Hours of the Program</b>		<b>130</b>	

Note:

1. F.Sc. (Pre-medical) will study MATH-311 in 1st semester & MATH-314 in 2nd semester as deficiency course.
2. 1 CrHr of practical refers to 3 Contact Hours in lab.



## Scheme of Studies

# BS

## Information Technology

(Semester I-VIII)

### SEMESTER-I

Course Code	Course Title	Credit Hours	Category
GE-309	Application of Information & Communication Technologies	3 (2-1)	GER
CS-303	Programming Fundamentals	4 (3-1)	Core
PHY-305	Applied Physics	3 (2-1)	GER
GE-407	Ideology & Constitution of Pakistan	2 (2-0)	GER
GE-303	Functional English	3 (3-0)	GER
<b>Total Cr. Hrs:15</b>			
MATH-311	General Mathematics	3(3-0)	Deficiency
GE-301	Social & Religious Tolerance	2(2-0)	Audit

### SEMESTER-II

Course Code	Course Title	Credit Hours	Category
GE-305	Quantitative Reasoning – I	3 (3-0)	GER
CS-304	Object Oriented Programming	4 (3-1)	Core
GE-403	Expository Writing	3 (3-0)	GER
GE-307	Islamic Studies \ Ethics (Non-Muslims)	2 (2-0)	GER
CS-312	Digital Logic Design	3 (2-1)	Core
<b>Total Cr. Hrs:18</b>			
MATH-314	Elementary Mathematics	3(3-0)	Deficiency
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-III

Course Code	Course Title	Credit Hours	Category
CS-401	Data Structures	4 (3-1)	Core
CS-403	Comp. Organization & Assembly Language	3 (2-1)	Core
MATH-405	Linear Algebra	3 (3-0)	Allied
CS-407	Computer Networks	3 (2-1)	Core
GE-405	Quantitative Reasoning II	3 (3-0)	GER
CS-409	Software Engineering	3 (3-0)	Core
<b>Total Cr. Hrs:19</b>			

### SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
MATH-402	Multivariable Calculus	3 (3-0)	Allied
CS-404	Operating Systems	3 (2-1)	Core
CS-406	Database Systems	4 (3-1)	Core
CS-408	Analysis of Algorithms	3 (3-0)	Core
CS-410	Computer Architecture	3 (3-0)	CS Core
STAT-412	Probability & Statistics	3 (3-0)	Allied
<b>Total Cr. Hrs:19</b>			
QS-302	Quranic Studies	1(1-0)	Audit



## Scheme of Studies

# BS

## Information Technology (Semester I-VIII)

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
CS-501	Artificial Intelligence	3(2-1)	Core
CS-503	Theory of Automata	3(3-0)	IT Elective
IT-505	Database Administration & Management	3(2-1)	IT Core
CS-507	Information Security	3(2-1)	Core
IT-509	Virtual Systems & Services	3(2-1)	IT Elective
BBAA-505	Financial Accounting	3(3-0)	Allied
<b>Total Cr. Hrs:17</b>			

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
IT-502	Network Security	3 (2-1)	IT Elective
IT-504	Enterprise Systems	3 (2-1)	IT Elective
IT-506	Web Technologies	3 (2-1)	IT Core
DS-508	Machine Learning	3 (2-1)	IT Elective
IT-510	Information Technology Infrastructure	3 (2-1)	IT Core
GE-512	Introduction to Management	2 (2-0)	GER
GE-404	Civics and Community Engagement	2(2-0)	GER
<b>Total Cr. Hrs:18</b>			
QS-302	Quranic Studies	1(1-0)	Audit

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
CS-601	Parallel & Distributed Computing	3(2-1)	IT Core
CS-603	Mobile Application Development	3(2-1)	IT Elective
IT-605	Systems & Network Administration	3(2-1)	IT Core
IT-607	Cyber Security	3(2-1)	IT Core
IT-609	Cloud Computing	3(2-1)	IT Elective
GE-402	Entrepreneurship	2(2-0)	GER
GE-611	Professional Practices	2(2-0)	GER
<b>Total Cr. Hrs:16</b>			

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
CS-612	Internship	3(0-3)	Core
CS-614	Capstone Project	3(0-3)	
<b>Total Cr. Hrs: 6(0-6)</b>			
QS-302	Quranic Studies	1(1-0)	Audit

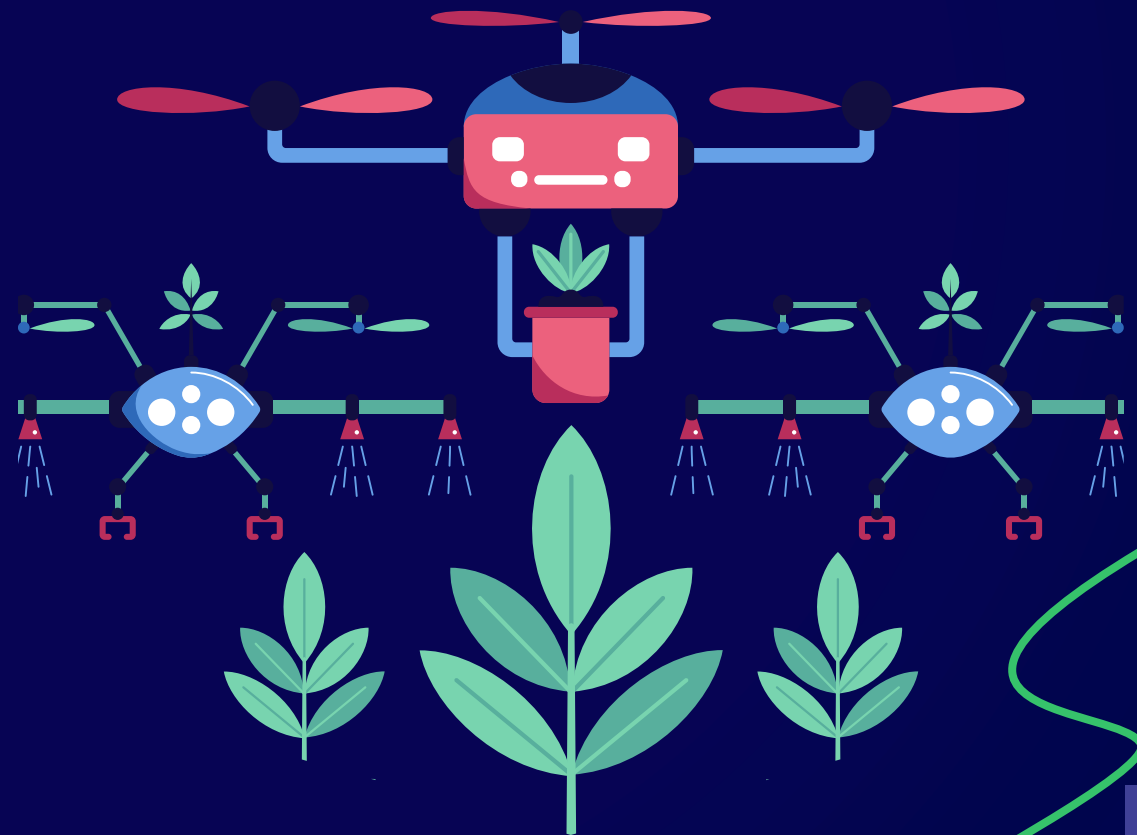
<b>Total Credit Hours</b>	<b>130</b>
<b>Deficiency Courses Credit Hours</b>	<b>06</b>

Note:

1. F.Sc. (Pre-medical) students will study MATH-311 in 1<sup>st</sup> semester & MATH-314 in 2<sup>nd</sup> semester as deficiency course.
2. 1 Cr Hr of practical refers to 3 Contact Hours in lab.



**FACULTY OF  
AGRICULTURAL,  
BIOSYSTEMS  
ENGINEERING &  
TECHNOLOGY  
(FABSET)**





Department of  
**Agricultural  
Engineering**





## Department of **Agricultural Engineering**

The Department of Agricultural Engineering at MNS-University of Agriculture, Multan (MNSUAM) integrates engineering principles with natural and artificial systems to support agriculture, agro-industries, and engineering business enterprises. Engineers/technologists would focus on solving complex, rapidly changing problems and develop technology related to agro-industrial machinery and processes, energy and water use efficiency, renewable energy development, and instrumentation and robotics.

Internship programs are a distinction of this Department. These would emphasize hands-on practice; therefore, internship programs make these degree programs unique in the country. The department also focuses on developing leadership and entrepreneurial skills, providing opportunities for community service and professional and personal growth through specialized partner institutions and professional organizations.

### **Vision:**

Be a leading source of knowledge and support for agricultural engineering and technology by developing innovative technologies through advanced research and producing qualified professionals with problem-solving approach.

### **Mission:**

Develop and promote the latest techniques in Agriculture Engineering and Technology domain with respect to water use efficiency, farm mechanization, irrigation, agriculture processing, agro based industries, and natural resource management.

### **Programs Offered:**

# B.Sc

**Agro-Industrial  
Engineering Technology**

## ***Mission:***

To produce Agro based industrial technologists equipped with knowledge, skill, entrepreneurial and ethical attributes for enhancing viable industrial growth on sustainable goals.

## ***Introduction***

Competitive agro industries enhance the quality of agricultural produce, create employment and generate income for farming and non-farming communities. In developing countries, fast urbanization and change in consumer preferences are met by agro-industrial development. The full potential of agro industries as an engine for economic development has not yet been realized in Pakistan. This is due to a serious lack of technical expertise and understanding related to produce properties, value-addition processes, and machinery used in agro-industries of the country.

MNSUAM is the first University in Pakistan that has taken the initiative to start B.Sc. Agro-Industrial Engineering Technology program to strengthen the technical workforce in agro-industries of the country, provide better quality grain and fibre, and help industries grow to contribute to the country's economy. The degree program offers a unique applied skill and knowledge to begin a career as an agro-industrial technologist. This programme has been developed in consultation with industry and academics to provide students with a combined formal education curriculum and practical experience to gain an edge through genuine industry knowledge.

The following major streams of B.Sc. Agro-Industrial Engineering Technology program are:

- Feed Milling Technology
- Grain Milling Technology
- Sugarcane Processing Technology
- Cotton Processing Technology
- Milk Processing Technology
- Food Processing Technology

## ***Program Educational Objectives (PEOs)***

1. Demonstrate technical knowledge and skills in agro-based industries.
2. Identify and solve technical and societal problems.
3. Apply advanced skills for improving professional abilities to contribute in the technology domain.
4. Work effectively as a team member or lead multidisciplinary teams while demonstrating the interpersonal, management skills, social and ethical responsibilities.



## Program Learning Outcomes (PLOs)

Characteristic	Engineering Technologist Graduate
<b>Engineering Technology Knowledge:</b> Breadth, depth and type of knowledge, both theoretical and practical	<b>SA1:</b> Apply knowledge of mathematics, natural science, computing and engineering fundamentals and an engineering specialization as specified in SK1 to SK4 respectively to defined and applied engineering procedures, processes, systems, or methodologies.
<b>Problem Analysis</b> Complexity of analysis	<b>SA2:</b> Identify, formulate, research literature and analyse broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization. (SK1 to SK4)
<b>Design/development of solutions:</b> Breadth and uniqueness of engineering problems i.e., the extent to which problems are original and to which solutions have not previously been identified or codified	<b>SA3:</b> Design solutions for broadly- defined engineering technology problems and contribute to the design of systems, components, or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (SK5)
<b>Investigation:</b> Breadth and depth of investigation and experimentation	<b>SA4:</b> Conduct investigations of broadly- defined engineering problems; locate, search, and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions (SK8)
<b>Tool Usage:</b> Level of understanding of the appropriateness of technologies and tools	<b>SA5:</b> Select and apply, and recognize limitations of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly defined engineering problems (SK2 and SK6)
<b>The Engineer and the World:</b> Level of knowledge and responsibility for sustainable development	<b>SA6:</b> When solving broadly defined engineering problems, analyse and evaluate sustainable development. impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment (SK1, SK5, and SK7)
<b>Ethics:</b> Understanding and level of practice	<b>SA7:</b> Understand and commit to professional ethics and norms of engineering technology practice including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (SK9)
<b>Individual and Collaborative Teamwork:</b> Role in and diversity of team	<b>SA8:</b> Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multi-disciplinary, face-to-face, remote, and distributed settings (SK9)
<b>Communication:</b> Level of communication according to type of	<b>SA9:</b> Communicate effectively and inclusively on broadly defined engineering activities with the engineering community and with society at large, such as being able to comprehend and write

## Program Learning Outcomes (PLOs)

activities performed	effective reports and design documentation, make effective presentations, considering cultural, language, and learning differences.
<b>Project Management and Finance:</b> Level of management required for differing types of activity	<b>SA10:</b> Apply knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
<b>Lifelong learning:</b> Duration and manner	<b>SA11:</b> Recognize the need for, and have the ability for i) independent and life- long learning and ii) critical thinking in the face of new specialist technologies (SK8)

## Knowledge Profile

**SK1:** A systematic, theory-based understanding of the natural sciences applicable to the sub- discipline and awareness of relevant social sciences.

**SK2:** Conceptually based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed consideration and use of models applicable to the sub-discipline.

**SK3:** A systematic, theory-based formulation of engineering fundamentals required in an accepted sub-discipline.

**SK4:** Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for an accepted sub-discipline.

**SK5:** Knowledge, including efficient resource use, environmental impacts, whole-life cost, re-use of resources, net zero carbon, and similar concepts, that supports engineering design and operations using the technologies of a practice area.

**SK6:** Knowledge of engineering technologies applicable in the sub-discipline.

**SK7:** Knowledge of the role of technology in society and identified issues in applying engineering technology, such as public safety and sustainable development (represented by the 17 UN- SDGs).

**SK8:** Engagement with the current technological literature of the discipline and awareness of the power of critical thinking.

**SK9:** Ethics, inclusive behaviour, and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

### Eligibility Criteria:

F.Sc. (Pre-Engineering, Pre-Medical, Pre-Agriculture)/ICS/A-Level/DAE (Three Years) i.e Civil, Mechanical, Auto and farm, Electrical, Electronics, Chemical, Instrumentation and any relevant with minimum 50 % marks.

### Merit Criteria:

- Intermediate 50%
- Matric 20%
- Entry Test 30%

*MNSUAM will accept entry test taken by MNSUAM, UET, UAF and HEC.*

### Seat distribution:

Pre-Engineering: 40% of total seats

DAE (Three Years): 40% of total students

Pre-Medical/Pre-Agriculture/ICS/A-Level: 20% of total seats

Note:

(1) If no or fewer applications is received in one or more of the categories of applicants, the seats of those categories will be merged in the other category applicants.

(2) \*The Pre-Medical students will study the deficiency course of Mathematics.

# Department of Agricultural Engineering



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Coordinator/Associate Professor

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💡 Environmental Engineering



**ENGR. DR. UMAIR SULTAN**  
Assistant Professor

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💡 Thermal Power Engineering



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🎓 Ph.D

💡 Water Resource Engineering and Wastewater Treatment



**ENGR. DR. SHAZIA HANIF**  
Assistant Professor

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🎓 Ph.D

💡 Energy and Environmental Engineering, Solar Drying, Adsorption, Drying and cooling



**ENGR. ABDUL ALEEM**  
Subject Expert

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🎓 M.Sc. (Hons.)  
Agricultural Engineering

💡 Farm Mechanization



**DR. MUHAMMAD ABID**  
Assistant Professor

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🎓 Ph.D

💡 Condense Matter Physics



**ENGR. DR. M. SAIFULLAH**  
Assistant Professor

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🎓 Ph.D

💡 Groundwater, climate change, numerical modelling



**ENGR. SHAHZAD AHMED**  
Lecturer  
(Study Leave)

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🎓 M.Sc. Engineering

💡 Water Resources Engineering and RS & GIS



**ENGR. DR. MOHSIN NAWAZ**  
Assistant Professor

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🎓 Ph.D

💡 Water/Wastewater Treatment, Photocatalysis, Mechanical Cotton Picking



**ENGR. DR. M. MOHSIN KHAN**  
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🎓 Ph.D

💡 Water Resources and Remote Sensing

# Department of Agricultural Engineering



**ENGR. FARRUKH EHSAN**  
Lecturer

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Agricultural Engineering  
🔧 Farm Mechanization and Postharvest Engineering



**ENGR. M. KASHIF** (Study Leave)  
Lecturer

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Agricultural Engineering  
🔧 Energy and Environment



**ENGR. SAQIB YASEEN**  
Lab Engineer

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🔧 Industrial Manufacturing



**ENGR. OMER FAROOQ**  
Lab Engineer

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Agricultural Engineering  
🔧 Irrigation and Drainage





## Scheme of Studies

# B.Sc.

Agro Industrial Engineering Technology

### SEMESTER-I

Course Code	Course Title	Credit Hours	Category
AIET-101	Technical Drawing and Graphics	2(1-1)	E.F
AIET-103	Workshop Technology	3(1-2)	M.B.D
AIET-105	Introduction to Agro-Based Industry	3(2-1)	M.B.D
CSIT-101	Information and Communication Technology	3(2-1)	C.S.I.T
NS-101	Applied Mathematics-I	3(3-0)	N.S
SS-101	Islamic Studies/Ethics	2(2-0)	S.S
SS-103	Pakistan Studies	2(2-0)	S.S
MATH-301	Elementary Mathematics	3(3-0)	Deficiency
<b>Total Credit Hours</b>		<b>13+5=18</b>	

### SEMESTER-II

Course Code	Course Title	Credit Hours	Category
AIET-102	Computer Aided Drawing	2(1-1)	E.F
AIET-104	Fluid Mechanics	3(2-1)	E.F
AIET-106	Industrial Material	3(2-1)	M.B.D
NS-102	Applied Physics	3(2-1)	N.S
NS-104	Applied Mathematics-II	3(3-0)	N.S
SS-102	Composition and Communication Skills	3(3-0)	S.S
<b>Total Credit Hours</b>		<b>13+4=17</b>	

### SEMESTER-III

Course Code	Course Title	Credit Hours	Category
AIET-201	Applied Thermodynamics	3(2-1)	M.B.D
AIET-203	Farm Mechanization	3(2-1)	M.B.D
AIET-205	Environment Health and Safety	3(2-1)	E.F
AIET-207	Industrial Material Handling and Processes	3(2-1)	M.B.D
NS-201	Industrial Chemistry	3(2-1)	N.S
NS-203	Applied Statistics	3(2-1)	N.S
<b>Total Credit Hours</b>		<b>13+5=18</b>	

### SEMESTER-IV

Course Code	Course Title	Credit Hours	Category
AIET-202	Engine Operation and Maintenance	3(2-1)	M.B.D
AIET-204	Manufacturing Processes	3(2-1)	M.B.D
AIET-206	Post-Harvest Processes	3(2-1)	M.B.D
AIET-208	Grain Science for Industry	3(2-1)	M.B.D
MS-202	Project Management	2(2-0)	M.S
SS-202	Professional Ethics	2(2-0)	S.S
SS-204	Technical Report Writing	2(2-0)	S.S
<b>Total Credit Hours</b>		<b>14+4=18</b>	



## Scheme of Studies

# B.Sc.

## Agro Industrial Engineering Technology

### SEMESTER-V

Course Code	Course Title	Credit Hours	Category
AIET-301	Farm and Industrial Structures	3(2-1)	M.B.D
AIET-303	Instrumentation and Control	3(2-1)	M.B.D
AIET-305	Total Quality Management	3(2-1)	M.B.D
AIET-307	Industrial Processes and Management	3(2-1)	M.B.D
MS-301	Entrepreneurship	2(2-0)	M.S
<b>Technology Elective I (Student will opt one course)</b>			
AIET-309	Feed Milling Technology	3(2-1)	M.B.D
AIET-311	Cotton Ginning and Fiber Technology	3(2-1)	M.B.D
AIET-313	Sugar Technology	3(2-1)	M.B.D
<b>Total Credit Hours</b>		<b>12+05=17</b>	

### SEMESTER-VI

Course Code	Course Title	Credit Hours	Category
AIET-302	Automation and Robotics	3(2-1)	M.B.D
AIET-304	Boiler Operation and Maintenance	3(2-1)	M.B.D
AIET-306	Industrial Software Applications	3(2-1)	M.B.D
AIET-308	High Efficiency Irrigation Systems	3(2-1)	M.B.D
MS-302	Supply Chain Management	2(2-0)	M.S
<b>Technology Elective II (Student will opt one course)</b>			
AIET-310	Grain Milling Technology	3(2-1)	M.B.D
AIET-312	Technology of Oils and Fats	3(2-1)	M.B.D
AIET-314	Seed Science and Seed Processing Technology	3(2-1)	M.B.D
<b>Total Credit Hours</b>		<b>12+05=17</b>	

### SEMESTER-VII

Course Code	Course Title	Credit Hours	Category
AIET-401	Supervised Industrial Training I	16(0-16)	M.B.D
<b>Total Credit Hours</b>		<b>00+16=16</b>	

### SEMESTER-VIII

Course Code	Course Title	Credit Hours	Category
AIET-402	Supervised Industrial Training II	16(0-16)	M.B.D
<b>Total Credit Hours</b>		<b>00+16=16</b>	

Total credit Hours=137

E.F = Engineering Technology Foundation

M.B.D = Major-based Depth

N.S = Natural Science

S.S = Social Sciences

M.S = Management Sciences



## Scheme of Studies

# B.Sc.

## Agricultural Engineering

### SEMESTER-I

Course Code	Title	Knowledge Area	Theory	Lab	Total
FMP-301	Engineering Drawing & Graphics	Engineering Foundation	1	1	2
CS- 301	Information and Communication Technologies (ICT)	Computer Information Science and	2	1	3
PHY- 301	Applied Physics	Natural Sciences	2	1	3
MATH-301	Calculus and Analytical Geometry	Natural Sciences	3	0	3
AGRON- 301	Basic Agriculture	Natural Sciences	1	1	2
SSH- 301	Functional English	Humanities	2	0	2
IS-301	Islamic Studies and Ethics	Humanities	2	0	2
IS- 303	Translation of the Holy Quran I	Humanities	1	0	1
<b>Total</b>			<b>14</b>	<b>4</b>	<b>18</b>

### SEMESTER-II

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE- 302	Fluid Mechanics	Engineering	2	1	3
FMP- 302	Metallurgy and Workshop Practices	Engineering	1	1	2
WRE- 302	Surveying and leveling	Engineering	2	1	3
EE- 302	Engineering Materials	Engineering	1	1	2
MATH- 302	Linear Algebra	Non- Engineering	3	0	3
EE- 304	Industrial Chemistry	Non- Engineering	1	1	2
SSH- 302	Communication Skills	Non- Engineering	2	0	2
IS- 302	Translation of the Holy Quran II	Non- Engineering	1	0	1
<b>Total</b>			<b>13</b>	<b>5</b>	<b>18</b>

### SEMESTER-III

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE-401	Soil Mechanics	Engineering	2	1	3
WRE-403	Engineering Mechanics	Engineering	2	1	3
FMP- 401	Applied Thermodynamics	Engineering	2	1	3
FMP- 403	Manufacturing Engineering	Engineering	1	1	2
MATH- 401	Differential Equations	Non- Engineering	3	0	3
SSH-401	Pakistan Studies and Global Perspective	Non- Engineering	2	0	2
IS- 401	Translation of the Holy Quran III	Non- Engineering	1	0	1
<b>Total</b>			<b>13</b>	<b>4</b>	<b>17</b>



## Scheme of Studies

# B.Sc.

## Agricultural Engineering

### SEMESTER-IV

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE- 402	Open Channel Hydraulics	Engineering	2	1	3
EE- 402	Strength of Materials	Engineering	2	1	3
EE- 404	Environmental Engineering	Engineering	2	1	3
FMP- 402	Instrumentation and Control	Engineering	2	1	3
CS- 402	Artificial Intelligence (AI)	Engineering	1	1	2
SES- 402	Soil Science	Non-Engineering	2	1	3
IS- 402	Translation of the Holy Quran III	Non-Engineering	1	0	1
<b>Total</b>			<b>12</b>	<b>6</b>	<b>18</b>

### SEMESTER-V

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE- 501	Pumps and Tube wells	Engineering	1	1	2
FMP- 501	IC Engines and Tractors	Engineering	2	1	3
FMP- 503	Machine Design	Engineering	2	1	3
STAT- 501	Probability and statistics	Non- Engineering	3	0	3
MATH- 501	Numerical Analysis	Non- Engineering	2	0	2
SSH- 501	Technical Writing and Presentation Skills	Non- Engineering	2	0	2
SSH- 503	Social Sci Elective-I (Sociology for Engineers)	Non- Engineering	2	0	2
IS- 501	Translation of the Holy Quran III	Non- Engineering	1	0	1
<b>Total</b>			<b>15</b>	<b>3</b>	<b>18</b>

### SEMESTER-VI

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE- 502	Engineering Hydrology	Engineering	2	1	3
WRE- 504	Irrigation Engineering	Engineering	2	1	3
EE- 502	MDE Elective-I (Wastewater Engineering)	Engineering	2	1	3
EE- 504	Rural Electrification	Engineering	1	1	2
FMP- 504	Earth Moving Machinery	Engineering	1	1	2
AENG- 502	Management Elective-I (Engineering Project Management)	Non- Engineering	2	0	2
SSH- 502	Social Sci Elective-II (Economics for Engineers)	Non- Engineering	2	0	2
IS- 502	Translation of the Holy Quran VI	Non- Engineering	1	0	1
<b>Total</b>			<b>13</b>	<b>5</b>	<b>18</b>





## Scheme of Studies

# B.Sc.

## Agricultural Engineering

### SEMESTER-VII

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE-601	GIS & Remote Sensing	Engineering	1	1	2
EE- 601	Solid Waste Engineering	Engineering	2	1	3
FMP-601	Agricultural Process Engineering	Engineering	2	1	3
FMP-603	Farm Machinery and Automation	Engineering	2	1	3
WRE/EE/ FMP-605	Engg Elective-I	Engineering	1	1	2
AENG-601	Final Year Design Project (FYDP)-I	Engineering	0	3	3
SSH-601	Management Elective- II (Entrepreneurship)	Non- Engineering	2	0	2
IS- 601	Translation of the Holy Quran VII	Non- Engineering	1	0	1
<b>Total</b>			<b>11</b>	<b>8</b>	<b>19</b>

### SEMESTER-VIII

Course Code	Title	Knowledge Area	Theory	Lab	Total
WRE-602	Drainage Engineering	Engineering	2	1	3
EE-602	Farm Structures and Control Sheds	Engineering	2	1	3
FMP-602	MDE Elective-II (Alternate and Renewable Energy (ARE))	Engineering	1	1	2
WRE/EE/ FMP-6xx	Engg. Elective-II	Engineering	2	1	3
WRE/EE/ FMP-6xx	Engg. Elective-III	Engineering	2	1	3
AENG-602	Final Year Design Project (FYDP) - II	Engineering	0	3	3
IS- 602	Translation of the Holy Quran VIII	Non- Engineering	1	0	1
<b>Total</b>			<b>10</b>	<b>8</b>	<b>18</b>



# FACULTY OF VETERINARY AND ANIMAL SCIENCES



**MNS-University of Agriculture, Multan**  
**[www.mnsuam.edu.pk](http://www.mnsuam.edu.pk)**





**DR. MUHAMMAD ASIF RAZA**

Ph.D (Germany), Post Doc (Mexico), CaBEA (South Korea)



## **FACULTY OF VETERINARY AND ANIMAL SCIENCES**

### **Dean's Message**

Welcome to the Faculty of Veterinary and Animal Sciences. I am honored to serve as Dean and to be leading our efforts in Veterinary Sciences, Biomedical education, community outreach and research in different areas. Faculty of Veterinary and Animal Sciences offers different Undergraduate and Postgraduate programs related in the domain of Life Sciences, Public Health and Biomedical Sciences through a combination of traditional and innovative technological approaches for excellent teaching and learning. Collectively, our students benefited from the expertise and experience of our highly talented faculty members and the rich collaborative environment. As we focus in producing exceptional Animal Scientists, Specialists and Biomedical researchers, our administrative team and our faculty members never forget that academic excellence must be matched by passion, integrity and professionalism. Our future depends on producing not only future scientists, but also leaders which will play an important role in ensuring Food Security, health and well-being. We are committed to diversity and inclusion in our workplace and within our students and to ensuring that our Faculty is a place where every member of our Faculty family feels valued, seen, heard and always welcomed. We appreciate your interest in our Faculty and invite you to visit or contact us for additional information.



# Faculty of Veterinary and Animal Sciences (FVAS)

Faculty of Veterinary and Animal Sciences (FVAS) was established during academic year 2019-2020 as 4<sup>th</sup> faculty of MNS University of Agriculture, Multan. Faculty has outstanding and dedicated team of 26 faculty members (15 PhD and 11 Non PhD) with diverse background and academic experiences at world's renowned universities from Germany, France, China, and Turkey. The faculty is aimed to earn repute of excellence with intellect and future foresight. Faculty of Veterinary and Animal Sciences is comprised of following Seven Departments.

1. Department of Pathobiology and Biomedical Sciences
2. Department of Animal and Dairy Sciences
3. Department of Clinical Sciences
4. Department of Poultry Science
5. Department of Zoology, Wildlife and Fisheries
6. Department of Biochemistry and Biotechnology
7. Department of Pharmacy
8. Para Veterinary School (Jalalpur Pir Wala )

## Programs Offered at Main Campus

Following Undergraduate and Postgraduate degree programs are being offered in the Faculty of Veterinary and Animal Sciences in addition to introductory courses of B.Sc. (Hons.) Agriculture and BBA Agribusiness.

1. B.Sc. (Hons.) Poultry Sciences (4 years)
2. B.Sc. (Hons.) Animal Sciences (4 years)
3. BS Zoology (4 years)
4. BS Microbiology (4 years)
5. BS Biochemistry (4 years)
6. BS Biotechnology (4 Years)
7. BS Medical Laboratory Technology (4 years)
8. BS Public Health (4 years)

## Diploma Program

Livestock Assistant Diploma (2 years)

### Programs Offered at Jalalpur Pirwala Campus

1. BS Zoology (4 years)
2. Livestock Assistant Diploma (2 years)



## DEPARTMENT OF PATHOBIOLOGY AND BIOMEDICAL SCIENCES

### Programs Being Offered

- BS Public Health
- BS Medical Lab Technology
- BS Microbiology

### Introduction

The Department of Pathobiology and Biomedical Sciences has following major sections, Microbiology, Pathology, Parasitology, Medical Lab and Molecular Biology, and Public Health. The Department is actively engaged in teaching, research, and outreach activities. Research is directed toward basic biomedical and allied health sciences, including microbiology, parasitology, pathology, immunology, molecular biology, epidemiology and public health. Our faculty members' research ranges from the basic understanding of the mechanisms of disease caused by a wide range of agents, including emerging and zoonotic pathogens, to the different protective and pathological responses to host organisms. We offer basic/ advanced training in diagnostic and clinical aspects of pathogens, disease control models and preventative measures as well as other public health concerned aspects.



To generate and disseminate significant knowledge of biomedical and veterinary sciences and offer exemplary education to contribute and to innovatively influence national development



To produce highly skilled graduates to ensure the human well-being and to combat challenges of food security through multidisciplinary scientific approaches

# DEPARTMENT OF PATHOBIOLOGY AND BIOMEDICAL SCIENCES



## DR. MUHAMMAD ASIF RAZA

Ph.D (Germany), Post Doc (Mexico), CaBEA (South Korea)

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🎓 Ph.D

💡 Epidemiology (molecular) of public health concerned pathogen, Drug development/ Ethno-Medicine, Parasitology



## DR. ASGHAR ABBAS

Assistant Professor

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🎓 Ph.D (UAF)

💡 Parasitology, Ethno-Medicine, Immunology



## MR. WAQAR ZAIB

Lecturer (Study Leave)

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🎓 M.Sc. (Hons.)

💡 Microbiology



## DR. HAFIZ M. ISHAQ

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💡 Microbiology



## MR. M. UMAIR WAQAS

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🎓 M.Phil.

💡 Public Health



## DR. KASHIF HUSSAIN

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💡 Parasitology



## DR. AHSAN ANJUM

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🎓 Ph.D

💡 Veterinary Pathology



## DR. AZIZ UL RAHMAN

Assistant Professor

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🎓 Ph.D

💡 :Microbiology



## DEPARTMENT OF ANIMAL & DAIRY SCIENCES

Programs Being Offered  
B.Sc. (Hons.)  
Animal Sciences

### Introduction

The aim of Department of Animal and Dairy Sciences is to provide the qualified, trained, and skilled manpower that reports the Malnutrition and Metabolic diseases of both dairy and fattening industries of southern Punjab.



To strive for sustainable animal production through advanced animal breeding techniques, livestock management, modernized feed technologies, and development of new diagnostics and treatments for nutritional diseases.



To produce skilled animal scientist, for improving the economic status of livestock farmers ultimately national GDP, trained in precision animal husbandry and breeding practices and applied animal feed and nutrition sciences.

# DEPARTMENT OF ANIMAL & DAIRY SCIENCES



**DR. JUNAID ALI KHAN**

Professor and Chairman

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 Ph.D, Postdoc

 Endocrine and metabolic physiology



**DR. BASEER AHMAD**

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 Ph.D

 Animal Nutrition



**MR. RANA M. SHAHBAKHT**

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 M.Phil

 Livestock management



**DR. SHAHID ALI**

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 Ph.D

 Microbiology



**MS.MOMINA MEHMOOD**

Lecturer

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 M.Phil

 Animal Physiology





## DEPARTMENT OF **CLINICAL SCIENCES**

**Programs Being Offered**

**Livestock  
Assistant Diploma  
(2 Years)**

**Livestock Assistant Diploma  
(3 years) (with the collaboration of China).**



### Introduction

The Department of Clinical Sciences is actively engaged in educational activities, research, and professional services for the general public. Clinical sciences encompass a broad range of animal species, both domesticated and wild, and a vast variety of diseases that may impact diverse species. We are aware of the possible difficulties and complications associated with animal health and work together with our clients and recommending vets to achieve effective results. The Clinical Sciences team at MNSUAM has a diverse spectrum of knowledge, interests, and clinical experience. Our staff is actively involved in clinical services, which include illness diagnosis, treatment, and complete counseling for clients and referring veterinarians on animal health problems, queries, and challenges. Additionally, faculty members guide students undergoing clinical training at the University Veterinary Hospital to treat clinical difficulties in sick animals. The department treats over 1000 clinical cases every year in and around Multan. Additionally, the department educates students on large and small animal reproductive, infertility issues, obstetrical techniques, and post-treatment care for animals. Students are also taught clinical and surgical judgment, and problem-based thinking abilities, all of which are necessary for the profession. The University Veterinary Hospital has been developed and coupled with an ambulatory service, to assist livestock producers at their farms. Additionally, the department has the capability of arranging trainings and seminars for veterinarians, paravets, farmers, and industry stakeholders.



To become the hub of knowledge, applied scientific research and community services in the field of veterinary clinical sciences by addressing the challenges of sustainable animal production.



- To provide competent professional with hands-on training in veterinary clinical sciences through excellence in education, research, outreach, and civic engagement programs in the fields of Veterinary Medicine, Surgery & Theriogenology
- To strengthen and advancement of animal health services in the region for decent livelihood of the community

# DEPARTMENT OF CLINICAL SCIENCES



**DR. MUHAMMAD ASIF RAZA**  
Chairman (Additional Charge)

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💡 Epidemiology (molecular) of public health concerned pathogen,  
Drug development/ Ethno-Medicine, Parasitology



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💡 Veterinary Clinical and Nanomedicine



**HAFEEZ UR REHMAN ALI KHERA**  
Assistant Professor

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💡 Clinical Medicine and Surgery, Livestock and Poultry Diseases



**MS. SAMAR Wafa KABEER**  
Lecturer

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💡 Animal Reproduction



**MR. RABNAWAZ KAUSAR**  
Subject Expert

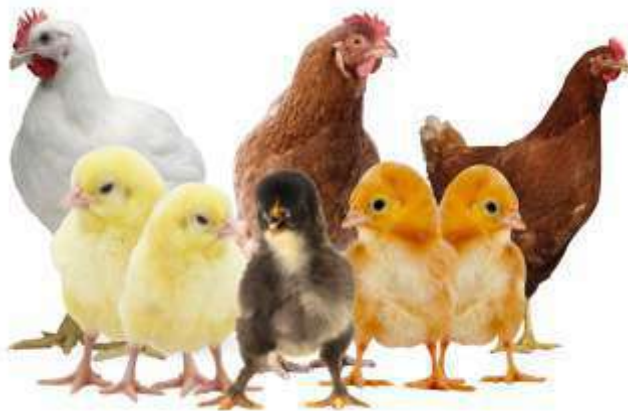
✉ rnkausar59@gmail.com      🎓 DVM  
💡 Livestock production



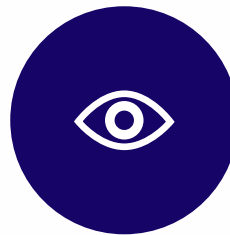
## DEPARTMENT OF POULTRY SCIENCE

Programs Being Offered

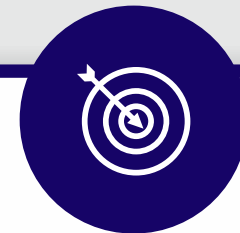
# B.Sc. (Hons.) Poultry Science



Ever growing Pakistan Poultry Industry needs skilled human resource. To cater this need, Department of Poultry Science was established in 2018 in the Faculty of Veterinary and Animal Science, MNS-UAM, Multan, which is focused on providing the qualified and trained manpower to smoothly address the issues at commercial farming level as well as initiating the problem-oriented research work to benefit the industry that can be devised through implementing effective strategies for enhancing poultry production and minimizing the constraints in poultry sector. The Department is facilitated with one undergraduate and one post graduate laboratory. The Department of Poultry Science is successfully running a B.Sc. (Hons.) and MS programs. The students of B.Sc. (Hons.) and MS Poultry Science will serve the Pakistan Poultry Industry in better way.



To combat the challenges of food security and nutritional deficiency through sustainable poultry production



- To produce professionals competitive in poultry husbandry practices, modern and rural farming systems, poultry nutrition and disease management.
- To provide students with advanced knowledge of precision poultry production in changing climate scenarios and training in entrepreneurial concepts for national development.

# DEPARTMENT OF POULTRY SCIENCE



**PROF. DR. JUNAID ALI KHAN**  
Chairman (Additional Charge)

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 Ph.D, Postdoc

 Endocrine and metabolic physiology



**DR. ATIF REHMAN**  
Assistant Professor

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 Ph.D

 Poultry Production, Poultry Nutrition



**MR. FASIAL RIAZ**  
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 M.Phil.

 Poultry Science



## DEPARTMENT OF Zoology, Wildlife and Fisheries

Programs Being Offered

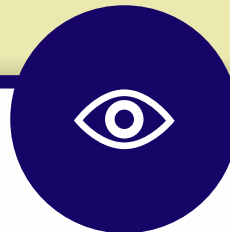
# BS Zoology



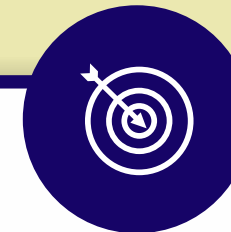
Zoology and Wildlife is among the significant economic sector in Pakistan, contributing in revenue generation, employment, poverty alleviation, and export revenues. Pakistan is gifted with large fishing resources. Fisheries sector has a significant contribution in the national economy, disbursing about one percent to GDP and providing jobs opportunities to about one percent of the country's man power. Likewise, aquaculture is the fastest developing section of the agriculture industry. Attached with new emerging skills of the day, it has become one of the most expanding and rapidly changing fields. The Department is carrying out teaching and research in both basic and applied aspects in different areas such as fresh water biology, shrimp farming, development of cost effective fish feed, fish breeding, aquaculture biotechnology, aquatic environment, fish disease management, use of bio-fertilizers in aquaculture, saline water fisheries.

Our programs prepare students to address and provide immediate solution to major problems and challenges faced by Fish Farmers in Pakistan. We conduct research that drives innovation and new technologies, expands understanding and provides science-based information to solve problems. After graduation, our students will be able to serve in Government institutes such as Fisheries Research Institute, Fish Hatcheries and Laboratories and Private sector, research, academia, industry and advisory.

Currently, we have completed research projects funded by Higher Education Commission (HEC), Pakistan. The construction of the new academic block and research laboratories has further strengthened our research and teaching activities. We are also organizing seminars, conferences and workshops to share thought provoking ideas.



To create significant knowledge and conduct innovative research to impart exemplary education to address the challenges of food security



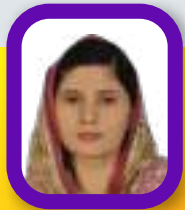
To produce competent graduates and visionary zoologists for the conservation of natural resources in the context of zero hunger goal

# DEPARTMENT OF ZOOLOGY, WILDLIFE AND FISHERIES



**DR. MUHAMMAD ASIF RAZA**  
Professor and Chairman

✉ [asif.raza@mnsuam.edu.pk](mailto:asif.raza@mnsuam.edu.pk)      🎓 Ph.D, Post Doc , CaBEA  
💡 Epidemiology (molecular) of public health concerned pathogen,  
Drug development/ Ethno-Medicine, Parasitology



**DR. NAHEED BANO**  
Assistant Professor

✉ [naheed.bano@mnsuam.edu.pk](mailto:naheed.bano@mnsuam.edu.pk)      🎓 Ph.D,  
💡 Freshwater fisheries, Fish farm management



**MS. AMINA IRFAN**  
Lecturer (Study Leave)

✉ [amina.irfan@mnuam.edu.pk](mailto:amina.irfan@mnuam.edu.pk)      🎓 M.Phil.  
💡 Zoology



## DEPARTMENT OF Biochemistry & Biotechnology

Programs Being Offered

**BS** Biochemistry  
**BS** Biotechnology

The department of Biotechnology and Biochemistry started its academic program in 2022. Efforts are underway to provide world top class teaching and research facilities in the disciplines of Biotechnology and Biochemistry. The undergraduate program of Biotechnology & Biochemistry is designed to meet the need of well-trained manpower and to provide comprehensive education and training in core areas of livestock/animal, industrial, environmental, health and medical disciplines. In addition to the hands-on practical sessions, students will be exposed to a progressive curriculum comprising of scientific principles and knowledge in molecular cloning, genome editing, cell tissue culture techniques, Bioinformatics analysis, Bioprocessing technologies, techniques and instrumentations in research and development, as well as business and entrepreneurship skills.



To achieve both academic and research excellence, promote innovative scientific research and community services, and attain leading role in technology development and promotion hub for industry and entrepreneurs.



- The Department aspires to equip students with excellent theoretical knowledge, practical skills and high-quality research-based education to produce quality students and leaders
- To discover, create, understand and apply new knowledge to strengthen the state, region and nation intellectually, technologically and economically.
- To provide future employment and empowerment for the people of southern Punjab in health, livestock/animal, environment, food, cosmetics, forensic, analytical research, medical, agriculture, pharmaceuticals diagnostics, quality control, biosafety and biosecurity sectors.

# DEPARTMENT OF BIOCHEMISTRY AND BIOTECHNOLOGY



**PROF. DR. JUNAID ALI KHAN**  
Chairman

 junaidali.khan@mnsuam.edu.pk

 Ph.D, Postdoc

 Endocrine and metabolic physiology



**DR. MUHAMMAD USMAN**  
Assistant Professor

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 Ph.D

 Nanobiotechnology and Biotechnology



**MR. HAMZA MUNIR**  
Lecturer

 hamza.munir@mnsuam.edu.pk

 M.Phil.

 Immunology, Cell Biology, Molecular Genetics



**MR. IDREES RAZA**  
Lecturer

 idrees.raza@mnsuam.edu.pk

 M.Phil.

 Cell Biology, Molecular Genetics





## DEPARTMENT OF Pharmacy

The Department of Pharmacy is a vibrant, multidisciplinary, highly collaborative, supportive and dynamic department. It is dedicated to excellence in training the next generation of scientists, leadership in making discoveries in basic and translational science for improvement of health and quality service to the public and scientific communities. Our department is highly committed to providing an outstanding training environment for students.



To develop and foster significant knowledge, advance research and offer excellent education to contribute to the economic development of nation.



- To carry out world-class scientific research and evidence-based teaching to expand our track record of innovation and excellence in both research and teaching.
- To teach and conduct internationally acclaimed, high quality research in pharmacology and physiology.
- To develop a diverse pool of outstanding scientists trained in modern principles of drug action and discovery to ensure the wellbeing and better human health through organized efforts and informed choices of society.

# DEPARTMENT OF PHARMACY



**DR. MUHAMMAD ASIF RAZA**  
Chairman

 asif.raza@mnsuam.edu.pk

 Ph.D, Post Doc , CaBEA

 Epidemiology (molecular) of public health concerned pathogen,  
Drug development/ Ethno-Medicine, Parasitology



**MR. IMRAN AHMAD KHAN**  
Lecturer

 imran.ahmad@mnsuam.edu.pk

 M.Phil

 Pharmacology, Drug Development Pharmaceutics



## Para-Veterinary School Jalalpur Pirwala

**BS** Zoology (4 Years)

**Livestock Assistant Diploma  
(LAD) 2-Years**

**Livestock Assistant Diploma  
(3 years) (with the collaboration of China).**

Para-Veterinary School (PVS) is established during the academic year 2021-2022, in animal-rich region of Jalalpur Pirwala with objective to provide technical veterinary education to the youth of the region and exploit the potential of livestock resources of the Southern Punjab. Veterinary Teaching Hospital at campus and Mobile Veterinary Service is offering hands-on training to the Livestock Assistant Diploma (LAD) students and services to the local community.



Our vision is to create and maintain academic and clinical programs in the field of veterinary sciences for the general benefit of local society and humanity.



Our focus is to build a diverse and inclusive community in South Punjab to improve the health of animal of South Punjab. This will be accomplished by disseminating new knowledge and skills to the youth of the region and providing innovative veterinary services in the region.



**DR. MUHAMMAD ASIF RAZA**  
Dean FVAS and Incharge



asif.raza@mnsuam.edu.pk



Ph.D, Post Doc , CaBEA



Epidemiology (molecular) of public health concerned pathogen,  
Drug development/ Ethno-Medicine, Parasitology



**MR. NASIR NIAZ**  
Lecturer



nasir.niaz@mnsuam.edu.pk



M.Phil



Animal Physiology



## Scheme of Studies

# BS

## Public Health

### SEMESTER-I

Course Code	Course Title	Credit Hours
GE-303	Functional English	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
RS-301	Rural Sociology and Development	2(2-0)
MICRO-303	Molecular Cell Biology	3(2-1)
PH-301	Sociology of Health and Disease	3(2-1)
BIOCHEM-301	General Biochemistry	3(2-1)
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-402	Entrepreneurship	2(2-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
PH-302	Principles of Psychology	3(2-1)
PH-304	Medical Anthropology	3(2-1)
PH-306	Personal Hygiene	3(2-1)
MAB-601	Agri-Business Management, Marketing and WTO	3(3-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>

### Semester-III

Course Code	Course Title	Credit Hours
GE-305	Quantitative Reasoning (I)	3(3-0)
GE-301	Social and Religious Tolerance	2(2-0)
PH-401	Applied Epidemiology	3(2-1)
PH-403	Population Dynamics	3(3-0)
PH-405	Primary Health Care	3(2-1)
PH-407	Concept of Health and Disease	3(2-1)
PH-409	General Parasitology	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### Semester-IV

Course Code	Course Title	Credit Hours
QR-402	Quantitative Reasoning (II)	3(3-0)
GE-404	Civics and Community Engagement	2(2-0)
PH-404	Basic Biostatistics	3(2-1)
PH-406	Health Promotion, Advocacy and Social Mobilization	3(2-1)
PH-408	Quality Management in Health Care	3(3-0)
MICRO-301	Fundamentals of Microbiology	2(1-1)
ENT-401	Insect Pests of Household, Human and Animals	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>



## Scheme of Studies

# BS

## Public Health

### Semester-V

Course Code	Course Title	Credit Hours
PH-501	Community Nutrition	3(2-1)
PH-503	Community Pediatrics	3(3-0)
PH-505	Fundamental Principles of Infectious Disease	3(2-1)
PH-507	Epidemiology of communicable Diseases	3(2-1)
PH-509	Non Communicable Disease Epidemiology	3(3-0)
PH-511	Food Safety	3(3-0)
<b>Total Credit Hours</b>		<b>18</b>

### Semester-VI

Course Code	Course Title	Credit Hours
PH-502	Reproductive Health	3(2-1)
PH-504	Environment and Occupational Health	3(2-1)
PH-506	Health Policy and Management	3(3-0)
PH-508	Health Planning	3(2-1)
PH-510	District Health Management	2(2-0)
PH-512	Health Professional Education	2(2-0)
PHYSIO-301	Introduction to Animal Physiology	3(2-1)
<b>Total Credit Hours</b>		<b>19</b>

### Semester-VII

Course Code	Course Title	Credit Hours
PH-601	Mental Health	3(2-1)
PH-603	Health Marketing	3(2-1)
PH-605	Preparation of Research Project and Scientific Writing	2(1-1)
MICRO-510	One Health	3(2-1)
MICRO-607	Biosafety and Risk Management	3(2-1)
PH-607	Health Economics	3(3-0)
AS-601	Remote Sensing and GIS Applications in Animal Sciences	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### Semester-VIII

Course Code	Course Title	Credit Hours
PH-610	Internship	3(0-3)
PH-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>



## Scheme of Studies

# BS

## Medical Laboratory Technology

### SEMESTER-I

Course Code	Course Title	Credit Hours
SES-301	Introduction to Environmental Science	3(2-1)
GE-303	Functional English	3(3-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
MICRO-301	Fundamentals of Microbiology	3(2-1)
MLT-301	Human Anatomy	3(2-1)
MLT-303	Human Histology	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-405	Quantitative Reasoning (II)	3(3-0)
BIOCHEM-305	Introductory Biochemistry	2(1-1)
MLT-302	Basic Human Physiology	3(2-1)
MLT-306	General Hematology	3(2-1)
MLT-308	Fundamentals of Medical Laboratory Technology	2(2-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>21</b>

### Semester-III

Course Code	Course Title	Credit Hours
GE-301	Social and Religious Tolerance	2(2-0)
RS-409	Rural Sociology and Development	2(2-0)
GE-402	Entrepreneurship	2(1-1)
MICRO-304	Basic Immunology	3(2-1)
MICRO-502	Medical Microbiology	3(2-1)
MLT-401	General Pharmacology and Chemotherapy	3(2-1)
MLT-405	General Pathology	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>



## Scheme of Studies

# BS

## Medical Laboratory Technology

### SEMESTER-IV

Course Code	Course Title	Credit Hours
GE-404	Civics and Community Engagement	2(1-1)
MICRO-607	Biosafety and Risk Management	3(2-1)
MLT-402	Systemic Pharmacology	3(2-1)
MLT-404	Clinical Genetics	3(2-1)
MLT-406	Histopathology and Histotechnology	3(1-2)
MLT-408	Clinical Laboratory Practice-I	3(0-3)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>17</b>

### SEMESTER-V

Course Code	Course Title	Credit Hours
MLT-501	Clinical Bacteriology	3(2-1)
MLT-503	Blood Disorder	3(2-1)
MLT-505	Clinical Pathology	3(1-2)
MLT-507	Clinical Parasitology	3(2-1)
MLT-509	Advances in Medical Laboratory Technology	3(1-2)
MLT-511	Clinical Laboratory Practice-II	3(0-3)
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER-VI

Course Code	Course Title	Credit Hours
MLT-502	Medical Laboratory Instrumentation	3(2-1)
MLT-506	Molecular Diagnostics	3(2-1)
MLT-508	Chemical and Forensic Pathology	3(2-1)
MLT-510	Cytology and Cytogenetics	3(2-1)
MLT-512	Clinical Virology and Mycology	3(2-1)
MLT-514	Clinical Laboratory Practice-III	3(0-3)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>18</b>

### Semester-VII

Course Code	Course Title	Credit Hours
MLT-601	Medical Laboratory Management Skills	3(2-1)
MLT-605	Blood Banking	3(2-1)
MLT-607	Bioethics	2(1-1)
MLT-609	Advance Diagnostic Imaging Techniques	3(2-1)
MLT-611	Preparation of Research Project and Scientific Writing	2(1-1)
MLT-615	Advanced Hematology	3(2-1)
MICRO-605	Diagnostic Microbiology	3(0-3)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER-VIII

Course Code	Course Title	Credit Hours
MLT-610	Internship	3(0-3)
MLT-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>



## Scheme of Studies

# BS Microbiology

### SEMESTER-I

Course Code	Course Title	Credit Hours
MICRO-301	Fundamentals of Microbiology	3(2-1)
MICRO-303	Molecular Cell Biology	3(2-1)
GE-309	Applications of Information and Communication Technologies	3(2-1)
BIOCHEM-301	General Biochemistry	3(2-1)
GE--303	Functional English	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners /Non-Muslims)	2(2-0)
GE-402	Entrepreneurship	2(2-0)
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
MICRO-302	Introduction to Mycology	2(1-1)
MICRO-304	Basic Immunology	3(2-1)
MICRO-306	General Virology	3(2-1)
MICRO-308	Basic Biotechnology	2(1-1)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
GE-403	Expository Writing	3(3-0)
ZOOL-302	Animal Biodiversity	2(1-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>17</b>

### SEMESTER- III

Course Code	Course Title	Credit Hours
MICRO-401	Introduction to Cell Culture	3(2-1)
MICRO-403	Bacterial Cell Physiology	3(2-1)
PATH-401	General Pathology	3(2-1)
BOT-401	Plant Diversity	3(2-1)
GE-301	Social and Religious Tolerance	2(2-0)
QR-401	Quantitative Reasoning (I)	3(3-0)
GE-409	Rural Sociology and Development	2(2-0)
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER -IV

Course Code	Course Title	Credit Hours
MICRO-402	Fundamentals of Microbial Genetics	3(2-1)
MICRO-404	Antimicrobial Resistance & Probiotics	2(1-1)
MICRO-406	Proteomics	2(1-1)
PATH-402	Clinical Pathology	3(1-2)
PARA-401	Clinical Parasitology	2(1-1)
MICRO-408	General Bacteriology	3(2-1)
GE-404	Civics and Community Engagement	2(2-0)
GE-305	Quantitative Reasoning (II)	3(3-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>20</b>





## Scheme of Studies

# BS Microbiology

### SEMESTER-V

Course Code	Course Title	Credit Hours
MICRO-501	Genetic Engineering & Biotechnology	3(2-1)
MICRO-503	Applied Immunology	3(2-1)
MICRO-505	Marine and Fresh Water Microbiology	3(2-1)
MICRO-507	Soil Microbiology	3(2-1)
MICRO-509	Food and Dairy Microbiology	3(2-1)
MICRO-511	Basic Bioinformatics	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER –VI

Course Code	Course Title	Credit Hours
MICRO-502	Medical Microbiology	2(1-1)
MICRO-504	Systematic Virology	3(2-1)
MICRO-506	Environmental Microbiology	3(2-1)
MICRO-508	Industrial Microbiology	3(2-1)
EPH-605	Epidemiology and Public Health	3(2-1)
MICRO-512	Quality Control in Biologics	2(1-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>16</b>

### Semester –VII

Course Code	Course Title	Credit Hours
MICRO-601	Pharmaceutical Microbiology	3(2-1)
MICRO-603	Introduction to Vaccinology	3(2-1)
MICRO-605	Diagnostic Microbiology	3(0-3)
MICRO-607	Biosafety and risk Management	3(2-1)
MICRO-609	Preparation of Research Project and Scientific Writing	2(1-1)
MICRO-602	Emerging Issues in Microbiology	2(2-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>16</b>

### SEMESTER –VIII

Course Code	Course Title	Credit Hours
MICRO-610	Internship	3(0-3)
MICRO-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>



## Scheme of Studies

# B.Sc (Hons.) Animal Sciences

### SEMESTER-I

Course Code	Course Title	Credit Hours
LM-301	Introduction to Livestock Management	3(2-1)
AN-301	Fundamentals of Animal Nutrition	2(1-1)
ABG-301	Principles of Animal Breeding	3(2-1)
ANAT-301	Introduction to Veterinary Anatomy	2(1-1)
GE-303	Functional English	3(3-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-402	Entrepreneurship	2(1-1)
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
LM-302	Principles of Dairy Production	3(2-1)
LM-303	Introduction to Animal Reproduction	3(2-1)
AN-302	Metabolism of Primary Nutrients	2(1-1)
PHYSIO-302	Introduction to Animal Physiology	2(1-1)
BIOCHEM-301	General Biochemistry	3(2-1)
GE-403	Expository Writing	3(3-0)
IDC-302	Ideology and Constitution of Pakistan	2(2-0)
IS-301/SSH-301	Islamic Studies/Ethics (for Non-Muslims)	2(2-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-III

Course Code	Course Title	Credit Hours
ABG-401	Introductory Population Genetics	3(2-1)
LM-401	Principles of Small Ruminant Production	2(1-1)
AN-403	Minerals and Vitamins in Nutrition	2(2-0)
AGRON-401	Fodders and Forages	2(1-1)
ZOOL-401	Fish and Fisheries of Pakistan	2(1-1)
ENT-401	Insect Pests of Household, Human and Animals	2(1-1)
GE-301	Social and Religious Tolerance	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
GE-409	Rural Sociology and Development	2(2-0)
<b>Total Credit Hours</b>		<b>20</b>



## Scheme of Studies

# B.Sc (Hons.) Animal Sciences

### SEMESTER-IV

Course Code	Course Title	Credit Hours
ABG-402	Introductory Molecular Genetics	3(2-1)
AN-402	Nutrient Requirements of Farm Animals	3(2-1)
LM-402	Animal House Design	3(2-1)
PS-401	Introduction to Poultry Science	2(1-1)
FRW-402	Agro-Forestry, Range and Wildlife Management	3(2-1)
GE-404	Civics and Community Engagement	2(1-1)
GE-405	Quantitative Reasoning (II)	3(3-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER-V

Course Code	Course Title	Credit Hours
ABG-501	Utilization and Conservation of Animal Genetic Resources	3(2-1)
LM-501	Range Livestock Production	3(2-1)
AN-501	Feeding of Farm Animals	3(2-1)
MICRO-510	One Health	3(2-1)
LM-503	Management of Dairy Animals	3(2-1)
AE-501	Human Resource Management	2(2-0)
<b>Total Credit Hours</b>		<b>17</b>

### SEMESTER-VI

Course Code	Course Title	Credit Hours
ABG-502	Selection for Economic Traits in Farm Animals	3(2-1)
LM-502	Camel Production	2(1-1)
AN-502	Principles of Poultry Nutrition	2(1-1)
PS-502	Poultry Feeding Practices	3(2-1)
LM-504	Equine Production	2(1-1)
AS-502	Livestock and Poultry Marketing Management	2(2-0)
PATH-502	Pathobiology	2(1-1)
LM-506	Record Keeping in Livestock	2(1-1)
LM-508	Lab and Zoo Animal Management	1(0-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>



## Scheme of Studies

# B.Sc (Hons.) Animal Sciences

### SEMESTER-VII

Course Code	Course Title	Credit Hours
ABG-601	Introduction to Animal Genomics	3(2-1)
LM-601	Principles of Meat Production	2(1-1)
LM-603	Behavior and Welfare of Farm Animals	2(1-1)
AN-601	Feed Evaluation, Formulation and Processing Technology	3(2-1)
PS-601	Poultry Hygiene and Disease Prevention	3(2-1)
AS-601	Remote Sensing and GIS Applications in Animal Sciences	2(1-1)
FMP-601	Fundamentals of Mechanized Farming	2(1-1)
AS-609	Preparation of Research Project and Scientific Writing	2(1-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>19</b>

### SEMESTER-VIII

Course Code	Course Title	Credit Hours
AS-610	Internship	3(0-3)
AS-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>



## Scheme of Studies

# B.Sc. (Hons.) Poultry Science

### SEMESTER-I

Course Code	Course Title	Credit Hours
PS-301	Introduction to Poultry Science	3(2-1)
AN-301	Fundamentals of Animal Nutrition	3(2-1)
ABG-301	Principles of Heredity	3(2-1)
GE-303	Functional English	3(3-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
GE-402	Entrepreneurship	2(2-0)
<b>Total Credit Hours</b>		<b>17</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
PS-302	Poultry Breeding Practices	2(1-1)
PS-304	Poultry Physiology	3(2-1)
Biochem-301	General Biochemistry	3(2-1)
AN-302	Metabolism of Primary Nutrients	3(2-1)
GE-403	Expository Writing	3(3-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
Zool-302	Animal Biodiversity	2(1-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER-III

Course Code	Course Title	Credit Hours
PS-401	Incubation Principles and Hatchery Management	3(2-1)
PS-403	Poultry Housing and Equipment	3(2-1)
AN-303	Mineral and Vitamin Metabolism	2(1-1)
GE-307	Islamic Studies/Ethics (for Non-Muslims)	2(2-0)
Micro-301	General Microbiology and Immunology	3(2-1)
RS-409	Rural Sociology and development	2(2-0)
GE-301	Social and Religious Tolerance	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
<b>Total Credit Hours</b>		<b>20</b>



## Scheme of Studies

# B.Sc. (Hons.) Poultry Science

### SEMESTER-IV

Course Code	Course Title	Credit Hours
PS-404	Poultry Feeding Practices	3(2-1)
PS-406	Broiler Production and Management	3(2-1)
PS-408	Poultry Meat Inspection	2(1-1)
AN-404	Feed Evaluation, Formulation and Processing Technology	3(2-1)
ABG-402	Introductory Population Genetics	2(1-1)
AEE-402	Communication Skills and Leadership Development	2(1-1)
GE-404	Civics and Community Engagement	2(2-0)
GE-405	Quantitative Reasoning (II)	3(3-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-V

Course Code	Course Title	Credit Hours
PS-501	Fancy Bird Production	3(2-1)
PS-503	Layer Production and Management	3(2-1)
PS-505	Poultry Farm Practices I	2(0-2)
ABG-501	Applied Poultry Breeding	3(2-1)
Path-505	Poultry Pathology	3(2-1)
FMP-507	Farm Equipment, Structure & Processing	3(2-1)
<b>Total Credit Hours</b>		<b>17</b>

### SEMESTER-VI

Course Code	Course Title	Credit Hours
ABG-602	Introductory Molecular Genetics	3(2-1)
PS-602	Production and Management of Breeder Flock	3(2-1)
PS-604	Rural Poultry Production	2(1-1)
PS-608	Farm Records and Data Analysis	2(1-1)
AN-602	Principles of Poultry Nutrition	3(2-1)
MAB-601	Agri-Business Management, Marketing and WTO	2(2-0)
EPH-606	Epidemiology and Public Health	3(2-1)
QS-302	Quranic studies	Audit
<b>Total Credit Hours</b>		<b>20</b>



## Scheme of Studies

# B.Sc. (Hons.) Poultry Science

### SEMESTER-VII

Course Code	Course Title	Credit Hours
PS-601	Poultry Products Technology	3(2-1)
PS-603	Poultry Marketing and Economics	3(2-1)
PS-605	Poultry Farm Practices	2(0-2)
PS-607	Poultry Farm Management & Biosecurity	2(1-1)
AN-603	Poultry Feed Industry	3(2-1)
PS-609	Preparation of Research Project and Scientific Writing	2(1-1)
Med-601	Poultry Medicine	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER-VIII

Course Code	Course Title	Credit Hours
PS-610	Internship	3(0-3)
PS-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>



## Scheme of Studies

# BS Zoology

### SEMESTER-I

Course Code	Course Title	Credit Hours
GE-303	Functional English	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
BOT-301	Diversity of Plants	3(2-1)
ZOOL-301	Principles of Animal Life-I	3(2-1)
<b>Total Credit Hours</b>		<b>14</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-402	Entrepreneurship	2(2-0)
BIOCHEM-301	General Biochemistry	3(2-1)
BOT-302	Plant systematics, anatomy and development	3(2-1)
ZOOL-302	Principles of Animal Life-II	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>14</b>

### SEMESTER-III

Course Code	Course Title	Credit Hours
GE-407	Ideology and Constitution of Pakistan	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
BOT-401	Plant physiology and ecology	3(2-1)
ZOOL-401	Animal Diversity: Invertebrates	3(2-1)
ZOOL-403	Zoo and Wildlife	3(3-0)
GE-301	Social and Religious Tolerance	2(2-0)
<b>Total Credit Hours</b>		<b>16</b>

### SEMESTER-IV

Course Code	Course Title	Credit Hours
ZOOL-402	Animal Diversity: Chordates	3(2-1)
ZOOL-404	Animal Form & Function-I	3(2-1)
ZOOL-406	Aquatic Biology	3(2-1)
ZOOL-410	Bioinformatics	3(1-2)
GE-405	Quantitative Reasoning (II)	3(3-0)
UAM-402	Civics and Community Engagement	2(2-0)
GE-409	Rural Sociology and Development	2(2-0)
QS-302	Quranic Studies Audit	Audit
<b>Total Credit Hours</b>		<b>19</b>





# Scheme of Studies

# BS

# Zoology

## SEMESTER-V

Course Code	Course Title	Credit Hours
ZOOL-501	Cell & Molecular Biology	3(2-1)
PBG-501	Principles of Genetics	3(2-1)
ZOOL-503	Physiology	3(2-1)
ZOOL-507	Animal Form & Function-II	3(2-1)
	Major (Elective)	3
	Major (Elective)	3
<b>Total Credit Hours</b>		<b>18</b>

### Major (Elective)

#### Fisheries and Aquaculture

Course Code	Course Title	Credit Hours
ZOOL-510	Aquaculture and Fisheries	3(2-1)
ZOOL-511	Fish and Fisheries of Pakistan	3(2-1)

#### Parasitology

Course Code	Course Title	Credit Hours
PARA-501	General Parasitology	3(2-1)
PARA-503	Protozoology	3(1-2)

#### Wildlife

Course Code	Course Title	Credit Hours
WDLF-501	Principles of Wildlife Management	3 (3-0)
WDLF -503	Biodiversity and Wildlife	3(2-1)

## SEMESTER-VI

Course Code	Course Title	Credit Hours
ZOOL-502	Evolution & Principles of Systematic	3(2-1)
ZOOL-504	Developmental Biology	3(2-1)
ZOOL-506	Animal Behavior	3(2-1)
ZOOL-508	Biodiversity	3(2-1)
QS-302	Quranic Studies	Audit
	Major (Elective)	3
	Major (Elective)	3
<b>Total Credit Hours</b>		<b>18</b>



## Scheme of Studies

# BS Zoology

### Major (Elective)

Course Code	Course Title	Credit Hours
ZOOL-602	Limnology	3(2-1)
ZOOL-604	Aquaculture Nutrition	3(2-1)

### Parasitology

Course Code	Course Title	Credit Hours
PARA-502	Helminthology	3(2-1)
PARA-504	Insect Pests of Household, Human and Animals	3(2-1)

### Wildlife

Course Code	Course Title	Credit Hours
WDLF-502	Biology of Birds and Mammals in Pakistan	3(2-1)
WDLF-504	Conservation Biology and Wildlife	3(2-1)

### SEMESTER-VII

Course Code	Course Title	Credit Hours
ZOOL-601	Environmental Biology	3(2-1)
ZOOL-603	Zoogeography & Paleontology	3(2-1)
ZOOL-605	Aquatic toxicology	3(2-1)
ZOOL-611	Preparation of Research Project and Scientific Writing	2(1-1)
QS-302	Quranic Studies	Audit
	Major (Elective)	3
	Major (Elective)	3
<b>Total Credit Hours</b>		<b>17</b>

### Majors (Elective)

### Fisheries and Aquaculture

Course Code	Course Title	Credit Hours
ZOOL-606	Sea Food Technology	3(2-1)
ZOOL-609	Ichthyology	3(2-1)

### Parasitology

Course Code	Course Title	Credit Hours
PARA-601	Epidemiology and Public Health	3(2-1)
PARA-603	Clinical Parasitology	3(2-1)

### Wildlife

Course Code	Course Title	Credit Hours
WDLF-601	Wildlife of Pakistan	3(2-1)
WDLF-603	Wildlife Diseases and Management	3(2-1)

### SEMESTER-VIII

Course Code	Course Title	Credit Hours
ZOOL-612	Internship	3(0-3)
ZOOL-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>



## Scheme of Studies

# BS Biochemistry

### SEMESTER- I

Course Code	Course Title	Credit Hours
GE-303	Functional English	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners / Non-Muslims)	2(2-0)
GE-309	Applications of Information and Communication Technologies	3(2-1)
BIOCHEM-301	Organic Chemistry	3(2-1)
BIOCHEM-307	Inorganic Chemistry	3(2-1)
BIOCHEM303	Human Physiology	2(2-0)
BIOCHEM-305	Introductory Biochemistry	2(1-1)
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER -II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-402	Entrepreneurship	2(2-0)
BIOCHEM-302	Carbohydrates & Lipids	3(2-1)
MATH-301	Elementary Mathematics	3(3-0)
PATH-302	General Pathology	3(2-1)
MICRO-505	Epidemiology and Public Health	3(2-1)
MICRO-510	One Health	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-III

Course Code	Course Title	Credit Hours
GE-407	Ideology and Constitution of Pakistan	2(2-0)
GE-305	Quantitative Reasoning (I)	3(3-0)
GE-301	Social and Religious Tolerance	2(2-0)
BIOCHEM-403	Proteins & Nucleic Acids	3(2-1)
BIOCHEM-405	Molecular Biology	3(3-0)
ENT-401	Insect Pests of Household, Human and Animals	2(1-1)
PARA-401	General Parasitology	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

### SEMESTER-IV

Course Code	Course Title	Credit Hours
GE-405	Quantitative Reasoning (II)	3(3-0)
GE-404	Civics and Community Engagement	2(2-0)
RS-409	Rural Sociology and Development	2(2-0)
BIOCHEM-404	Analytical chemistry	3(2-1)
BIOCHEM-406	Enzymology	3(2-1)
BIOCHEM-408	Biosafety & Bioethics	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>16</b>



## Scheme of Studies

# BS Biochemistry

### SEMESTER-V

Course Code	Course Title	Credit Hours
BIOCHEM-501	Metabolism I	2(2-0)
BIOCHEM-503	Nutritional Biochemistry	3(2-1)
BIOCHEM-505	Immunology	2(2-0)
BIOCHEM-507	Plant Biochemistry	3(3-0)
BIOCHEM-509	Biofertilizers and their Formulations	3(2-1)
BIOCHEM-511	Bioinsecticides and their Formulations	3(2-1)
<b>Total Credit Hours</b>		<b>16</b>

### SEMESTER-VI

Course Code	Course Title	Credit Hours
BIOCHEM-502	Metabolism II	2(2-0)
BIOCHEM-504	Industrial Biochemistry	3(2-1)
BIOCHEM-506	Biotechnology	2(2-0)
BIOCHEM-508	Bioinformatics	3(2-1)
BIOCHEM-510	Biochemical Techniques	2(1-1)
BIOCHEM-512	Bioenergetics	3(3-0)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>15</b>

### SEMESTER-VII

Course Code	Course Title	Credit Hours
BIOCHEM-601	Bio membranes & Cell Signaling	2(2-0)
BIOCHEM-603	Clinical Biochemistry	2(1-1)
BIOCHEM-605	Environmental Biochemistry	3(2-1)
BIOCHEM-607	Methods in Molecular Biology	3(2-1)
BIOCHEM-609	Current Trends in Biochemistry	3(3-0)
BIOCHEM-611	Preparation of Research Project And Scientific Writing	2(1-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>15</b>

### SEMESTER- VIII

Course Code	Course Title	Credit Hours
BIOCHEM- 610	Internship	3(0-3)
BIOCHEM-612	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>



## Scheme of Studies

# BS Biotechnology

### SEMESTER-I

Course Code	Course Title	Credit Hours
GE-303	Functional English	3(3-0)
GE-307	Islamic Studies OR Ethics (for Foreigners/Non Muslims)	2(2-0)
GE-309	Application of Information and Communication Technologies	3(2-1)
PBiotech-301	Introductory Genetics	3(2-1)
ABiotech-301	Cell Biology	3(2-1)
MLT-303	Human Histology	3(2-1)
MLT-302	Basic Human Physiology	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-II

Course Code	Course Title	Credit Hours
GE-403	Expository Writing	3(3-0)
GE-402	Entrepreneurship	2(2-0)
BIOCHEM-301	General Biochemistry	3(2-1)
MLT-401	General Pharmacology and Chemotherapy	3(2-1)
MLT-405	Fundamentals of Medical Lab Technology	3(3-0)
MLT-408	Clinical Lab Practice-I	3(0-3)
IBiotech-301	Molecular Biology	3(2-1)
QS-302	Quranic Studies	Audit
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-III

Course Code	Course Title	Credit Hours
Biotech-601	Agricultural Biotechnology	3(2-1)
Biotech-509	Introduction to Bioinformatics and Functional Genomics	3(2-1)
GE-305	Quantitative Reasoning (I)	3(3-0)
Biotech-503	Introduction to Biosafety	3(2-1)
Biotech-615	Industrial Biotechnology	2(1-1)
Biotech-617	Animal Biotechnology	2(1-1)
GE-301	Social and Religious Tolerance	2(2-0)
GE-407	Ideology and Constitution of Pakistan	2(2-0)
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-IV

Course Code	Course Title	Credit Hours
PBiotech-402	Recombinant DNA Technology	3(2-1)
HBiotech-402	Health Biotechnology	2(1-1)
ABiotech-404	Cell and Tissue Culture	3(2-1)
MLT-406	Histopathology and Histotechnology	3(2-1)
QS-302	Quranic Studies	Audit
GE-405	Quantitative Reasoning (II)	3(3-0)
GE-404	Civics and Community Engagement	2(2-0)
RS-409	Rural Sociology and Development	2(2-0)
<b>Total Credit Hours</b>		<b>18</b>



## Scheme of Studies

# BS Biotechnology

### SEMESTER-V

#### Animal Biotechnology

Course Code	Course Title	Credit Hours
Biotech-507	Modern Concepts in Biotechnology	3(2-1)
HBiotech-501	Molecular Pharming and Biopharmaceuticals	3(2-1)
PBiotech-505	Molecular Marker Technology	3(2-1)
HBiotech-503	Gene therapy and therapeutics	3(2-1)
Micro-301	Fundamental of Microbiology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
PBG-505	Cytogenetics	3(2-1)
HBiotech-505	Bio-imaging	2(1-1)
HBiotech-507	Biotechnology approaches to drug resistance	3(2-1)
ABiotech-501	Animal Neurotoxicology	2(1-1)
<b>Total Credit Hours</b>		<b>20</b>

#### Health/Medical Biotechnology

Course Code	Course Title	Credit Hours
Biotech-507	Modern Concepts in Biotechnology	3(2-1)
HBiotech-501	Molecular Pharming and Biopharmaceuticals	3(2-1)
PBiotech-505	Molecular Marker Technology	3(2-1)
HBiotech-503	Gene therapy and therapeutics	3(2-1)
Micro-301	Fundamental of Microbiology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
PBG-505	Cytogenetics	3(2-1)
HBiotech-505	Bio-imaging	2(1-1)
HBiotech-507	Biotechnology approaches to drug resistance	3(2-1)
HBiotech-509	Biological Fluid Mechanics	2(1-1)
<b>Total Credit Hours</b>		<b>20</b>

#### Plant Biotechnology

Course Code	Course Title	Credit Hours
Biotech-507	Modern Concepts in Biotechnology	3(2-1)
HBiotech-501	Molecular Pharming and Biopharmaceuticals	3(2-1)
PBiotech-505	Molecular Marker Technology	3(2-1)
PBG-505	Cytogenetics	3(2-1)
PBiotech-503	Molecular Ecology and Evolution	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
IBiotech-505	Principles of Biochemical Engineering	3(2-1)
HBiotech-505	Bio-imaging	2(1-1)
HBiotech-507	Biotechnology approaches to drug resistance	3(2-1)
Biotech-513	Biophysics and Computational Biology	2(2-0)
<b>Total Credit Hours</b>		<b>20</b>



## Scheme of Studies

# BS Biotechnology

### Industrial Biotechnology

Course Code	Course Title	Credit Hours
Biotech-507	Modern Concepts in Biotechnology	3(2-1)
HBiotech-501	Molecular Pharming and Biopharmaceuticals	3(2-1)
PBiotech-505	Molecular Marker Technology	3(2-1)
IBiotech-501	Microbial Biotechnology for Industrial Purposes	3(2-1)
IBiotech-503	Biochemistry and Enzymology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
IBiotech-505	Principles of Biochemical Engineering	3(2-1)
HBiotech-505	Bio-imaging	2(1-1)
HBiotech-507	Biotechnology approaches to drug resistance	3(2-1)
Biotech-513	Biophysics and Computational Biology	2(2-0)
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-VI

#### Animal Biotechnology

Course Code	Course Title	Credit Hours
Biotech-502	Genomics and Proteomics	3(3-0)
Micro-304	Basic Immunology	3(2-1)
ABiotech-502	Analytical Techniques in Biotechnology	3(2-1)
ABiotech-504	Molecular Diagnostics	3(2-1)
Biotech-510	Nanobiotechnology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
ABiotech-506	Animal Reproduction and Transgenesis	2(1-1)
HBiotech-506	Vaccine Production	3(2-1)
ABiotech-508	Animal Nutrition and Biochemistry	3(2-1)
ABiotech-510	Utilization and Conservation of Animal Genetic Resources	2(1-1)
<b>Total Credit Hours</b>		<b>20</b>

#### Health/Medical Biotechnology

Course Code	Course Title	Credit Hours
Biotech-502	Genomics and Proteomics	3(3-0)
Micro-304	Basic Immunology	3(2-1)
ABiotech-502	Analytical Techniques in Biotechnology	3(2-1)
ABiotech-504	Molecular Diagnostics	3(2-1)
Biotech-510	Nanobiotechnology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
HBiotech-502	Drug Discovery	2(1-1)
HBiotech-504	Vaccine Production	3(2-1)
Micro-502	Medical Microbiology	3(2-1)
HBiotech-506	Metabolic and auto-immune Disorder	2(1-1)
<b>Total Credit Hours</b>		<b>20</b>



## Scheme of Studies

# BS Biotechnology

### Plant Biotechnology

Course Code	Course Title	Credit Hours
Biotech-502	Genomics and Proteomics	3(3-0)
Biotech-504	Epigenetics	3(2-1)
ABiotech-502	Analytical Techniques in Biotechnology	3(2-1)
PBG-504	Modern Concepts in Plant Breeding	3(2-1)
Biotech-510	Nanobiotechnology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
HBiotech-502	Drug Discovery	2(1-1)
HBiotech-504	Vaccine Production	3(2-1)
PBG-518	IPR and Variety Development	2(1-1)
Biotech-508	Principles of Plant Molecular Physiology	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### Industrial Biotechnology

Course Code	Course Title	Credit Hours
Biotech-502	Genomics and Proteomics	3(3-0)
IBiotech-506	Biofuel and Biorefinery	3(2-1)
ABiotech-502	Analytical Techniques in Biotechnology	3(2-1)
IBiotech-504	Fermentation Technology	3(2-1)
Biotech-510	Nanobiotechnology	3(2-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
HBiotech-502	Drug Discovery	2(1-1)
HBiotech-504	Vaccine Production	3(2-1)
PBG-518	IPR and Variety Development	2(2-0)
Biotech-508	Principles of Plant Molecular Physiology	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

### SEMESTER-VII

#### Animal Biotechnology

Course Code	Course Title	Credit Hours
HBiotech-601	Stem Cell Biotechnology	3(2-1)
Micro-503	Applied Immunology	3(2-1)
ABiotech-601	Model Organisms for In vivo Studies	3(2-1)
Biotech-613	Biotechnology Entrepreneurship	3(2-1)
Biotech-611	Preparation of Research Project and Scientific Writing	2 (1-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
Micro-408	General Bacteriology	3(2-1)
Biotech-603	Genome Editing and its Applications	3 (2-1)
ABiotech-603	Animal Parasitology	2(1-1)
ABiotech-505	Animal Infectious Disease	2(1-1)
<b>Total Credit Hours</b>		<b>19</b>





## Scheme of Studies

# BS Biotechnology

### Health/Medical Biotechnology

Course Code	Course Title	Credit Hours
HBiotech-601	Stem Cell Biotechnology	3(2-1)
Micro-503	Applied Immunology	3(2-1)
ABiotech-601	Model Organisms for In vivo Studies	3(2-1)
Biotech-613	Biotechnology Entrepreneurship	3(2-1)
Biotech-611	Preparation of Research Project and Scientific Writing	2 (1-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
HBiotech-603	Regenerative Medicine	3(2-1)
Biotech-603	Genome Editing and its Applications	3 (2-1)
HBiotech-605	Human Molecular Genetics	2(1-1)
HBiotech-607	Cancer Biotechnology	2(1-1)
<b>Total Credit Hours</b>		<b>19</b>

### Plant Biotechnology

Course Code	Course Title	Credit Hours
Biotech-605	Fundamentals of Seed Molecular Biology	3 (2-1)
Biotech-603	Genome Editing and its Applications	3 (2-1)
PBG-607	Bioinformatics in Plant Breeding	3 (2-1)
Biotech-613	Biotechnology Entrepreneurship	3 (2-1)
Biotech-611	Preparation of Research Project and Scientific Writing	2 (1-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
FST-621	Food Biotechnology	3(2-1)
PBG-615	Genomics in Agriculture	2(1-1)
PBG-613	Biosafety Measures in GM Crops	2(1-1)
PBG-507	Germplasm Resource of Field Crops	3(3-0)
<b>Total Credit Hours</b>		<b>19</b>

### Industrial Biotechnology

Course Code	Course Title	Credit Hours
IBiotech-601	Industrial Bioprocessing	3(2-1)
IBiotech-631	Protein Engineering and Purification	3(3-1)
IBiotech-605	Bioelectronics and Biosensor	3(3-1)
Biotech-613	Biotechnology Entrepreneurship	3 (2-1)
Biotech-611	Preparation of Research Project and Scientific Writing	2 (1-1)
<b>Elective Courses-Students may opt for five credit hours from elective courses</b>		
ABiotech-601	Model Organisms for In vivo Studies	3(2-1)
FST-621	Food Biotechnology	3(2-1)
PBG-613	Biosafety Measures in GM Crops	2(1-1)
Biotech-615	Industrial Biotechnology	2(1-1)
<b>Total Credit Hours</b>		<b>19</b>



## Scheme of Studies

# BS Biotechnology

### SEMESTER-VIII

Course Code	Course Title	Credit Hours
HBiotech-612	Internship	3(0-3)
HBioech-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>

Course Code	Course Title	Credit Hours
ABiotech-612	Internship	3(0-3)
ABiotech-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>

Course Code	Course Title	Credit Hours
IBiotech-612	Internship	3(0-3)
IBiotech-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>

Course Code	Course Title	Credit Hours
PBiotech-612	Internship	3(0-3)
PBioech-614	Capstone Project	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>



# UNDERGRADUATE STATUTES AND REGULATIONS





## UNDERGRADUATE STATUTES AND REGULATIONS

# THE STATUTES AND REGULATIONS RELATING TO THE DEGREES AWARDED BY MUHAMMAD NAWAZ SHAREEF UNIVERSITY OF AGRICULTURE, MULTAN

## I. STATUTES

### 1. In these Statutes unless there is anything repugnant in the subject or context;

- (i) "Audit Course" means a course attended without any liability of taking its examination.
- (ii) "Credit Hour" means the successful completion of a course of one semester hour in theory or 2-3 semesters' hours in practical per week. One credit hour will be equal to 50 minutes student teacher contact per week for 16 weeks and for laboratory/practical work its duration will be 2-3 hours.
- (iii) "Deficiency Course" means a course in which a student has been adjudged deficient by a competent body of the University.
- (iv) "Non Credit Course" means a course of study, successful completion of which would not be a requirement for the degree.
- (v) "Semester" means teaching time of 19 weeks inclusive of admission, conduct of examination, preparation and declaration of results etc. and gazetted holidays.

### 2. Duration & Medium of the course

- (i) The minimum number of semesters for completing the course for the degrees of B.Sc. (Hons.) Agriculture, B.Sc. (Hons.) Environmental Science, B.Sc. (Hons.) Agricultural and Resource Economics, B.Sc. (Hons.) Human Nutrition and Dietetics, B.Sc. (Hons.) Home Economics, BBA-Agri. Business, BS Computer Science, BS Data Science, BS Information Technology, B.Sc. Agro-Industrial Engineering and Technology, B.Sc. (Hons.) Poultry Sciences, B.Sc. (Hons.) Animal Science, BS Microbiology, BS Biotechnology, BS Biochemistry, BS Medical Laboratory, BS Public Health and BS Zoology shall be eight.
- (ii) The medium of instructions and examinations shall be English except in the case of Islamic Studies, which shall be in Urdu.

### 3. Duration of Semester

- (i) There will be two semesters in each academic year, Winter and Spring of 19 weeks each. The commencement of the





# UNDERGRADUATE STATUTES AND REGULATIONS



semesters will be according to the academic calendar.

**Explanation:** Out of 19 weeks, 16 weeks shall be the actual teaching time, the rest may be utilized for admission, conduct of examinations, preparation and declaration of results etc.

- (ii) There will also be a summer session of 8 to 10 weeks duration as part of an academic year, and shall be optional. Students who wish to pass 'F' grade(s) and to improve 'D' grade(s) course(s) may enroll in summer session in the courses offered. It shall not count towards residential requirements.

#### 4. Scheme of Studies

The schemes of studies for various degree examinations shall be as given in the Appendices appended to the Statutes. This schedule may be amended from time to time.

#### 5. Minimum Requirements for various Degrees

The minimum credit requirement for instituting the various degrees shall be as follows. The limit of credit hours may be increased/decreased from time to time according to the requirements or as prescribed by HEC.

Sr. No.	Degree	Credit Hours
1.	B.Sc. (Hons.) Agriculture	141 credit hours for duration of 8 semesters
2.	B.Sc. (Hons.) Environmental Science	136 credit hours for duration of 8 semesters
3.	BBA Agribusiness	132 credit hours for duration of 8 semesters
4.	B.Sc. (Hons.) Agricultural and Resource Economics	138 credit hours for duration of 8 semesters
5.	BS Computer Science	133 credit hours for duration of 8 semesters
6.	BS Data Science	130 credit hours for duration of 8 semesters
7.	BS Information Technology	135 credit hours for duration of 8 semesters
8.	B.Sc. (Hons.) Home Economics	135 credit hours for duration of 8 semesters
9.	B.Sc. Agro-Industrial Engineering Technology	139 credit hours for duration of 8 semesters
10.	BS Poultry Science	131 credit hours for duration of 8 semesters
11.	B.Sc. (Hons.) Animal Science	134 credit hours for duration of 8 semesters
12.	BS Microbiology	131 credit hours for duration of 8 semesters
13.	BS Zoology	129 credit hours for duration of 8 semesters
14.	BS Biochemistry	131 credit hours for duration of 8 semesters
15.	BS Medical laboratory	132 credit hours for duration of 8 semesters
16.	BS Public Health	129 credit hours for duration of 8 semesters
17.	B.Sc. (Hons.) Human Nutrition and Dietetics	141 credit hours for duration of 8 semesters
18.	BS Biotechnology	133 credit hours for duration of 8 semesters



# UNDERGRADUATE STATUTES AND REGULATIONS



## II. REGULATIONS

### 1. ADMISSION REQUIREMENTS

#### i. Minimum Academic Requirements

The relevant qualification/requirements for various undergraduate degree programs are as under:

Sr. No.	Degree	Academic Qualification	Marks Requirements
1	B.Sc. (Hons.) Agriculture	Intermediate Science (Pre-Medical/ Pre-Engineering)/ Pre Agriculture DAS on reserved seats only	Minimum 50% of total mark
2	B.Sc. (Hons.) Environmental Science	Intermediate Science (Pre-Medical/ Pre-Engineering)/ or Equivalent qualification	
3	BBA Agribusiness	Intermediate	
4	B.Sc. (Hons.) Agricultural and Resource Economics	Intermediate Science (Pre-Medical/Pre-Engineering) or ICS with Economics or I.COM /A-Level	
5	BS Computer Science/BS Data Science /BS Information Technology	1. F.Sc. (Pre-Engineering/Pre-Medical)/ ICS/ A-level students (with Mathematics/Biology) 2. Minimum 50% marks in intermediate 3. DAE (specialized in electrical, mechanical, electronics and Telecommunication) (two (02) reserved seats only). <b>Note:</b> Students of F.Sc. (Pre -Medical)/ A-level students (with Biology) must have to take deficiency courses of Mathematics of 6 credit hours within one year of their regular studies.	
6	B.Sc. (Hons.) Home Economics	F.Sc. Pre-Medical/ Pre Engineering/ FA Home Economics/A-Level	
7	B.Sc. Agro-Industrial Engineering Technology	F.Sc. (Pre-Engineering, Pre-Medical, Pre-Agriculture)/ICS/A-Level/DAE (Three Years)	
8	BS Poultry Science	F.Sc. (Pre-medical) Candidates having F.Sc. Pre -Engineering with 50 % marks will be eligible subject to study deficiency course in Biology BIO-301, 3(2-1) (Essentials of Biology) Candidates having F.Sc. Pre -Agriculture with 50 % marks will be eligible subject to study deficiency course in Biology BIO-301, 3(2-1) (Essentials of Biology)	
9	B.Sc. (Hons.) Animal Science	A candidate must have passed F. Sc. (Pre-Medical) or standard equivalent examination with at least 50% marks from University or Boards with Physics, Chemistry, Biology. Candidates having F.Sc. Pre-engineering and FSC Pre-Agriculture degree are eligible for admission subject to qualify the deficiency course in Biology: Essentials of Biology BIO-301, 3(2-1).	
10	BS Microbiology	Intermediate science (Pre-medical) or Equivalent	
11	BS Zoology	F.Sc. (Pre -Medical) or Equivalent	
12	BS Biochemistry	F.Sc. (Pre -Medical) or Equivalent	
13	BS MLT	F.Sc. (Pre -Medical) or Equivalent	
14	BS Public Health	FA/F.Sc. (Pre-Medical) Pre-Engineering ) or Equivalent	
15	BS Biotechnology	F.Sc. (Pre -Medical) or Equivalent	
16	B.Sc. (Hons.) Human Nutrition and Dietetics	Intermediate science (Pre-medical), A-Level	



## UNDERGRADUATE STATUTES AND REGULATIONS

get employment after securing admission in the University shall submit written permission from their employer for joining the University as a student.

### vi. Other Admission Requirements

- a) The schedule of fees /dues payable by the candidates selected for the admission shall be as prescribed.
- b) The University Authorities shall have the discretion to refuse admission in any case without assigning any reason.  
All admissions secured by providing wrong information or concealment of relevant information or the admissions made in contravention of these Regulations shall be void/liable to be cancelled.
- c) Medical Certificate shall be submitted by selected candidates at the time of payment of dues by the Medical Officer (MO) appointed by the University.
- d) The selected Candidates shall present at the time of admission, the following documents in original and two sets of attested photocopies of these Certificates i.e. Academic Certificates, Hafiz-e-Quran Certificate, Undertaking and Medical Certificate.
- e) Lists of selected candidates will be displayed on the notice board/website of Muhammad Nawaz Shareef University of Agriculture Multan, Old Shujaabad Road Multan.

The Admission Committee of the MNSUA, Multan will entertain the appeals of the aggrieved persons regarding admission.

### 2. DEFICIENCY

If the schedule of courses pursued by a candidate does not provide adequate background for the 1<sup>st</sup> degree course which he/she intends to take up, he/she may be required to make up the deficiency by taking one or more additional course(s) of deficiency level as may be prescribed by the Admission and Prospectus Committee.

### 3. TIME FOR ADMISSION

The candidates may be admitted at the beginning of the Winter Semester of each academic year. They are required to deposit dues/complete other admission/enrolment formalities within the dates notified by the Admission and Prospectus Committee, failing which his/her admission shall stand cancelled automatically. Provided that the admission of such candidates may be allowed by the Vice-Chancellor subject to availability of seat and on the recommendations of the Admission and Prospectus Committee till such time as it does not conflict with the prescribed requirements of 75% attendance in lectures and practicals of each subject which will be counted from the notified date of commencement of classes for fresh entrants.





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Twenty Marks are added to the Academic marks in the H.S.S.C or equivalent Examination of the applicant who is Hafiz-e-Quran. The Candidates gets the benefit only if he/she has filled in the necessary column provided in the application form, and submitted the documentary proof of Hafiz-e- Quran. Moreover, Hafiz-e-Quran applying for admission will have to appear before a Committee constituted by the Vice Chancellor, MNSUA, Multan and get a Certificate from the Committee.

- a) Determination of merit in the case of equal percentage of admission marks: if two or more applicants have equal marks, they shall be treated at par and shall be admitted.
- b) The admission to B.Sc. (Hons.) Agriculture shall be made on the basis of common "Scheme of Studies" for first four semesters. On completion of four semesters, the candidates have a choice to opt any of the offered Major Subjects which will be exercised on the basis of their CGPA secured at the end of 4th semester, order of preference and availability of seats in the respective discipline.
- c) Both males and females are eligible to apply.

### ii. Age

A candidate must not be more than 23 years of age on the last date of admission forms submission, provided that after provisional selection, the Vice-Chancellor may relax upper age limit in very exceptional cases on the recommendations of Admission and Prospectus Committee.

### iii. Domicile

The candidate domiciles in other Provinces but passing Intermediate examination from the Board of Intermediate and Secondary Education of the Punjab may be considered for admission against Provincial quota of the respective Province.

### iv. Affidavit

Every candidate and his/her parent/guardian shall at the time of admission give an affidavit/undertaking on stamp paper, that candidate shall not indulge in politics and shall follow University Rules and Regulations, failing which candidate shall not be allowed admission/to continue his/her degree. In the event of violation of such an undertaking after admission, he/she shall be expelled from the University without Notice. The finding with regard to "indulgence in politics" given by the Head of the Institution under his seal and signature shall be final and shall not be questioned except only before the Supreme Court of Pakistan. (Added under decision of Supreme Court of Pakistan dated 01-07-1992 on a Human Rights cases Nos. 175,218/1992).

### v. Permission for In-service candidates

Candidates who are in the service of Government /Semi Government or Autonomous Organization at the time of admission or sec







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Explanation: Admission/Enrolment will only be considered completed when UG-I form is deposited to the Dean Office of respective Faculty. Only depositing of fee will not serve the purpose.

### 4. ENROLMENT

- (i) A candidate admitted to the course shall for so long as he/she has not completed all the requirements for the degree, enroll himself/herself for each semester subject to the maximum admissible limit of 12 semesters including terminal summer session, failing which his/her admission shall stand cancelled. In case a student discontinues a semester without permission, he/she may seek re-admission, in the same semester next year with the approval of the Vice Chancellor on the recommendations of the Admission and Prospectus Committee or in the subsequent year, provided that he/she has not already exhausted the maximum residential requirements for the course. In case a student does not avail both the admissible opportunities for seeking re-admission, he/she shall not be eligible for re-admission in future. Provided that after the first eight semesters, a candidate may enroll in the semester in which his/her failing/remaining subject(s) is/are offered in accordance with his/her "Scheme of Studies" subject to the maximum admissible limit of 12 semesters. Provided further that the semester meant for Internship as per approved scheme of studies shall be meant for Internship only.

#### Clarification of Regulation 4(I)

The four semesters provided in excess of the normal duration of the course have to be treated as exactly identical to the original minimum duration in matters of regulating the course conduct. This provision does not place any bar on the students' right to discontinue their studies during these extra four semesters. But what is inviolable in their case is their consecutive nature. One cannot skip a semester during this extra period and recover it beyond the maximum admissible semesters after it has ended. For instance, if a student discontinues studies in the 11th semester, and the course in question is not offered in the next 12th semester, he/she cannot claim a right to further enroll in the next (13th) semester, except that he/she avails himself/herself of the terminal summer session. He/she has come to the end of his/her studies. The law provides him/her no further chance. Provided further that the semester meant for Internship as per approved scheme of studies shall be meant for Internship only.

- (ii) An application for enrollment on the prescribed form (UG-I) accompanied by the prescribed fee paid receipt, shall be presented by regular students in Dean Office of respective Faculty on the days notified by University. The date for enrolment with normal late fee will also be announced by the University in the same notification. Provided that after the expiry of last date with normal late fee notified by the University, the Competent Authority (Dean/Director as the case may be) may permit a student for late enrollment on payment of prescribed double late fee (Fee within one week after expiry of single late fee notified). Provided further that the Vice-Chancellor may allow late enrolment to a student after the expiry of seven days period granted by the Competent Authority





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This permission will be granted under special circumstances in individual cases on the recommendations of the Prospectus and Admission Committee on the written request of a student on payment of double late fee till such time as it does not conflict with the prescribed requirement of 75% attendance in lectures and practicals of each subject which will be counted from the date of commencement of regular semester. After the expiry of prescribed period, permission for late enrollment shall not be granted in any case. In that eventuality, the concerned applicant will be treated as discontinued studies without permission of the Competent Authority and his/her request for continuation of studies, if received, may be dealt with in accordance with the provisions of relevant regulations.

### 5. MINIMUM AND MAXIMUM CREDIT HOURS

#### A. Regular Semester

- a) Each student shall register himself/herself in the first and second semesters for all the credit hours prescribed for these semesters. In subsequent semester(s), he/she shall have to register for courses maximum 20-23 credit hours for undergraduate programs.
- b) In two semesters falls before the semester meant for internship, a student may register himself/herself up to 27 credit hours for undergraduate degree programs. Provided further that the Dean of respective Faculty may allow to enroll extra credit hours on the written request submitted by a student well in time up to 30 credit hours subject to the condition that he/she will complete his/her degree after enrollment of extra credit hours.
- c) No course shall be offered during the regular semester which does not fall within the "Scheme of Studies" in the respective semester.

#### B. Summer Session

- a) The students who wish to pass 'F' and or to improve 'D' grade(s) may enroll during the summer session normally for not more than 12 credit hours.
- b) After 8th regular semester of four years degree programs, if a student has yet to qualify fail courses of more than 16 credit hours, he/she will enroll only up to the normal limit of 12 credit hours, which may include 'F' and 'D' grade courses. He/she will enroll the remaining course(s) in the forthcoming regular semester(s) or the summer session(s) following as per scheme of studies.
- c) In summer sessions following 8th, 10th and 12th regular semesters for the students of four years degree programs and a student may enroll fail course(s) only, upto 16 credit hours with the permission of the Competent Authority provided that he/she will complete her/his degree program after that session. In this situation, he/she will not be allowed to enroll any "D' grade course(s).



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- d) In summer session double classes will be held to compensate the normal study hours of a regular semester. The prescribed attendance requirements and relevant Regulations will strictly be adhered. Departmental Chairpersons will decide the teacher(s) for the summer session.

### 6. NUMBER OF COURSES

The courses will be numbered to a scheme such as B.Sc. (Hons.) Agriculture 1st and 2nd semester (301-302), 3<sup>rd</sup> and 4<sup>th</sup> (401-402) and so on. This number will be preceded by two to four letters indicating the field of study i.e. AGRON-301.

### 7. IMPROVEMENT OF 'D' GRADE

- (i) In any regular or summer session a student may repeat once those course(s) of the previous semester(s) in which he/she has secured the lowest grade i.e.'D' only within the prescribed limit of credit hours. However, after completion of courses prescribed under the 'Scheme of Studies', a student stands ineligible to enroll 'D' grade course(s) for improvement of CGPA even if she/he has not exhausted the maximum admissible limit of semesters.
- (ii) Any improved grades will substitute 'F' and 'D' grades of the previous semester for calculating CGPA but 'F' and 'D' grades will form part of the transcript.

### 8. EXAMINATION AND WEIGHTAGE

- (i) A mid-term examination will be held during 9th week of the semester which shall carry 30% of the total marks allocated for the course. This examination shall be conducted by the teachers concerned who shall determine the form of the examination.
- (ii) In addition, quizzes, special home assignments and/or term papers shall carry 10% of the total marks allocated which shall uniformly split over the whole semester. The final examination to be held at the end of the semester shall carry 60% of the total marks allocated.
- (iii) For the purpose of evaluation, one credit will carry 20 marks e.g. a 4 credit course will carry 80 marks. These marks will be divided in accordance with the credit assigned to Theory/Practical of each course.

### 9. UNIFORMITY/STANDARD IN TESTS

Examination Committee will examine all problems regarding uniformity/standards in tests, examinations, assignments etc. before the declaration of results for the semester, or any appeal from the student or teacher of any other related matter. The decision of the Committee shall be final. The students will be permitted to go through their answer books in the presence of teachers concerned within three days before the award list is sent to the Controller of Examinations.





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### 10. PRACTICAL EXAMINATION

The practical, each laboratory experiment, exercise, operation etc., shall be considered an examination and 40% marks shall be assigned for overall general performance and 60% for the final examination.

### 11. DECLARATION OF RESULT

- (i) The result of all the examinations shall be completed and delivered within 7 to 10 days of the date of examination under sealed cover to the Controller of Examinations at the end of each semester.
- (ii) One copy of the award of each subject shall be forwarded to the Faculty Dean and Departmental Chairperson under sealed cover.
- (iii) GPA/CGPA at the end of 1st, 2nd and subsequent Semesters: A student is required to secure minimum GPA 0.5 at the end of first and CGPA 0.75 after 2nd semester enabling him/her to continue studies, failing which he/she will cease to be on the rolls of the University. In 3rd or any subsequent semester(s), a student is required to secure a minimum CGPA of 1.00, so that he/she feels impelled to get the minimum CGPA of 2.20 required for qualifying for the award of the degree, failing which he/she would cease to be on the rolls of the University and shall not be re-admitted afresh in the University.
- (iv) Calculation of GPA/CGPA: GPA/CGPA will be calculated at the end of each semester in accordance with the relevant Regulations.

### 12. MINIMUM PASS MARKS

In order to complete a course successfully, a student is required to obtain at least 40% marks each in Theory and Practical separately.

### 13. INCOMPLETE GRADE

No makeup examination shall be given to a student who does not appear in Mid-term examination. In case a student is unable to appear in one or more courses in the Final Examination of semester on medical ground, he may be allowed to appear in the Special Final Examination to be arranged by the Department provided:

- a) He/She fulfills the conditions of having attended the prescribed number of lectures as laid down in the regulations.
- b) He/She is laid down as an indoor patient of a recognized Hospital, or if lie/she is not hospitalized as defiance above, the candidate shall be examined by the Medical Superintendent of Civil Hospital who may certify the inability of the student to appear in the examination or otherwise.
- c) Application of the student must reach the department on or before the day of Examination.
- d) Such a student shall be driven incomplete grade ('I' Grade). He shall be required to appear in the Special Final Examination to semester to be held within four weeks from the commencement of the next semester.
- e) He shall also be required to follow the schedule of the next semester.
- f) The student shall have to pay a fee of Rs. 1000/- per course for special final examination.





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### 14. GRADE POINT AVERAGE

- (I) Grade points will be as follows: 4 for A, 3 for B, 2 for C, 1 for D and Zero for F or failure. W for withdrawal and I for Incomplete may also be used. Maximum grade point average: 4.00, Minimum grade point average for obtaining a degree: 2.20

Grade	Value	Marks	Remarks
A	4	80 -100%	Excellent
B	3	65 -79%	Good
C	2	50 -64%	Satisfactory
D	1	40 -49%	Pass
F	0	Below 40%	Fail

- (i) The grade point will be worked on the basis of percentage of marks obtained by a student in each course separately according to conversion table and not on the percentage of total marks obtained by a student.

### 15. ATTENDANCE REQUIREMENTS

- (i) A candidate with less than 75% of the attendance in Theory and Practical of each course separately shall not be allowed to take the final examination of the course in a semester. Provided that the period of absence in the case of participation in co- curricular/sports activities with the permission of Competent Authority may not be counted.
- (ii) The teacher concerned shall send the attendance percentage to the Dean Office of the respective Faculty through the Chairman of the Department, prior one week to final exam for each course, theory and practicals separately on the prescribed form.
- (iii) If a student fails to fulfill minimum attendance requirement, will be treated as discontinued without prior permission of the competent authority and his/her request for continuation of studies, if received, may be dealt with in accordance with the provisions of relevant Regulations.

### 16. CONDUCT OF EXAMINATIONS

- (i) The final examination of each course (Theory and Practical) shall be held during the last week of a semester at a time and place notified by the Secretary Time-table Committee.
- (ii) All teachers teaching the various sections of a class will set their individual examination papers. The answer books will be marked by the respective teachers individually or collectively. The Coordinator Undergraduate Studies will arrange the supervision of the examination of the course, marking of the answer books and preparation of award lists.



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- (iii) If an enrolled student is unable to sit in the final examination due to illness or under the circumstances beyond his/her control to be determined in each case, may submit a written request to the Competent Authority prior to commencement of final examination of the respective semester. The application must be accompanied with a Medical Certificate issued by a Registered Medical Officer in case of illness. On receipt of request, notification for discontinuation will be issued by the Competent Authority. The student may however, continue his/her studies after enrollment in the same semester next year with the permission of Competent Authority or in the subsequent year but with the permission of the Competent Authority. In case a student does not avail both the admissible opportunities for seeking re-admission, he/she shall not be eligible for re-admission in future. Provided that the Competent Authority condone the above period in special circumstances to be recorded in writing.

### **17. MARKS/GRADE OF DEFICIENCY COURSE**

The marks/grade required to pass a deficiency course shall be the same as in the regulations relating to the examination/course concerned.

### **18. SCRIPT OF EXAMINATIONS**

The script of each examination may be shown to the students by the concerned teacher taken back immediately and then forwarded to the Controller of Examinations within three weeks, who shall preserve the scripts for a year. If a mistake or a discrepancy in the marking of the scripts of a serious nature comes to the notice of the Controller of Examinations, he shall take action to get it rectified in a suitable manner after obtaining proper orders from the Vice-Chancellor.

### **19. EXAMINATION FEES**

University examination fee shall be charged at the prescribed rates.





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# Disciplinary Rules and Regulations

### Short title, Commencement and Application

The rules and regulations to be implemented in MNS University of Agriculture, Multan (MNS-UAM) are to be addressed as MNS-UAM students (Discipline and conduct) regulations. These rules will be applicable to all the students of MNS-UAM. Any students violating these Regulations will be considered as an act of indiscipline and misconduct.

### A. Discipline

No students shall:

- (i) Utter, do, or propagate, anything repugnant to Islam within and outside the confines of the University
- (ii) Say or do anything which might adversely affect the honor and prestige of Pakistan, University teachers and his / her educational institution
- (iii) Smoking in University premises including classroom, laboratory, workshop, library, examination hall and University buses etc.
- (iv) Form, or associate with an organization/ society/ club, or any other body promoting caste distinction and inciting unsophisticated/ linguistic/regional feelings
- (v) Collect money or receive donations or pecuniary assistance privately or on behalf of the University or any University organization except with the written permission of the Competent Authority
- (vi) Stage, incite, or participate in a walkout, strike or any other form of agitation which might create or is likely to create law and order problem for the University and affect or is likely to affect its smooth functioning
- (vii) Indulge in immoral activities, use indecent/filthy language, insolence, wear immodest dress, make indecent remarks, jokes or gesture or behave in an improper manner within University premises
- (viii) Cause disturbance to others or threat his/her fellows and any University official/employ
- (ix) Quarrel, abuse, shout and fight within the bounds of University
- (x) Disturb peace and tranquility of the institution or use force to enter University
- (xi) Damage any kind of property of the University
- (xii) Keep or carry licensed or unlicensed weapons, narcotics, immoral or rebellious literature; and use in-salutary or abusive language or resort to violence against a fellow student or employee of the University
- (xiii) Disobeying the authority





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- (xiv) Use camera cellphone/digital camera for photography and recording (audio/video) in premises of campus unless permitted by the Competent Authority
- (xv) Giving false information/statement, willful suppression of information, cheating, deceiving, stealing, forgery etc.

### B. Disciplinary Actions and Penalties

Disciplinary action may be taken in one or more of the following forms depending upon the severity of the offence as per decision of Disciplinary Committee:

- (i) A student may be issued /imposed:
  - a) Warning letter
  - b) A fine of Rs.2000/- as a minor penalty
  - c) A fine of Rs.5000/- to Rs.10,000/- as major penalty

In case the student fails to deposit the imposed penalty/fine within due date he/she will not be allowed to attend his/her lectures and conditions will be applicable as notified in MNSUA/Acc-001/2014, dated: 07.08.2014.

**Explanation:** A total of three warning letters will be issued to the guilty and the final one will be sent through surface registered mail to his /her mailing address given in admission proforma. Upon failing the compliance of the letter, the concerned student will be rusticated from the rolls of University

- (ii) A student may be placed on probation for a fixed period not exceeding one academic year
- (iii) Withdrawal of financial concessions (installments, fee waivers, stipend etc.)
- (iv) Any loss or breakage of the University property will be recovered
- (v) If during the period of probation he/she fails to improve his/her conduct, he/she may be rusticated or expelled
- (vi) A student may be suspended from the rolls of a University for a period not exceeding two weeks at a time, excluding the suspension if any, not exceeding 10 days, at one time ordered by the competent authorities
- (vii) A student may be rusticated/ expelled, or asked to withdraw from the University in the manner hereinafter mentioned
- (viii) Debarring from seeking admission to higher studies at University for one academic year or forever

### c. Reclaiming of damage, breakage or loss of any University property

A student shall be responsible to recover the loss or damage caused by him to any property of the University not more than fifteen (15)







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days of the first notification by the Disciplinary Committee. If the student fails to do so, it will be considered an act against discipline and misconduct, within the meaning of Regulation A (xiii). As a consequence, the student will be struck off from the rolls of University for failure of making good the loss by him. Further, the Competent Authority may take legal proceedings against him in a Court of Law.

### D. Regulations Relating to Rustication, Expulsion and withdrawal

Rustication, whenever imposed on University student, shall always mean the loss of one academic year so far as his/her Examination is concerned. The period of absence from the University Teaching Department will, however, depend upon the time of the year when the penalty is imposed. The student under rustication may at the discretion of the competent authority of the University be permitted to rejoin the class in the same Department in the beginning of the next academic year. A rusticated student once re-admitted and again found creating disturbance/ indiscipline, etc. will be expelled from the University. A student committing a major act of indiscipline expelled from a University shall not be re-admitted. Further, the University shall not issue migration certificate to rusticated or expelled student.

### E. Code of Honor

The following Code of Honor expresses the basic principles of conduct expected to be followed by students:

- (i) All students must have faith in and respect for the ideology of Pakistan
- (ii) All students in matters of religion must respect the conviction of others
- (iii) Every student is expected to:
  - a) Be loyal to Pakistan
  - b) Obey the laws of the land order as well as the rules & regulation of the University
  - c) Maintain law and order as well as the dignity and prestige of the University
  - d) Protect the property of the University
  - e) Show due respect to elders, teachers and outside visitors
  - f) Work hard and co-operate in completing the courses of study within the prescribed period
  - g) No indulgence in sectarian activities

### F. Disciplinary Committee

A Disciplinary Committee of MNSUA, Multan, constituted by the Competent Authority shall investigate, deal with, hear and decide the cases of misconduct and indiscipline among the students on the rolls of the University in accordance with the aforementioned Rules and Regulations and amendments made from time to time as per need.





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### G. Appeal

- (i) The student(s) who has/have been rusticated /expelled by the Disciplinary Committee for violation of discipline may submit an appeal to the Vice Chancellor within 15 days of the date of notification of rustication/expulsion or withdrawal
- (ii) The Vice-Chancellor shall have the power to pass such orders as he may deem fit
- (iii) Case of indiscipline/disturbance from students of University shall be referred to the Disciplinary Committee





## UNDERGRADUATE STATUTES AND REGULATIONS

# Hostel Rules and Regulations

### Admission to MNS-UAM hostel

The residents shall abide by the following rules and regulations and other rules as may be framed from time to time by the Competent Authority.

1. The hostel accommodation will be provided to the bonafide students of the University, subjected to the availability of seats.
2. On allotment slip full particulars including recent photograph, permanent address with phone number and complete address of the student will be given.
3. Seats within the hostel are allotted by the Hostel Superintendent on the commencement of the semester on seniority/merit basis, which will be determined by the semester of the study taking into consideration GPA/CGPA and student's behavior during stay.
4. In making the allotment, the hostel authorities will also take into account the conduct and character of a boarder. Those, with penalties being imposed shall lose their seniority.
5. The allotment of such students whose hostel dues are in arrears shall be cancelled.
6. No boarder is allowed to change his/her seat without prior permission of the hostel authorities.
7. The Vice Chancellor and Hostel Warden may refuse admission or expel any student if he/she has any qualms about a student conduct or character.

### Hostel fee and subscription

1. Hostel fee and security deposits as determined by the University from time to time are payable by the student in each semester.
2. Hostel allotment of a student shall be cancelled, if, he/she fails to pay hostel dues. However, he/she may seek readmission in a hostel as admissible under rules.
3. Students staying for additional semester/summer session/thesis examination/ research work etc. will have to pay the hostel fee and subscription etc.
4. If any student leaves the hostel without paying hostel dues including mess, canteen and other charges, the amount outstanding against him/her along with a fine equal to 10% of the hostels dues will be recovered at the time of next enrolment.





## UNDERGRADUATE STATUTES AND REGULATIONS



5. In case such a student leaves hostel qualifying a degree, the outstanding amount along with a fine shall be recovered at the time of issuance of provisional certificate, degree etc., by the Controller of Examination.

### Mess rules

1. Hostel mess will be managed by the students and supervised by the Assistant Superintendent.
2. Nobody other than bonafide student will be allowed to become a mess member. Moreover members will elect their own mess manager / mess committee.
3. Mess manager/mess committee will be responsible for proper maintenance of mess and cleanliness of kitchen, utensils, dining hall and its surroundings.
4. Members will pay their dues to the mess manager on or before 7th of every month. Arrears of previous month must be cleared by 7th of the following month.
5. Meals will be served only in the Dining Hall and room service will not be provided.
6. A member intending to cancel a meal must inform the mess manager a day before, otherwise he/she will be charged for it.

### General rules

1. Furniture items such as charpai, table, chair and almirah assigned to a particular room shall not be shifted from that room. The residing students of that allotted room shall return these articles, when leaving the hostel. He/she will also be responsible for any loss or damage of these articles.
2. Students must treat the hostel staff politely. Misbehavior with the staff is strictly prohibited.
3. The hostel staff is not supposed to render any private service to any student. Complaints regarding misbehavior of the hostel staff will be reported to the relevant Assistant Superintendent/ Hostel Superintendent.
4. The telephone provided in a hostel is only meant for inter hostel contact/incoming calls only and no local or prank calls will be entertained through these telephones.
5. The students must make entry in the "In/Out Register" kept in hostel.
6. Resident is bound to make entries in the hostel leaving register and mess closure register before leaving for home.
7. The visitors (parents/guardians) are allowed to meet the resident only before the closing time of the hostel. (They should observe the summer and winter closing hours).
8. Every resident has to mark his/her attendance in the office and mess register, those missing at the time of attendance will be considered absent and if they keep on doing this, they may be expelled from the hostel.



## UNDERGRADUATE STATUTES AND REGULATIONS



- Day scholars are not allowed to stay in hostel. However, may visit and/ or stay with prior permission from the Hostel Assistant Superintendent/Superintendent along with subscribed charges.
- Security Officer of MNS- University of Agriculture Multan will be responsible for hostel security and public related matters.

### Visitors

- Visitor's rights to a hostel premises are reserved.
- Details about the authorized visitors to the hostel along with a photocopy of their CNIC should be submitted to the Hostel administration office at the time of admission to the hostel.
- Authorized visitors will visit only during visiting hours.
- Students are prohibited from giving shelter to any other student/outsider in the rooms. In case of breach, the student will be liable to disciplinary action.
- Parents/authorized guardians of a boarder may be allowed to stay for a night with prior permission of the Hostel Warden/Superintendent. However no male visitors are allowed to enter the female hostel in any case.
- Parents/authorized guardians of the female students are allowed to see the students in a specified visiting room during visiting hours.
- Boarders will observe the hostel opening and closing timings. Boarders who enter after closing time without any prior permission, following action will be taken against them:
  - Verbal warning will be communicated at first instance. In case of unceasingly violation of this rule, warning letter will be issued by the hostel administration.
  - Disciplinary action will be taken against boarder especially female boarder violating rules again and again.

### Discipline

All bonafide University students are governed by MNSUA Disciplinary and Conduct rule. However, the following additional rules have been framed to regulate day to day activities of boarders.

- Disciplinary action will be taken against habitual late comers.
- Roll will be called daily at 8:00 to 9:00 p.m.
- No gathering, meeting or group activities of unauthorized student bodies will be allowed within the premises of hostel.
- No religious/social ceremony likely to injure the sentiments of other boarders will be allowed in the hostel.
- Every part of the hostel premises shall freely be opened to the hostel authorities for inspection at any time.



## UNDERGRADUATE STATUTES AND REGULATIONS



6. No boarder shall indulge in any amusement which may disturb other boarders.
7. Other than electric lights and fans no electric appliances will be used in a hostel. However, air cooler and exhaust fans can be used after getting prior permission from the Superintendent/Hostel warden. But the boarder will have to pay prescribed amount for this purpose.
8. Before leaving the room, all electric articles must be switched off, even for a short while. Leaving the room with light or fan switched on is an offence punishable with fine.
9. It is the paramount duty of all the residents of the hostels to maintain cleanliness and healthy surroundings both in and outside their rooms and hostel premises.
10. Firearms and other weapons, liquor, intoxicants, hukka, cigarette or other prohibited/ objectionable article is not allowed to be kept or used in the hostel. An addict student will be expelled.
11. Spitting, smoking, defacing hostel premises will strictly be prohibited.
12. Boarders are required to observe necessary precautions for the safe custody of their belongings/valuables. The hostel administration will not be responsible for any loss of property.
13. All cases of sickness must be reported to the hostel authorities for necessary help and assistance to the student concerned.
14. The allotment of a student will be cancelled who remains absent for 30 days from the hostel without prior permission/intimation to the hostel authority. However, he/she may seek readmission as admissible under rules.
15. Breach of any rule of public morals, such as:
  - a. Use of indecent or filthy language in the premises of residential hall.
  - b. Use of immodest, improper and provocative dress.
  - c. Use of undesirable remarks or gestures.
  - d. Disorderly behavior such as fooling, shouting, abusing, quarrelling, fighting, insolence, indecency, profligacy and dishonesty.
  - e. Impersonation perjury, giving false information, willful suppression of information, cheating, deceiving and stealing etc;
  - f. Shouting of slogans derogatory to the prestige of the University or the reputation of its teachers and officers.
  - g. Use of intoxicants, immorality, failure to comply with a penalty imposed by a disciplinary authority.



## UNDERGRADUATE STATUTES AND REGULATIONS



- h. Misbehavior with a teacher or any other University official
16. The hostel authorities are responsible for maintaining discipline in the hostel and are authorized to admonish students for any irregularity or breach of discipline.
  17. The Assistant Superintendent may punish a student for breach of any discipline by way of a fine not exceeding to Rs. 500/-, Hostel Superintendent Rs. 1000/- and Associate Hostel Warden or Hostel Warden Rs. 5000/- in each case. Admonitions will be reported in writing to the University authorities for appropriate action.
  18. Boarders violating the above mentioned rules shall be fined, suspended, rusticated or expelled from the hostel. Any rusticated or expelled student will not be readmitted in any university hostel.



## UNDERGRADUATE STATUTES AND REGULATIONS

### Regulations Relating to Committee on Unfair Means

- a. The Unfair Means Committee shall be notified by the Vice Chancellor of the University for a period of two calendar years. There will be as many committees as the Vice Chancellor deem it. Each committee will comprise of two senior faculty members of the MNSUA and/or other universities. The Controller of Examinations will be ex-officio member and Chairman of each committee. The allocation of the case to a committee will be discretion of the Controller of Examinations.
- b. Committee on Unfair Means shall deal with the cases of the alleged use of unfair means in connection with the Examinations under all systems of examinations.
- c. The committee shall give the accused candidate a reasonable chance of showing cause against the charge leveled against him and afford him a fair opportunity of defense through written response to the charge sheet followed by the personal appearance.
- d. The unanimous decision of the Committee on Unfair Means in dealing with cases of the alleged use of unfair means in connection with the Examinations shall be final. If the Committee on Unfair Means is not unanimous, the matter shall be referred to the Vice Chancellor who shall either decide himself or refer it to the Disciplinary Committee of the University. The decision of the Vice Chancellor/ disciplinary committee shall be final.
- e. If a candidate to whom the decision of the competent authority is communicated has valid reasons to appeal against such decision, he/she may do so within 30 days of the date of receipt of the decision in writing and by depositing Rs. 1000/-. The appeal shall be referred to the Appeal Committee.
  - i. In line with the procedure adopted for Unfair Means Committee the Appeal Committee will be notified for a period of two calendar years and will comprise of Three Senior Faculty Members of MNSUA or other universities who are not part of any Unfair Means Committees of MNSUA.
  - ii. The appellant will be given an opportunity to be heard in person by the Appeal Committee. The decision of the Appeal Committee will be communicated to the appellant. Superintendent of the Examination Hall will register an Unfair Means Case against him/her.
  - iii. The appellant may file a revision against the decision of the Appeal Committee with the Vice Chancellor within 15 days after such decision by depositing a sum of Rs.2000/-. The Vice Chancellor may constitute a review committee and refer the case to it. The review committee will prepare its recommendations for the perusal of the Vice Chancellor who shall decide the case finally.
- f. The accused will appear before the all the committees in person and will not be allowed to be accompanied by anybody including lawyer, family member, friend, or any person.







## UNDERGRADUATE STATUTES AND REGULATIONS



- g. Notwithstanding anything to the contrary in these rules, no act or proceeding by the any of these committees to deal with case of alleged use of unfair means in connection with the examinations shall be invalidated merely by reason of the existence of a vacancy or vacancies on the committees; absence of a member; or, by reason of any question regarding the appointment or any member of the committees.
- h. The Unfair Means Case will be registered against a candidate if any of the following happens. The In Charge Examinations/ Superintendent of the Examination Hall will register an Unfair Means Case against him/her.
- i. He/she is found to have in his/her possession or accessible to him some material relating to the subject of Examination of that paper in any format (hand-written, printed, electronic etc.) or
  - ii. Is detected in giving or receiving assistance from any source (including fellow examinees, invigilating/ facilitating staff etc.), or
  - iii. He/she is using or attempting to use any other unfair means in connection with the Examination, or
  - iv. He/she is creating disturbance in the conduct of the examination, or
  - v. He/she is disobeying the supervisory staff
  - vi. A candidate is being impersonated by an impersonator
  - vii. The answer book is smuggled in to the examination hall or smuggled out of the examination hall.
- i. Any candidate detected in giving or receiving assistance, or found guilty of possessing and/or using any cheating material in any format, or allowing any other candidate to copy his/her answer-book, or using or attempting to use these or any other unfair means, shall be disqualified from passing in the subject.
- j. Notwithstanding any other law for the time being in force and without prejudice to any remedy open to the University under such law
- i. Any candidate found guilty of deliberate previous arrangements to cheat in the Examination such as smuggling in another answer-books, smuggling out his answer book, impersonation or misconduct of a serious nature and the person who gets himself/herself impersonated shall be disqualified for a period of not less than one and not more than two years and will be declared as not a fit and proper person to be admitted to any future Examination of the University within the period of disqualification. The university will deny issuance of NOC/ Migration certificate to enforce its decision. The impersonator, if he/she is on the rolls of the University, will be awarded the same punishment as the one who was getting impersonated. If the impersonator is not on the rolls of the University, the Controller of Examinations shall report the matter to the police and get an FIR registered against the impersonator with the permission of the Vice Chancellor. If the impersonator is convicted from the court of law then the case will be sent to the syndicate for possible quashment



## UNDERGRADUATE STATUTES AND REGULATIONS



of any degree/ medal/ honor given by the university to the impersonator.

- ii. The actual candidate or the impersonator may, on the expiry of two years including the Examination in connection with which he/she was declared to be not a fit and proper person to be admitted to any future Examination, may as a special case, be exempted by the Syndicate from further operation of this Regulation with the sanction of the Vice Chancellor.
- k. Any candidate using abusive or obscene language in the answer-book shall be disqualified from the Examination of that subject.
- l. Any candidate found guilty of making peculiar remarks in his/her answer book shall be disqualified in that subject.
- m. Candidates guilty of communicating or attempting to communicate, with examiners with the objective of influencing them in the award of their marks, shall be deemed to have used, or attempted to use, unfair means shall be punished accordingly. Communications of this nature addressed to the Controller of Examinations or other officers of the University, shall be treated as falling in the same category and the candidate concerned shall be punished appropriately by the unfair means committee
- n. Any candidate found in possession of fire arms or anything capable of being used as a weapon of offence in or around any Examination Hall, shall be liable to expulsion by the Officer and to disqualification ranging between one to three years.
- o. Possession of cell phone or any similar gadget, no matter if it is switched off, will be considered like having cheating material in possession and will be treated accordingly.



## Allocation of Seats for Undergraduate programs for Session-2023

## Distribution of Open and Reserved Seats for B.Sc. (Hons.) Agriculture for Session-2023

## Distribution of Reserved Seats for a person with disability in all Undergraduate Degree Programs for Session-2023

Sr. No.	Discipline	Number of Seats		
		Self-Finance	Existing	Approved
1	Livestock Assistant Diploma (LAD) Two Years		300	300
2	Livestock Assistant Diploma (LAD) Three Years		35	35
3	Garden Engineering Technology Diploma (GETD)		20	20
4	B.Sc. (Hons.) Agriculture		850	850
5	B.Sc. (Hons.) Environmental Science		50	50
6	B.Sc. (Hons.) Human Nutrition and Dietetics (MNSUA 40 + Nishtar 40)		40	40
7	B.Sc. (Hons.) Home Economics		60	60
8	BS Computer Science (BSCS)	10	200	200
9	BS Information Technology (BSIT)	10	200	200
10	BS Data Science (BSDS)	3	60	60
11	B.Sc. (Hons.) Agriculture and Resource Economics		50	50
12	BBA Agribusiness		200	100
13	B.Sc. Agro-Industrial Engineering Technology		40	40
14	B.Sc. (Hons.) Poultry Sciences		50	50
15	B.Sc. (Hons.) Animal Sciences		50	50
16	BS Microbiology		100	100
17	BS Zoology (Multan 100 + JPPW 40)		200	100
18	BS Biochemistry		100	100
19	BS Medical Laboratory Technology	30	150	150
20	BS Public Health		50	60
21	BS Biotechnology		60	60
22	BS Sociology		50	50
23	B.Sc. Agricultural Engineering		40	40
24	BS Food Science and Technology			100



# Academic Calendar 2024-25



## ACADEMIC CALENDAR 2023-24

<b>A</b>	<b>Enrollment Winter Semester 2024-2025</b>	<b>02-09-2024 to 06-09-2024</b>
1.	Commencement of Semester/Classes	02-09-2024
2.	Mid-Term Examination	04-11-2024
3.	Final Term Examination	06-01-2025
4	Termination of Semester (After completion of 20 weeks including examination)	17-01-2025
5	Break	18-01-2025 to 26-01-2025
<b>B</b>	<b>Enrollment Spring Semester 2025</b>	<b>27-01-2025 to 31-01-2025</b>
1.	Commencement of Semester/Classes	27-01-2025
2.	Mid-Term Examination	24-04-2025
3.	Final Term Examination	26-05-2025
4.	Termination of Semester (After completion of 20 weeks including examination)	13-06-2025
5	Break	14-06-2025 to 22-06-2025
<b>C</b>	<b>Enrollment Summer Semester 2025</b>	<b>23-06-2025 to 27-06-2025</b>
1.	Commencement of Semester/Classes	23-06-2025
2.	Mid-Term Examination	21-07-2025
3.	Final Term Examination	18-08-2025
4.	Termination of Semester (After completion of 09 weeks including examination)	22-08-2025
5	Break	23-08-2025 to 31-08-2025





# FEE STRUCTURE



## Fee Structure 2024-25\*

Sr. No.	Particulars	1st Semester	Subsequent Semesters
1	B.Sc. (Hons.) Agriculture	40,700	30,470
2	B.Sc. (Hons.) Poultry Sciences	40,700	30,470
3	B.Sc. (Hons.) Fisheries and Aquaculture	40,700	30,470
4	BBA Agri Business	40,700	30,470
5	BS Zoology	40,700	30,470
6	B.Sc. (Hons.) Home Economics	40,700	30,470
7	B.Sc. (Hons.) Environmental Sciences	40,700	30,470
8	B.Sc. (Hons.) Animal Sciences	40,700	30,470
9	B. Sc. (Hons.) Agricultural Resources Economics	40,700	30,470
10	B.Sc. (Hons.) Dairy Sciences	37,000	27,700
11	BS Bioinformatics	40,700	30,470
12	BS Sociology	37,000	27,700
13	BS Bio-Chemistry	40,700	30,470
14	BS Biotechnology	42,550	30,470
15	B.Sc. (Hons.) Remote Sensing and GIS	37,000	30,470
16	B.Sc. (Hons.) Microbiology	42,350	36,300
17	BS Medical Laboratory Technology	48,300	44,275
18	BS Public Health	52,250	44,275
19	B.Sc. Agro Industrial Engineering Technology	42,000	33,880
20	B.Sc. Agricultural Engineering	42,000	33,880
21	B.Sc. Food Engineering	42,000	30,800
22	BS Computer Science	52,800	42,350
23	BS Information Technology	52,800	42,350
24	BS Data Science	52,800	42,350
25	B.Sc. (Hons.) Human Nutrition and Dietetics	49,500	44,000
26	F.Sc. Pre-Agriculture	15,800	15,000
27	Hostel Fee	17,000	16,000
28	Hostel Fee (F.Sc. -Pre-Agriculture)	6,200	3,200
29	Hostel Fee Foreign Students (USD)	500	300

\* Subjected to Approval from Syndicate



# AFFIDAVIT

## AFFIDAVIT (UNDERTAKING)

A) I, Mr./Miss. \_\_\_\_\_ CNIC # \_\_\_\_\_  
son/daughter of Mr. \_\_\_\_\_ CNIC # \_\_\_\_\_ resident of \_\_\_\_\_  
do hereby declares on  
oath/solemn affirmation at \_\_\_\_\_ on \_\_\_\_\_ that I have been admitted  
provisionally in the Muhammad Nawaz Sharif University of Agriculture, Multan, in  
\_\_\_\_\_ (name of Certificate / Degree), will not indulge in  
'Politics' during my studies. In case on having been found indulging in 'politics', the finding/decision of the Vice  
Chancellor, University of Agriculture, Multan (Head of the institution) shall be final and not be questioned except only  
before the Supreme Court of Pakistan.

The contents of above affidavit are true to the best of my knowledge and belief and nothing has been concealed.

\_\_\_\_\_  
DEPONENT

B) I, Mr. \_\_\_\_\_ father/guardian of Mr. /Miss \_\_\_\_\_ do hereby  
declare at \_\_\_\_\_ on \_\_\_\_\_ on oath/solemn affirmation to the best of my  
knowledge and belief that whatever is declared above by my ..... son/daughter/deponent is  
true, and the findings / decision of the Vice Chancellor (Head of the Institution) regarding indulgence in 'Politics', of my  
son/daughter/deponent will be final and shall not be questioned except before the Supreme Court of Pakistan.

\_\_\_\_\_  
DEPONENT

Attested by:

Oath Commissioner/Gazetted Officer/  
Respective Nazim Union Council with  
Official Stamp

Name: \_\_\_\_\_

Designation: \_\_\_\_\_



# DECLARATION

[On Judicial Paper worth Rs.200/-]

(Specimen of declaration/undertaking to be submitted by provisionally selected candidates at the time of enrollment formalities)

## DECLARATION

I, Mr./Miss. \_\_\_\_\_ s/o, d/o \_\_\_\_\_ resident of \_\_\_\_\_ have been selected provisionally for admission to \_\_\_\_\_ (name of certificate/degree) at the Muhammad Nawaz Sharif University of Agriculture, Multan. Accordingly, I hereby declare on oath on solemnly affirm that:-

1. On admission to the privilege of being a student, I shall under take on oath and solemnly affirm to abide by the following:
  - 1.1 that during my stay in the University I shall diligently apply myself to acquire and develop the skills necessary for the practice and advancement of the field of study in which I am enrolled;
  - 1.2 I shall participate fully and whole heartedly in sports, games, extra-curricular activities as would be compatible with my physical traits and mental aptitude;
  - 1.3 I shall have minimum attendance of 75% in order to qualify for sitting in the examination;
  - 1.4 That I shall maintain identity as student of the university by wearing University ID Card and gown as may be prescribed by the University.
  - 1.5 That I shall never use violence or threat of violence or pressure, and in any dispute with other all means and methods shall only be logic, persuasion, petition, appeal ,revision, review and other legal and peaceful methods for the settlement of differences and disputes;
  - 1.6 In case of dispute, if any, with fellow students or teachers or employees of the University, I shall accept the judgment of the authorities constituted by the University for decision or settlement of the wrong doers;
  - 1.7 That I shall abide by all provision of the statutes, regulation and rules as may hereafter be framed by the appropriate authorities of the University. It is certified that the conditions and all the relevant regulations have been read and understand by us.
  - 1.8 I shall not carry with me any objectionable material in the examination hall and shall volunteer to be searched, if necessary before entering examination hall.



# DECLARATION

- 2 Further, I undertake on oath and solemnly affirmed to refrain from;
  - 2.1 doing anything which may cause injury and insult to Head of Institution ,teacher, officers and other staff of the Institution;
  - 2.2 holding a gathering, or meeting or taking out processions in any part of University Campus other than areas specified for the purpose;
  - 2.3 Indulge in any kind of unfair means, malpractice in examination and coercion by any means;
  - 2.4 allowing or abetting the entry to the premises of University of punished students, anti social elements or other groups presence of whom on the campus should cause conflict amongst the students;
  - 2.5 bringing into the campus, consuming or encouraging consumption of alcoholic products, drugs and narcotics, and indulging in acts of moral turpitude;
  - 2.6 bringing or keeping any type of weapons within the University premises;
  - 2.7 using or occupying any room or part of any building of the institution without lawful authority;
  - 2.8 misuse or damaging any University property, including, equipment's vehicles, etc. in any manner;
  - 2.9 all such acts and deeds as might bring dis-grace and bad name to the University;
- 3 breach of any above instructions is liable for disciplinary action according to the University rules.
- 4 I undertake that if I am found involved in any unlawful activity/providing incorrect information at any stage of study, violating the above he declaration or using bogus/fake/tempered educational certificate/any other document, the University shall have the right to cancel my admission without assigning any reason.
- 5 Further undertake that I was not involved in any indiscipline and misconduct case(s) during my stay at the institution last attended. In case it is proved anti at a later stage, the University shall have the right to cancel my admission without assigning any reason.

\_\_\_\_\_  
Signature of father/guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of the applicant

Please attach attested copies of CNIC/B form of applicant and father/guardian





# Fee Refund Policy



## Important Instructions

(1) If a candidate (fresh entrant) once admitted on merit, deposits the prescribed dues and enrolls himself/ herself by submitting or not submitting GS-10 Form and subsequently leaves the university under any circumstances, total dues except "admission fee" deposited by him/her shall be refunded as per percentage and time limit given below.

Dues Refund Policy	Time Limit
Full (100%) Refund of Entry fee and total dues/hostel dues deposited excluding admission fee	Upto 7 <sup>th</sup> day of commencement of classes
Half (50%) Refund of entry fee and total dues/hostel dues deposited Excluding admission	From 8 <sup>th</sup> –15 <sup>th</sup> day of commencement of classes
No (0%) Refund	From 16 <sup>th</sup> day of commencement of classes

(2) If a Regular student after depositing dues leaves the University at his/her own either submitting or without submitting GS-10 form, the normal dues/hostel dues and entry fee deposited by him/her shall not be refunded



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