

# PROSPECTUS UNDERGRADUATE PROGRAMS

2025-26



UNIVERSITY OF  
**AGRICULTURE**  
FAISALABAD- PAKISTAN



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# PROSPECTUS UNDERGRADUATE PROGRAMS

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2025-26

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<b>121</b>	<b>Scheme of Studies</b>	Seed Science & Technology, Microbiology, Agri. & Resource Economics, Animal Sciences
<b>122</b>	<b>Faculty of Agriculture</b>	<b>156</b> BS Forestry
<b>122</b>	BSc (Hons) Agriculture	<b>160</b> Bsc (Hons) Environmental Sciences
	Majors: Agronomy, Biotechnology, Entomology, Agri. Extension, Forestry & Range Management, Horticulture, Marketing & Agri, Business, Plant Breeding & Genetics, Plant Pathology, Soil Science,	<b>165</b> BS Biotechnology
		<b>169</b> <b>Faculty of Social Sciences</b>
		<b>169</b> BSc (Hons) Agricultural & Resource Economics

<b>175</b>	BS Economics	<b>297</b>	<b>Faculty of Sciences</b>
<b>179</b>	BS Sociology	<b>297</b>	BS Biochemistry
<b>184</b>	Bachelor of Business Administration	<b>303</b>	BS Botany
<b>190</b>	BS Commerce	<b>310</b>	BS Chemistry
<b>195</b>	BBA Agri. Business	<b>320</b>	BS Physics
<b>199</b>	B.Ed (Hons)	<b>327</b>	BS Zoology
<b>203</b>	Bachelor of Business Administration (BBA)	<b>333</b>	BS Computer Science
<b>208</b>	BS Criminology	<b>339</b>	BS Information Technology
<b>213</b>	BS Development Studies	<b>346</b>	BS Software Engineering
<b>217</b>	<b>Faculty of Agricultural Engineering &amp; Technology</b>	<b>353</b>	BS Bio-informatics
<b>217</b>	BSc Agricultural Engineering	<b>360</b>	BS Mathematics
<b>223</b>	BSc Environmental Engineering	<b>364</b>	BS Statistics
<b>229</b>	BSc Energy Systems Engineering	<b>368</b>	BS Artificial Intelligence
<b>236</b>	BSc Textile Engineering Technology	<b>375</b>	BS Data Science
<b>241</b>	BSc Food Engineering	<b>381</b>	BS Bio-statistics
<b>385</b>	BS Data Analytics		
<b>247</b>	<b>Faculty of Veterinary Sciences</b>	<b>389</b>	<b>Faculty of Arts &amp; Humanities</b>
<b>247</b>	Doctor of Veterinary Medicine (DVM)	<b>389</b>	Bachelor of Fine Arts (BFA)
<b>252</b>	BSc (Hons) Microbiology	<b>398</b>	BS English
<b>401</b>	BS Pakistan Studies		
<b>257</b>	<b>Faculty of Animal Husbandry</b>	<b>407</b>	General Instructions for Admission
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<b>265</b>	BS Poultry Science		
<b>269</b>	<b>Faculty of Health &amp; Pharmaceutical Sciences</b>		
<b>269</b>	Pharm-D		
<b>273</b>	<b>Faculty of Food, Nutrition &amp; Home Sciences</b>		
<b>273</b>	BSc (Hons) Home Economics		
<b>284</b>	BSc (Hons) Food Science & Technology		
<b>288</b>	BSc Human Nutrition & Dietetics		



The foundation stone of University of Agriculture, Faisalabad (UAF) was laid in 1906 with the name of Punjab Agricultural Collage and Research Institute, Lyallpur. It was upgraded as the West Pakistan Agricultural University, Lyallpur in 1961 and renamed as the University of Agriculture, Faisalabad since 1973. The UAF is currently offering 170 degree programs with more than twenty thousand students from diverse background with the facility to tailor the desired unique interdisciplinary programs of learning. The UAF is transforming the community through real impact of its programs of teaching, research, technology development and outreach activities which are essential for agricultural and rural development. The UAF trains manpower to become better citizens of the country.

## VISION

To lead the change through outstanding achievements in learning, discovery, innovation and community service with clear focus on programs of significance to agricultural and rural development

## MISSION

In order to make Pakistan a prosperous, food-secure and resilient nation, UAF aims at the following goals:

- To advance knowledge through basic and applied research
- To revamp human resource development by transforming the pedagogic process from teaching to learning
- To facilitate lifelong learning by providing agriculturally focused academic programs
- To promote agrarian reforms through research based agricultural policy
- To disseminate knowledge to the community through extension and outreach
- To promote sustainable farming and food systems, from production through consumption



## **UAF CORE ACADEMIC GOALS**

UAF offers an array of academic and professional programs focusing agricultural and allied sciences. However, UAF aspires the following core learning goals for all graduates.

### **Learning**

- To acquire a comprehensive knowledge of their subject area, discipline or profession
- To understand how their subject area may interact with related disciplines
- To utilize and apply their knowledge with skill judgment and prudence

### **Discovery**

- To apply logical, critical and creative thinking to problems, including analysis, synthesis and evaluation
- To be adept to think, conceive and excel independently, experientially, and in teams
- To possess intellectual flexibility, ability to manage chance, and a zest for life long scientific endeavors
- To engage in translational research to find indigenous solutions and get international recognition

### **Integrity**

- To exercise intellectual integrity and ethical behavior
- To recognize and think through moral and ethical issues in a variety of contexts
- To recognize the limits to their knowledge and act accordingly

### **Skills**

- To communicate clearly, substantively, and persuasively
- To be able to locate and use information effectively, ethically, and legally
- To be technologically literate, and able to apply appropriate skills of research and inquiry for solutions

### **Service**

- To contribute to society, locally, nationally, and globally
- To bring the highest standards of leadership, governance, academic autonomy, integrity and lucidity
- To share knowledge and exercise leadership for community building
- To develop effective outreach mechanisms for dissemination of knowledge and technology transfer
- To pledge the fidelity of staff and students to the institution and the region

## Introduction

Pakistan was born a predominantly agricultural country commanded by a peerless canal irrigation system designed and created as an Engineering marvel, with a sweep covering the country's sprawling plains. In spite of a degree of industrialization achieved ever since, agriculture remains central to its economy. It is, therefore, axiomatic that all approaches to economic activity and social advancement be designed with agriculture as the centerpiece of our development policy initiatives and evolving progress and prosperity, in consequence.

Like most developing countries, Pakistani society has been bound to tradition – a poor elixir for progress and wellbeing of the people hardly an effective recipe to win our spurs and stand on our own feet and be counted. The whole crux of future development should be to trigger a change – in attitudes, behavior and values of life. To accelerate the break with tradition, therefore, it required a well-conceived action plan to update and upgrade agricultural education and research in the country.

The first major institution of higher learning in agriculture created was the Punjab Agricultural College and Research Institute in 1909. It had served for major part of the century as its premier seat of learning and training in tropical agriculture, helped through creation and transmission of appropriate knowledge, to promote agrarian development in the country. Of course, this was a beginning to project a great movement forward to embrace a new way of life.

After independence the Government of Pakistan appointed National Commissions on Food and Education with the terms of reference to review, in all its ramifications, the prevailing agrarian system and to formulate measures for developing the full potential of our agricultural resources. The Commissions made a strong case for establishing an Agricultural University, which could play a more vigorous role in promoting research and education in Agriculture. Pursuant to these recommendations, the University of Agriculture was established by upgrading the former Punjab Agricultural College and Research Institute in the year 1961-62. The



University is organized into faculties/Institutes/Directorates of:-

- 1 Agriculture
- 2 Social Sciences
- 3 Agricultural Engineering and Technology
- 4 Animal Husbandry
- 5 Veterinary Science
- 6 Sciences
- 7 Home Sciences
- 8 Agricultural & Resource Economics
- 9 Horticultural Sciences
- 10 Soil & Environmental Sciences
- 11 Animal and Dairy Sciences
- 12 Agricultural Extension and Rural Development
- 13 Business Management Sciences
- 14 National Institute of Food Science & Technology
- 15 Microbiology
- 16 Pharmacy
- 17 Punjab Bioenergy
- 18 Centre for of Agricultural Biochemistry and Biotechnology(CABB)
- 19 Water Management Research Center

All located at the main Campus Faisalabad, Constituent College Toba Tek Singh, Constituent College Burewala-Vehari and Constituent College Depalpur-Okara. These academic units offer a variety of study programs leading to B.Sc.(Hons.) Agriculture, B.Sc.(Hons.) Agricultural & Resource Economics, B.Sc.(Hons.) Food Science & Technology, B.Sc.(Hons.) Microbiology, B.Sc.(Hons.) Environmental Science, Doctor of Veterinary Medicine, Doctor of Pharmacy, B.Sc. Agricultural Engineering, B.Sc. Food Engineering, B.Sc. Textile

Technology, B.Sc. Energy Systems Engineering, B.Sc. Environmental Engineering, B.Sc.(Hons.) Home Economics, B.Sc.(Hons.) Human Nutrition and Dietetics, BS(Computer Science), BS(Software Engineering), BS(Information Technology), BS(Bio-Informatics), **BS Artificial Intelligence**, **BS Data Science**, BS(Animal Sciences), BS(Dairy Science), BS(Poultry Science), BS(Chemistry), BS(Biochemistry), BS(Zoology), BS(Botany), BS(Physics), **BS (Forestry)**, **BS (Commerce)**, **BS (Education)**, **BS(Mathematics)**, **BS(English)**, **BS(Economics)**, **BS(Sociology)**, **BS(Statistics)**, **Bachelor of Fine Arts**, Bachelor of Business Administration, Bachelor of Business Administration(Agribusiness), B.Ed., M.Phil and Ph.D. degrees in various disciplines of Agriculture and allied fields.

Wide ranging progress has been made in the various sectors of agriculture. Recent years' in particular, have been great strides being taken in certain areas and new ground broken in others, with the primary object to keep in pace with contemporary world, enthusiastically engaged, as if with religious fervor in a fast track infusion of science and technology in the modernization of agricultural theory and practice and the quality of life therewith. In order therefore, to draw upon rural areas for induction of nursery material to run newly devised undergraduate programs, the University has launched a two-year Intermediate(Pre-Agriculture) certificate course after Matriculation(Science) as a six year-degree course parallel to standard four years degree programs.

## The City of Faisalabad

The city of Faisalabad is the proud home of the Agricultural University. The city whose population now is risen to over 7.875 million well on a way to become a booming metropolis, has an international air terminal and is also connected by rail and road to all the major cities of the country. Faisalabad is situated in a rich agricultural region called the granary of the Punjab as the soil is good and weather suitable for diversified agricultural purposes. The city teems with textile factories and is popularly known as the "Manchester of Pakistan"; it richly deserves the epithet. The city has (originally named

Lyallpur after the name of its British founder) has a unique geometrical setting, with a Clock Tower at the centre, and eight shopping centers branching out in different directions, with the entire commercial life of the city throbbing in this area. The months of May and June are hot while July and August are hot and humid when the monsoon set in. All the educational institutions close down for the summer spell from the middle of June to the end of August. The winter is moderate. The overall environment is congenial for a tranquil living.



## The Main Campus

The lush green University Campus, with its luxuriant lawns and shady trees, is a mosaic of old and new architecture. Situated on the periphery of the Civil Lines, and spread over an area of 2,550 acres, majestic and sprawling – the Old Campus is reminiscent of traditional Muslim architecture. Its arches and domes add to the solemnity and grace of the academic atmosphere of the University. The Faculty of Sciences is housed in the former building of Punjab Agricultural College as well as newly constructed Science block adjacent to Fish Farm.

The new Campus is a conglomeration of monolithic blocks built in the modern style. Its master plan is hinged on a spinal corridor running from one end to the other, built as a continuous, colonnaded, pedestrian walkway, opening out at

regular intervals into green spaces. On each side of this walkway are the lecture rooms and laboratories of different departments of the University.

The main administration block, housing the offices of the Vice Chancellor, the Registrar, the Treasurer, and the Controller of Examinations is a three storey building located in the quadrangle, studded with rose beds and exotic trees which separates the administration block from the main Library, considered to be a pride of this University. It is beautifully designed, centrally air – conditioned, two storied super structure which offers a vast collection of books and a hushed atmosphere to study. A student – teacher centre, a cafeteria and some more offices infringe this quadrangle.

Close by stands the grand Iqbal Auditorium, facing a sunken





garden, which enhances its beauty and stature. This newly constructed structure has assumed the significance of a landmark. It is the locale for all kinds of mass ceremonies and collective activity in this University and for the city of Faisalabad. A spacious mosque in the modern style, a medical centre, a row of halls of residence for the students, a Directorate of sports, with a fully equipped gymnasium, for the physical training of the students, Laboratories and Clinics for Animal Reproduction and general health and care of animals, all lie in the precincts of the New Campus.

Technology dissemination is pre-requisite for enhancing productivity of various agricultural commodities by the

farmers. The University of Agriculture Faisalabad is an attractive place for visitors and scientists participating in seminars and workshops. In order to meet the said requirements and to act as incubator of scientific knowledge a double story expo center equipped with all necessary modern facilities was established at the campus adjacent to new Rest house and newly constructed office of the Pro-Vice Chancellor. The center is providing awareness about developed, tested innovative and cost-effective technologies to visiting farmers, industrialist, students of other institutions and other related stockholders.

# Academic Structure of UAF

## Faculty of Agriculture

(CABB)

1. Centre of Agricultural Biochemistry and Biotechnology
2. Department of Agronomy
3. Department of Entomology
4. Department of Forestry and Range Management
5. Department of Plant Breeding and Genetics
6. Department of Plant Pathology
7. Institute of Horticultural Sciences
8. Institute of Soil and Environmental Sciences

## Faculty of Agricultural Engineering & Technology

1. Department of Energy System Engineering.
2. Department of Farm Machinery and Power
3. Department of Fiber and Textile Technology
4. Department of Food Engineering
5. Department of Irrigation and Drainage
6. Department of Structures and Environmental Engineering
7. Water Management Research Centre (WMRC)

## Faculty of Food, Nutrition & Home Sciences

1. National Institute of Food Science and Technology
2. Institute of Home Sciences

## Faculty of Animal Husbandry

1. Institute of Animal and Dairy Sciences

## Faculty of Veterinary Science

1. Department of Anatomy
2. Department of Clinical Medicine and Surgery
3. Department of Pathology
4. Department of Parasitology
5. Department of Theriogenology
6. Institute of Microbiology
7. Institute of Physiology and Pharmacology

## Faculty of Social Sciences

1. Department of Rural Sociology
2. Institute of Agricultural and Resource Economics
3. Institute of Agricultural Extension, Education and Rural

## Faculty of Sciences

1. Department of Biochemistry
2. Department of Botany
3. Department of Computer Science
4. Department of Chemistry
5. Department of Mathematics and Statistics
6. Department of Physics
7. Department of Zoology, Wildlife and Fisheries

## Faculty of Arts & Humanities

1. Department of Art & Design
2. Department of English & Linguistics
3. Department of Islamic Studies
4. Department of Pakistan Studies / History / Anthropology / Psychology
5. Waris Shah Chair

## Faculty of Health & Pharmaceutical Sciences

1. Department of Epidemiology & Public Health
2. Department of Medicinal Plants and Nutraceuticals
3. Department of Pharmacy
4. Medical Health and Neurocognitive Centre

## UAF Community College

## UAF Constituent Colleges

Burewala Campus  
Depalpur-Okara Campus  
Toba Tek Singh Campus

## Professional Training and Skill Development Center (PTSDC)

## International Centers

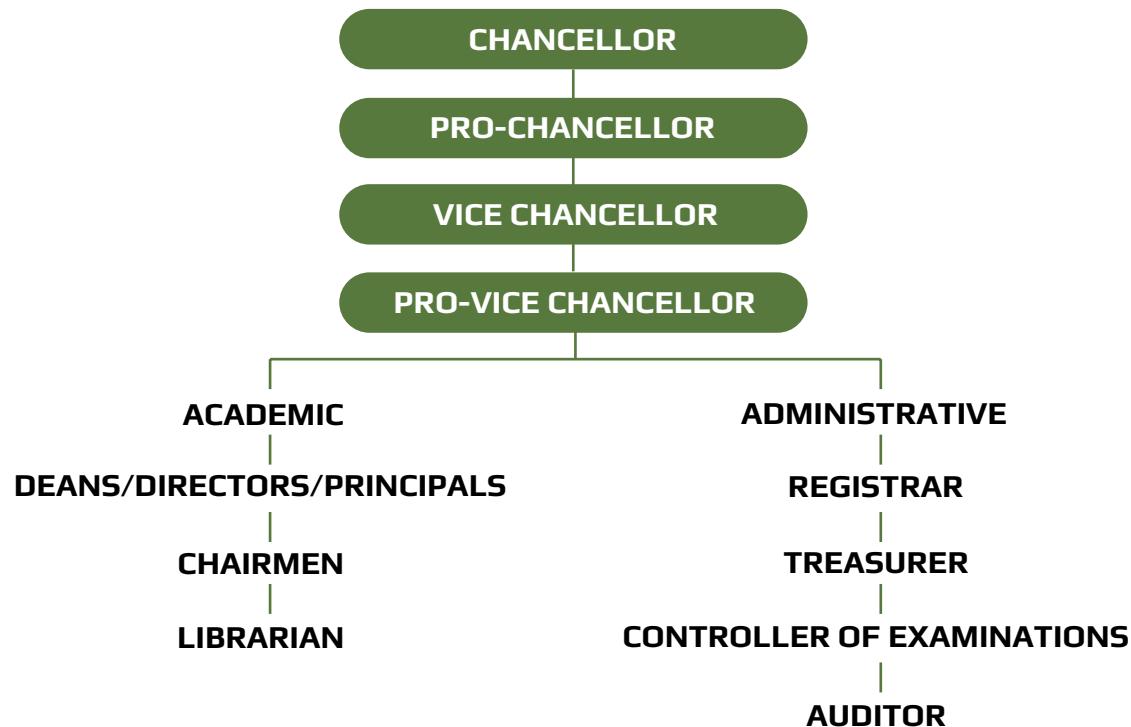
1. Center for Advanced Studies in Agriculture and Food Security (CAS-AFS)
2. Confucius Institute (CI-UAF)
3. International Seed Testing Association (ISTA) Laboratory
4. Pak-Korea Nutrition Center (PKNC)

## Administration

The Governor of the Punjab is the Chancellor and Chairman of the University Senate. The Minister for Agriculture is the Pro Chancellor of the University, the Vice Chancellor is the principal executive and academic officer of the University. He is also the Chairman of the Syndicate, the Academic Council, the Finance and Planning Committee, the Selection Board, the Advanced Studies and Research Board, the Campus

Committee and is entitled to attend and preside at any meeting of any authority or body of the University. A position of Pro-Vice Chancellor to be nominated by the Chancellor from amongst three senior professors for a term of three years, has also been introduced from the year, 2012. The organization of statutory bodies is briefly given here under:-

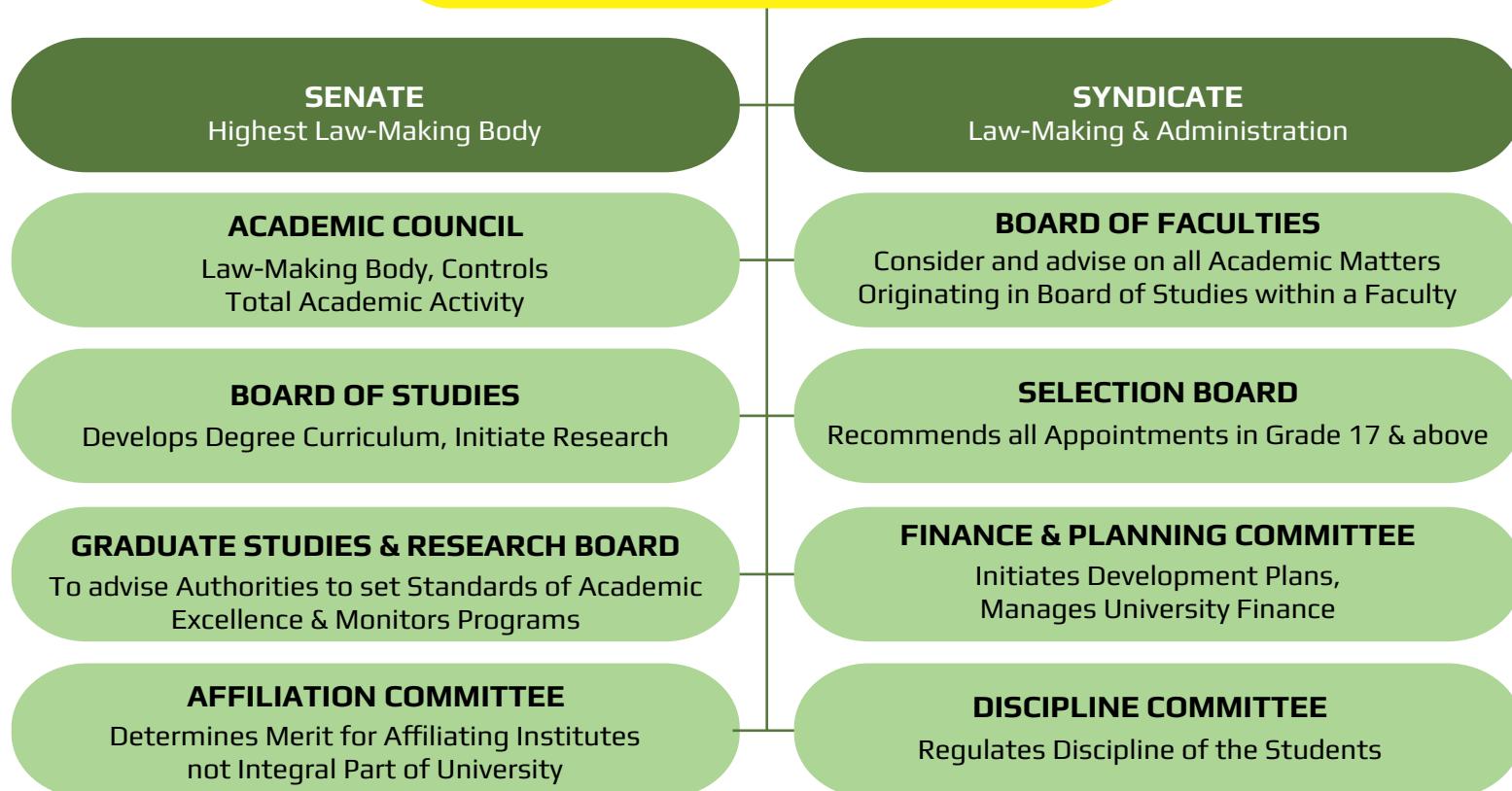
### Organization of The University



The Syndicate is the Executive body of the University. The Academic Council, Board of Faculties, the Board of Studies, the Graduate Studies and Research Board, the Finance and Planning Committee advise the Syndicate on matters pertaining to their respective functions and responsibilities. All statutory bodies comprise men of distinction taken both

from within and outside the University. The routine administration is carried out by the Deans/ Director General/ Directors/ Principals, on the academic side while the Registrar, the Treasurer and the Controller of Examinations handle other administrative matters. The brief functions of these authorities are given in the following table:-

## STATUTORY BODIES



## Academic Organization

The academic organization is aligned to impart education, conduct research and extension in various disciplines through different Faculties, Institutes, National Institute and Departments. The Faculties are headed by Deans', the National Institute by Director General and Directorate by Directors and the Departments by one of the senior teachers of the Departments, called the Chairman.

The University is organized into seven Faculties namely, (i) Faculty of Agriculture, (ii) Faculty of Social Sciences, (iii) Faculty of Agricultural Engineering and Technology, (iv) Faculty of Food, Nutrition & Home Sciences, (v) Faculty of Veterinary Science, (vi) Faculty of Animal Husbandry, and (vii) Faculty of Sciences, directorate of Water Management Research Centre and **Center of Agriculture Biochemistry and Biotechnology**, Institutes of Horticultural Sciences, Soil & Environmental Sciences, Animal and Dairy Sciences, National Institute of Food Science & Technology, Business Management Sciences, Microbiology, Agricultural & Resource Economics, Agricultural Extension and Rural Development, Home Sciences, and Punjab Bio-Energy. The Constituent Colleges of the University have also been established at Toba Tek Singh, Burewala-Vehari and Depalpur-Okara. These Faculties/Constituent Colleges comprises of 65 Departments/Sections developed around various disciplines to provide the requisite infrastructure for purposes of teaching and research in their respective areas of specializations. The University has developed flexible but comprehensive, purpose - oriented and up - dated curricula after critically assessing the qualitative as well as quantitative needs of manpower training under the semester system which was introduced in 1976 both at under - and - postgraduate levels. It has ever since fairly well stabilized, weathering rough times inherent in such switch-overs and adaptation.



## FACULTY OF AGRICULTURE

The Faculty of Agriculture, the largest University faculty, comprises 154 distinguished members and over 6000 students. It comprises two Institutes, five Departments, two centers, and as ISTA laboratory, all dedicated to interdisciplinary research and innovation, showcasing the university's commitment to excellence. Historically, the faculty was evolved from the Punjab Agricultural College and Research Institute in 1961.

The faculty offers three undergraduate degree programs: B.Sc. (Hons.) Agriculture, BS Forestry, and BS Environmental Sciences. Students study common courses for four semesters and choose a major before the fifth. Major subjects include Agronomy, Biotechnology, Entomology, Forestry & Range Management, Horticultural Sciences, Plant Pathology, Plant Breeding & Genetics, Seed Science and Technology, Soil Science, Agricultural Extension, Marketing & Agribusiness. The B.Sc. (Hons.) Agriculture also has an Allied degree program, allowing students to pursue BS in Agricultural & Resource Economics, Food Science & Technology, Microbiology and Animal Sciences after four semesters. The Faculty has also initiated joint degree programs with international partner universities like Dalhousie University in Canada and Washington State University in the USA.

The faculty provides students with advanced technologies and practical scientific skills in agriculture and allied sciences through a modernized curriculum, transitioning from traditional classes to an outcome-based education model. Classrooms are equipped with interactive tablets (smart boards) for audio-video aids, and lectures are conducted online, across campus, and with other Constituent Collegees, adopting a hybrid teaching system.

The Central High Tech lab and departmental laboratories in the faculty have advanced research facilities with modern equipment, focusing on research and product development (R&PD) rather than traditional R&D. The faculty has successfully released various crop varieties, including oilseed, okra, roses and quinoa, and is currently undergoing registration trials for insect-resistant and herbicide-tolerant sugarcane, short duration soyabean and heat-resistant wheat lines. This shift from traditional R&D to R&PD aims to transfer new crop oilseed (UAF-11), okra (3A), roses, and industry. The faculty has successfully released herbicide-tolerant CABB-HITS sugarcane and heat-resilient wheat lines are in the stages of national trials and approval.

The faculty of agriculture has achieved high rankings in education and research, with five departments, two institutes, and one center ranked in the "W" category by HEC and NAEAC. In 2023, the University of Agriculture, Faisalabad has ranked 62nd globally in Agriculture and Forestry by QS World Ranking, surpassing all national Pakistani universities. The faculty has strong interactions with stakeholders, farmers, research industry, and teaching institutes, with alumni conducting regular visits and interactive sessions.



## INSTITUTE OF HORTICULTURAL SCIENCES

Due to continuous improvement in faculty strength, laboratory infrastructure along with modern teaching gadgets at Institute of Horticultural Sciences (IHS), National Agricultural Education Accreditation Council (NAEAC) has upgraded its ranking and now IHS is the top ranked (Category W2) Horticulture/Agriculture Institute of Pakistan. IHS focuses on Pomology, Olericulture, Floriculture & Landscape, Postharvest Technology, Plant Tissue Culture and Mushroom Culture technologies.

### Academic Programs

- B.Sc (Hons.) Agriculture-Horticulture
- M.Sc (Hons.) Agriculture-Horticulture
- Ph.D. Horticulture
- Associate Degree Farm Management

### Specializations

- Fruit Sciences
- Vegetable Sciences
- Floriculture and Landscape
- Postharvest Technology
- Plant Tissue Culture
- Mushroom Culture
- Seed Production
- Medicinal Plants Production

### Career options

- Agricultural, Academic and Research Institutes
- Agricultural Extension Departments

- Parks & Horticulture Authorities
- Directorate of Floriculture
- Cantounment Boards
- Farm/ Orchard Managers
- Pack House Manager
- Nursery Production and Marketing Business
- Seed and Pesticides Companies
- Overseas employment opportunities
- Entrepreneurship/self business (Fruit orchards, open field vegetable production, tunnel farming, mushroom production, fruit plant nursery, ornamental plant nursery, landscape company, consultancy etc)

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## INSTITUTE OF SOIL & ENVIRONMENTAL SCIENCES

Institute of Soil and Environmental Sciences was established in 2003 by upgrading the former Department of Soil Science to the status of an institute. The Department of Soil Science was established in 1961 when the University of Agriculture, Faisalabad was created from the former Punjab Agricultural College and Research Institute that had been established in 1906 and which had developed a significant record of teaching, research and extension. Prior to 1961, Soil Science operated within the Section of Chemistry and Agricultural Chemistry.

The Institute of Soil and Environmental Sciences has an infrastructure, which is at par with the international standards. The institute has well qualified and dedicated teachers. Most of them are Ph.Ds having experience of working in foreign countries as post-docs/visiting scientists. They have developed good international linkages through different research projects. The research laboratories of the Institute are well-equipped with good facilities. The Department/Institute has, by now, produced 1380 B.Sc.(Hons.), 1607 M.Sc.(Hons.) and 107 Ph.D. students.

The Institute is actively engaged in research on different aspects of Soil Fertility and Plant Nutrition, Soil and Water Chemistry, Saline Agriculture, Soil Microbiology and Biochemistry, Soil Physics, Environmental Sciences and Climate Change. Advisory services to farmers are also rendered upon request. The Department/Institute by now has completed about 65 research projects. At present, twenty-three research projects, funded by different national and international agencies, are in progress. The contribution and dedication of the staff towards research is reflected through the publication of 18 books, 28 book chapters, 10 monographs, 120

technical reports and above 855 research papers at foreign and local levels. The dedications of the faculty members have also been recognized by various national and international organizations through prestigious awards like Pride of Performance, Best Scientist in Agriculture, four Best University Teacher awards, Tamgha-i-Imtiaz, two Pakistan Academy of Sciences Gold Medals in Agriculture and Best Scientist in Agriculture 2007 award of the Third World Academy of Sciences and Research Productivity Awards from Pakistan Council for Science and Technology. A new degree of B.Sc.(Hons.) Environmental Science in the Institute besides the already existing Soil Science major from the session 2012-2013, has been initiated.

Dr. Javaid and his team conduct research on soil salinity and salt tolerance of different field crops (wheat, rice, cotton, maize and sunflower) trees and grasses (*Atriplex*). He has taken leadership in International & National projects for the revegetation/rehabilitation of salt affected soils through saline agriculture technology and use of brackish water/drainage effluent for field crops and forestry. He has also launched a productivity enhancement program in the salt affected area around Faisalabad, where saline agriculture was successfully demonstrated to restore the productivity by planting salt tolerant tree, forage shrubs and crops. Different local & exotic tree species were selected for salt-affected soils and planted at the farmers' fields having salinity and poor-quality water availability through agroforestry projects. He is currently teaching and supervising a number of post graduate students, and to date, 10 PhD and over 65 M.Sc. (Hons.) students have completed their theses under his supervision. He has published more than 70 national and international research and review articles and has organized several International Conferences and training courses.

## FACULTY OF SOCIAL SCIENCES

The Faculty of Social Sciences is playing an important role in building human resources for the exploration of socio-economic aspects of national and international importance and assisting policy makers and development practitioners in the formulation of pro-poor policies for sustainable rural development and improved livelihoods of communities. Another impetus for meaningful restructuring of the faculty is to meet emerging requirements of the economy in the light of changing global relationships. The faculty is actively involved in assisting provincial and federal governments on various policy issues by contributing through policy briefs and arranging policy-oriented seminars and colloquia.

### **Vision**

Dynamic Pattern in the development of curricula and research to stay competitive and progressive. Developing manpower in the subject areas in line with the demands of local economy and international markets.

### **Mission**

Human resource development capable of keeping economy on a progressive growth path. Formulation of policy alternative by conducting solution-oriented research to assist the decision makers and others. The objective is to strive for uniform growth and development pattern in all the areas of the country, so that joint and collaborative environment could be generated amongst different regions of competitive participation in the world markets. Moreover, to deliver research based advisory services among farming community.

### **Components of the Faculty**

- Institute of Agricultural & Resource Economics
- Institute of Agricultural Extension, Education and Rural Development
- Institute of Business Management Sciences
- Department of Rural Sociology

### **Academic programs**

- B.Sc. (Hons.) Agricultural & Resource Economics
- B.Sc. (Hons.) Agriculture (Major: Agricultural Extension)
- B.Sc. (Hons.) Agriculture (Major in Marketing and Agribusiness)
- BS Economics
- BS Sociology
- B.Ed. (Hons.)
- BBA
- BBA Agri. Business
- BS Commerce
- BS Development Studies

### **Specializations**

- Agricultural Economics
- Development Economics
- Environmental & Resource Economics
- Economics
- Rural Sociology
- Population Sciences
- Sociology
- Agricultural Extension
- Rural Development
- Education

- MBA (Marketing, Management, Finance, Agribusiness, Management Information)
- System, Human Resource Management) Commerce
- Agribusiness/ Agri. Marketing

**Careers**

- Agriculture Department (Economics & Marketing and Extension wing)
- Environmental Management
- Community Development
- Agribusiness
- Water Management/Economics of Water
- Education Sector
- City and Regional Planning
- Community Organizations
- Research organizations
- Agro-based Industries
- Social Work

- Family Planning Program
- Demography/Anthropology
- Mortality and Migration
- Banks and Insurance companies
- Marketing ventures
- Business Management
- Agri. Policy/Food Policy analyst
- Economic Analysis
- NGOs
- Rural Development and Agri. Extension

**For further information:**

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## INSTITUTE OF AGRICULTURAL AND RESOURCE ECONOMICS

Institute of Agricultural and Resource Economics (IARE) was established in 2012 by merging three departments i.e. Department of Agricultural Economics, Development Economics and Environmental and Resource Economics. The IARE delivers students with economic knowledge, quantitative tools and communication skills necessary to secure professional positions in a wide range of industries and public organizations of national and international repute. The institute offers the following degree programs at undergraduate and postgraduate levels;

### **Undergraduate Degree Programs at the IARE:**

- BSc (Hons) Agricultural and Resource Economics
- BS Economics

### **Postgraduate Degree Programs at the IARE:**

- MSc (Hons) Agricultural Economics
- MSc (Hons) Development Economics
- MSc (Hons) Environmental and Resource Economics
- MPhil Economics

Furthermore, the Institute is also offering PhD in Economics, Agricultural Economics, Development Economics and Environmental and Resource Economics.

The IARE is actively engaged in undertaking research projects funded by national and international organizations including, HEC, GoP, ADB, FAO, the World Bank, ILRI, JICA, IFPRI, USAID, ACIAR,

CSIRO etc. During the last decade, more than 18 PhD and 600 M.Sc. (Hons) / MPhil graduates were produced who are serving in various national and international institutes of repute including, PARC, IWMI, GoP departments / ministries, NGOs and other national and international research institutions/organizations.

### **For Further Information:**

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## INSTITUTE OF AGRICULTURAL EXTENSION, EDUCATION & RURAL DEVELOPMENT

Institute of Agri. Extension, Education & Rural Development is the leading Institute in the Universities all over Pakistan dealing with Agricultural Extension Education & Rural Development. The Institute is offering various undergraduate and postgraduate degree programs. Undergraduate degree programs include: B.Sc. (Hons.) Agri. Sciences major in Agricultural Extension, B.Ed. (Hons.), BSDS and B.Ed. under both evening & weekend modes. The postgraduate programs include: M.Phil. Education, M.Sc. (Hons.) Rural Development, M.Sc. (Hons.) Agricultural Extension, and Ph.D. Agricultural Extension. At present a number of M.Sc. (Hons.) & doctoral students are pursuing their studies and working on various research projects in the Institute. Apart from teaching and research, the Institute is actively involved in outreach programs for the guidance and education of the farmers and general public. The Institute organizes in-service training courses for governmental and non-governmental personnel inducting nominees of Pakistan Army (both at commissioned and non-commissioned levels),

Banks, NGOs and other agencies responsible for agricultural and rural development. Various national and foreign funded research/technology transfer projects on mobile apps, food security, gender empowerment, communication, rural development, ICT in Agriculture and related social issues, cyber Extension are being implemented at the Institute. The credit goes to this Institute to play a significant role in establishing UAF FM 100.4 radio station; initiating weekend degree programs of the University, and Information Technology at the campus.

**For further information:**

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### **INSTITUTE OF BUSINESS MANAGEMENT SCIENCES (IBMS)**

The Institute of Business Management Sciences (IBMS) aims at imparting education in the fields of Management, Agribusiness, Marketing, Human Resource Management and Information Technology.

**Academic Programs and Specializations**

- BBA (Agribusiness) Morning
- BBA (Specialization in Marketing, Human Resource Management and Banking & Finance) Morning & Evening

- B.Sc. (Hons.) Agriculture (Marketing and Agribusiness Major) Morning
- BS Commerce Morning & Evening

**Career Options**

- **Private Sector**

Textile Industry; Sugar & Flour Mills; Nurseries; Banks; Accounting Firms; Fertilizer; Seed & Pesticide Companies; NGOs and Private Farms; Entrepreneurship.

- **Public Sector**

Pakistan Horticulture Development & Export Company, Market Committees, Public Offices, State Bank, Zarai Taragiati Bank, Universities, Department of Agriculture, PASSCO, Food Department, Agriculture Policy Institute, Department of Agriculture & Livestock Product Marketing & Grading, Pakistan Agriculture Research Council, Pakistan Economic Research Institute, Commercial Banks, Agricultural Commercial Banks.

**For further information:**

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## FACULTY OF AGRICULTURAL ENGINEERING AND TECHNOLOGY

The Faculty of Agricultural Engineering & Technology was established in 1961 when the Punjab Agriculture College, Lyallpur was given the status of University of Agriculture, Lyallpur. It's a crucial Faculty that combines engineering principles with agricultural practices to solve industry challenges. The main objective of the Faculty is to train manpower with a high degree of specialist knowledge who understand the technologies for effective utilization of water, land, energy and food resources together with those related to engineering biological production

that take into account climate change and resource conservation. The Faculty comprises of six departments, Farm Machinery & Power, Irrigation & Drainage, Structures & Environmental Engineering, Food Engineering, Energy Systems Engineering and Fiber & Textile Engineering Technology, which offer five degree programs. All the degree programs are HEC recognized and accredited from Pakistan Engineering Council (PEC). The major fields of studies comprise of required technological inputs such as precision agriculture (IoT and automation), land development & preparation machinery, soil and water conservation techniques, seeding or planting, plant protection, harvesting, post-harvest handling, transportation, structures, storage of grain and perishables, and energy and waste management for increased and sustained agricultural production.



## FACULTY OF VETERINARY SCIENCE

In tandem with the two institutes (viz., Institute of Physiology & Pharmacology and Institute of Microbiology), the FVS has 6departments, including Departments of Anatomy, Pathology, Parasitology, Clinical Medicine & Surgery, Theriogenology, Epidemiology and Public Health. The Faculty offers two undergraduate and various postgraduate degree programs. The FVS has 58 faculty members comprising 4 Professors, 11 Associate Professors, 14 Assistant Professors, 12 Lecturers and 17 Visiting Faculty. As of now, the Faculty has produced around 4451DVM graduates, 3742MSc /MSc (Hons)/ MPhil and 240 PhD. Over 95% of teaching faculty is PhD holder, which cater to instructional needs of under and postgraduate students of FVS as well as other faculties. The Faculty runs a top ranked veterinary

journal (Pakistan Veterinary Journal; 2022 IF 2.3; WoS Q1) in the country since 1981. The Faculty operates premier Veterinary Medical Teaching Hospitals in the country and has well developed industry-linked diagnostic and research laboratories. The faculty renders artificial insemination and reproductive health services to the dairy farmers. The Faculty plays a significant role in flourishing the livestock and poultry production in the country.

### ACADEMIC PROGRAMS

#### **Undergraduate Degree Programs:**

- i. Doctor of Veterinary Medicine (DVM)
- ii. B.Sc. (Hons.) Microbiology

#### **Postgraduate Degree Programs:**

- i. M.Phil. & Ph.D. in Anatomy, Parasitology, Physiology,



Pharmacology, Pathology, Microbiology, Clinical Medicine & Surgery and Theriogenology

ii. M. Phil. in Epidemiology and Public Health

### **CAREER OPPORTUNITIES**

#### **Public Sector**

- Teaching Institutes
- Veterinary Hospitals
- Poultry Production Department
- Government Livestock Farms
- Remount Veterinary and Farm Crops (RVFC)
- Quarantine Department at Federal level
- National Veterinary Laboratory
- Research Organizations (VRIs)
- Wildlife Department
- Veterinary Diagnostic Laboratories

#### **Private Sector**

- Poultry Industry
- Livestock and Dairy Farms
- Veterinary Pharmaceuticals
- Nestle, Haleeb, Angro, Sharif Dairy Farms etc.
- Poultry Processing Plants
- Diagnostic Laboratories
- Private Clinics for Pets and Large Animals

#### **Contact:**

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### **INSTITUTE OF MICROBIOLOGY**

Institute of Microbiology is one of the prominent institute in Pakistan established as Department of Microbiology in 1962 and upgrade to Institute of Microbiology in 2010. The institute is engaged in providing the complete education, trainings, research and academic opportunities to train human resource in different field of Microbiology. This Institute has different sections including Bacteriology, Mycology, Virology, Immunology, Vaccinology, Biotechnology, Epidemiology and Public Health. It also has facility of Biosafety level II/III laboratories for advanced and cutting-edge research. It also provides man power who serves to the allied industries such as poultry, livestock, pharmaceutical, food, quality control management, vaccine and biologics, research laboratories, armed forces and provides latest diagnostic assistance for both human and veterinary sector. Along with BS Microbiology courses, the Institute also teaches the courses to DVM students, and offer minor courses to other departments and institutes e.g. NIFSAT, CABB, Home Economics, Animal Sciences, Bioinformatics, Agriculture, Agricultural Engineering and Biochemistry.

#### **Degrees Offered:**

- B.Sc.(Hons.) Microbiology
- M.Phil. Microbiology
- Ph.D. Microbiology
- One Health Certification (Short course)

#### **For further information:**

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## FACULTY OF ANIMAL HUSBANDRY

The Faculty of Animal Husbandry was established in 1962. At the moment the Faculty is a concoction of four disciplines viz., Animal Breeding and Genetics, Animal Nutrition, Livestock Management and Poultry Science to constitute the Institute of Animal and Dairy Sciences.

The Faculty offers three 4-years undergraduate degree programs viz., BS Animal Sciences, BS Dairy Science, and BS Poultry Science (at UAF Constituent College, Toba Tek Singh) and one after 2 years in Agri-Sciences named B.Sc. (Hons) Animal Sciences. In these programs more than 500 students are currently enrolled. Furthermore, 8 postgraduate degree programs including four masters and four PhD programs corresponding to the four mentioned disciplines are also offered. In these postgraduate programs more than 150 students including 15 PhD scholars are currently enrolled.

The faculty has recently upgraded and transformed both undergraduate and postgraduate level courses following HEC policy and outcome based education (OBE) standards and in order to strengthen practical training for undergraduate students several skill development courses along with capstone projects and internship have also been included in the new scheme of studies.

The teaching faculty is highly qualified and keep on capacity building through local and overseas training programs. The teachers are recognized by Higher Education Commission to supervise Ph.D. candidates. The faculty members have published more than 60 books for the benefit of students, extension workers and the farming community. A fair number of research projects

have also been completed by the faculty members so far and their salient outcomes have been published in reputed impact factor journals. In the faculty a sub-center of "National Center of Livestock Breeding, Genetics and Genomics" has also been established for implementation of genomics to improve livestock and for hand on training of the professionals/ farmers for different molecular and computational skills required in various domains of animal production. A livestock feed mill is also functional and manufacturing different rations for feeding of dairy and meat animals.

The Faculty has the mandate to genetically improve livestock and poultry species and following precision activities including feeding and management to enhance animal production for food security and thus to bring more prosperity to the farmers and in turn to the nation. The faculty imparts practical training to students and enriches their research endeavors through conducting research trials at Livestock and Poultry Farms of the University. The Faculty is serving the farming community through its technology transfer projects and free advisory services for improved livestock productivity. The Faculty regularly organizes buffalo/cattle/goat milk and beauty competitions, goat show, fancy bird show, cat show and exhibitions to motivate and educate animal breeders. The Faculty of Animal Husbandry is the pioneer institution that imparts Animal Science education in the country. Therefore, it remains a first choice for Animal Science graduates for learning throughout Pakistan. It has gained an esteemed learning place for foreign/overseas students as well.

## **FACULTY OF HEALTH AND PHARMACEUTICAL SCIENCES**

The UN SGD#3, Good Health and Well-being goal necessitates equitable health and services for communities, provision of innovative healthcare technologies and prevention of public health diseases. The Faculty of Health and Pharmaceutical Sciences at UAF is mandated to play a quintessential role through demand-driven research, innovation, teaching, skill development, capacity building and community service. To comply with the WHO International Health Regulations (IHR) and Global Health initiatives, the Faculty is committed to attain the targets of universal healthcare provision, education, policy and international collaborations. The priority areas of research and innovation are pharmacy, public health, epidemiology, One Health, medicinal plants, nutraceuticals, neurocognitive/mental health research and medical health services. The guidelines of Pharmacy Council of Pakistan, DRAP and HEC are in place. To substitute the import bill of country, indigenous solutions of pharmaceutical production and commercialization are main priorities of the Faculty. The Faculty of Health and Pharmaceutical Sciences mission is to produce skilled graduates, biologics-diagnostics production and public-private entrepreneurial research to contribute in the knowledge-based economy of Pakistan.

### **Department of Pharmacy : Overview.**

Pharmacy profession has historic roots as the art and science of preparing and dispensing medications. This role of pharmacist had been transformed to wide ranging activities: health care systems (community, hospital and clinical pharmacy settings),

pharmaceutical industry, biotechnology industry, research (drug discovery, drug development and drug delivery), drug regulatory agencies, academics and training of health workers.

Pharmacy as a distinct profession forms the edifice of the health care system on which lies success of well-being of the community. With the rise of population worldwide during the last few decades, it has been realized that the conventional traditional medical and healthcare services are unable to play any significant role in the overall improvement of health status. This realization has driven all health professionals to the common goal of disease prevention and health promotion. In developed countries the clinical direction of Pharmacy has laid emphasis on the manipulative product-oriented and distributive skills and focuses more on the public health awareness. Today the Pharmacy profession has become highly patient-oriented which this has created much more opportunities for the pharmacists in hospital and community Pharmacy especially in the USA and the Middle East, while in Pakistan still 75% opportunities are in the industrial sector.

Department of Pharmacy is one of the premier departments of the University. The Department is actively engaged in establishing modern laboratories equipped with all necessary instruments and equipment. Recently the laboratories are upgraded with the latest instruments like spectrophotometer, double beam UV-visible spectrophotometers high speed centrifuge machines, rotatory evaporator and polarimeter etc. Pharmacy department lecture rooms are equipped with audiovisual system with sufficient seating capacity with audiovisual arrangement. Industrial linkages have been developed with local industry, clinical training facilities with Aziz Fatima Teaching Hospital Faisalabad, for practical training and residency in clinical, hospital and community pharmacy. Pharmaceutical Chemistry group is working on the applications of

new chemical approaches to improve synthesis of active moiety and evaluation of important bio functionalities of valuable green pharmaceuticals/natural products. The faculty members of this department are highly qualified and well experienced in their respective fields. They truly care about development and success of their students.

#### **Department of Epidemiology and Public Health**

Department of epidemiology and public health strive to create a healthier world by understanding and addressing the complex factors that affect public health. The primary mission of this department is conducting rigorous research to understand the causes, distribution, and prevention of diseases in populations. This includes studying health disparities and the factors that contribute to them. This department also collaborates with communities to apply research findings in real-world settings, aiming to improve public health outcomes and promote health equity.

#### **Medicinal Plants & Nutraceuticals**

The mission of this department is to provide education and training to students, researchers, and professionals in the field of medicinal plants and nutraceuticals. This includes offering courses, workshops, and hands-on training to build expertise. This department will also work for Informing and influencing policies related to the use of medicinal plants and nutraceuticals.

This involves working with regulatory bodies to ensure the safety, efficacy, and quality of these products.

#### **Medical and Health Centre**

Primary objective of this centre is to provide high-quality, compassionate, and patient-centered care to all individuals. This includes ensuring accessibility and affordability of healthcare service.

#### **Neurocognitive behavioral sciences research, treatment and rehabilitation centre.**

Primary objective of this centre will be to provide comprehensive and personalized treatment plans for individuals with neurocognitive and behavioral disorders. This involves integrating the latest scientific advancements into clinical practice to improve patient outcome. It will also promote awareness and understanding of neurocognitive and behavioral disorders within the community and globally. This involves outreach programs, support groups, and collaborations with other health organization

## **FACULTY OF FOOD, NUTRITION AND HOME SCIENCES**

Faculty of Food, Nutrition and Home Sciences (FFNHS) was established in 2014 at the University of Agriculture, Faisalabad with mission of advancing education, research and community outreach in food sciences, nutrition and home sciences.

### **COMPONENTS OF THE FACULTY:**

- National Institute of Food Science and Technology
- Institute of Home Sciences
- Pak-Korea Nutrition Center (PKNC)

### **NATIONAL INSTITUTE OF FOOD SCIENCE AND TECHNOLOGY (NIFSAT)**

National Institute of Food Science and Technology is recognized as an excellent institution playing a key role in the transformation of food and nutrition disciplines to be competitive nationally and internationally. It is providing comprehensive education under "National Institute of Food Science and Technology" and "Institute of Home Sciences" that blends theoretical knowledge with practical skills in Food Science and Technology, Food Safety and Quality Management, Dairy Technology, Human Nutrition and Dietetics, Home Economics, Human Development and Family studies, clothing and textiles and related disciplines.

### **VISION**

To promote excellence and innovation in the fields of food, nutrition, and home sciences, through transformative education, pioneering research, and active community engagement by empowering students with comprehensive knowledge and practical skills, advancing cutting-edge research, and collaborating with diverse stakeholders, including communities and policymakers.

### **MISSION**

The aim of the National Institute of Food Science and Technology is to make nation prosperous, and food secure with better health. This will be achieved with the following mission:

- Gain scientific and technical knowledge to solve the problems in the food industries regarding the processing of different food products
- Create and develop new food products, and therapeutic recipes by adopting novel and innovative technologies for different stakeholders
- Advance knowledge through basic and applied research

### **INSTITUTE OF HOME SCIENCES**

The Department of Home Economics was established in 1980-81 with the introduction of Diploma in Rural Home Economics. Whereas the two years program leading to the degree of B.Sc. Home Economics was initiated in 1990. The duration of the B.Sc.(Hons.) Home Economics degree is also extended up to four years to keep parity with the other degree programs of the University of Agriculture, Faisalabad in 2005. B.Sc. (Hons.) Home Economics four years is also in accordance with the directive of

the Vice Chancellor and Higher Education Commission (HEC). Department of Rural Home Economics upgraded to Institute of Rural Home Economics in 2012 and in 2014 the nomenclature was transformed into Institute of Home Sciences.

#### **Vision**

Rural and urban development through education and sensitization of women to play better role in society.

#### **Mission**

To educate and empower women by imparting knowledge of nutrition, hygiene, safety, public health, early childhood development, personality development, textile technologies, and latest trends of fine arts.

### **PAK-KOREA NUTRITION CENTER (PKNC)**

The Pak-Korea Nutrition Center (PKNC) is a flagship collaboration between the Government of Pakistan and the Republic of Korea, spearheaded through the Korea International Cooperation Agency (KOICA). PKNC addresses a pressing national challenge—malnutrition, which affects over half of Pakistan's population.

PKNC hosts six specialized research chairs:

1. Nutrition and Public Health
2. Food Fortification
3. Food Processing
4. Product Development and Value Addition
5. Compositional Analysis and Database
6. Policy, Advocacy and Outreach

The project trained 35 master trainers, who in turn reached over 12,000 nutrition educators, lady health workers, nutritionists, and primary school teachers while focussing on maternal and child health and nutrition. PKNC took a significant step by launching a school meal program under Nutrition & Public Health (NPH) chair, providing 30 consecutive days of fortified meals to students.

#### **ACADEMIC PROGRAMS:**

##### **Degree Programs Offered By NIFSAT:**

- B.Sc. (Hons.) Food Science and Technology
- M.Sc. (Hons.) Food Technology
- Ph.D. Food Technology
- B.Sc. (Hons.) Human Nutrition and Dietetics
- M.Sc. (Hons.) Human Nutrition and Dietetics
- Ph.D. Human Nutrition and Dietetics
- M.Sc. (Hons.) Dairy Technology
- M.Sc. (Hons.) Food Safety and Quality Management
- M.Sc. (Hons.) Food Service Management

##### **Degree Programs Offered By IHS**

1. B.Sc. (Hons.) Home Economics Major
  - Food and Nutrition
  - Textile and Clothing
  - Human Development and Family Studies
  - Art and Design
  - Interior and Environmental Design
  - Resource and Facility Management
2. M.Sc. (Hons.) Home Economics (Food and Nutrition)
3. M.Sc. (Hons.) Home Economics (Clothing and Textile)
4. M.Sc. (Hons.) Home Economics (Human Development and Family Studies)

**SPECIALIZATIONS**

- Food Technology
- Food Service Management
- Food Safety and Quality Management
- Meat and Dairy Technology
- Cereal Technology
- Clinical Nutrition
- Public Health Nutrition
- Sports Nutrition
- Clothing and Textile
- Resource and Interior Management
- Food and Nutrition

**CAREERS**

- Food Technologists in industries
- Quality Assurance/Quality Control Managers
- Food Safety Officers/Inspectors
- Entrepreneur in food business/processing units
- Teaching and academic careers in universities/colleges
- Clinical Dietitians in hospitals and clinics
- Public Health Nutritionists (Govt. and NGOs)
- Interior Designers and Resource Managers
- Fashion and Textile Designers
- Extension Workers in rural and urban communities

**FOR FURTHER INFORMATION:****THE STATUTES AND REGULATIONS RELATING TO THE FIRST DEGREE AWARDED BY UAF****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:

<b>Sr. #</b>	<b>Name of Degree</b>	<b>Credit Hours</b>
1.	B.Sc. (Hons.) Food Science and Technology	144 credit hours for a duration of 8 semesters
2.	B.Sc. (Hons.) Human Nutrition and Dietetics	143 credit hours for a duration of 8 semesters

**II. REGULATIONS****Admission Requirements****3. Authority of Admission**

The following will be the admission authorities for carrying out admission in the degree programs mentioned below offered at main Campus as well as Constituent Colleges:

<b>Sr. #</b>	<b>Name of Degree</b>	<b>Admission Authority</b>
1.	B.Sc. (Hons.) Food Science and Technology	Dean, Faculty of Food, Nutrition and Home Sciences
2.	B.Sc. (Hons.) Human Nutrition and Dietetics	

## FACULTY OF SCIENCES

The Faculty of Sciences was established in 1973 and it is the 2nd biggest faculty in the University. It consist of nine department i.e. Department of Botany, Department of Computer Science, Department of Chemistry, Department of Biochemistry, Department of Humanities and Linguistics, Department of Islamic Studies, Department of Physics, Department of Mathematics and Statistics, Department of Zoology, Wildlife and Fisheries. The teaching staff is highly qualified and trained periodically through local and overseas training programs.

The Faculty of Sciences offers BS degrees in the disciplines of Biochemistry, Botany, Chemistry, Computer Science, Information Technology, Software Engineering, Bioinformatics, Artificial Intelligence, Data Science, Mathematics, English, Statistics Physics and Zoology. and MS/M.Phil. Degree Programs in the disciplines of Biochemistry, Botany, Chemistry, Computer Science, Physics, Mathematics, Statistics, Software Engineering, Bioinformatics and Zoology. The Ph.D Degree Programs are also in the disciplines of Botany, Biochemistry, Computer Science, Statistics, Physics and Zoology.



## FACULTY OF ARTS AND HUMANITIES

Faculty of Arts and Humanities is where creativity meets critical inquiry. Our faculty is dedicated to exploring the complexities of human experience through a diverse range of disciplines, including:

- Department of Islamic Studies
- Department of English and Linguistics
- Department of Art and Design
- Department of Pakistan Studies, History, Anthropology, Psychology
- Waris Shah Chair

At the heart of the mission of the faculty is the belief that understanding the arts and humanities is essential for fostering

engaged, informed, and empathetic citizens. The faculty aims to cultivate critical thinking among students who can navigate and contribute to an increasingly interconnected world.

Our programs emphasize interdisciplinary collaboration, encouraging students to draw connections across fields and apply their knowledge to real-world challenges. Whether through analyzing classical texts, engaging in artistic expression, exploring social justice or religious understanding, our students are empowered to develop unique perspectives that enrich their academic and professional journeys. It helps in creating a richness of human culture and creativity and preparing to make a meaningful impact in a variety of careers and communities.

Currently, the constituent departments are offering BS. English, BS Pakistan Studies, and BS. Fine Arts. The post-graduate degree programs in these disciplines are also in the pipeline.



## **PARS CAMPUS / UAF COMMUNITY COLLEGE**

To serve the community in terms of providing skilled and professional manpower, initiating various educational programs particularly for low-income underprivileged groups, and provide competent nursery for admission at undergraduate level in various disciplines, University of Agriculture, Faisalabad, established UAF Community College in 2011.

The main objective is to disseminate quality education emphasizing on integrated approach to produce skilled manpower in agriculture, basic sciences and allied disciplines. The skilled manpower will serve in public and private sector organization to uplift the standard of the livelihood of the community. As the admission is based purely on merit basis on reserved seats for each district of Punjab, the college represents the whole community of Punjab Province. The college has a spacious and beautiful architecture building situated at Jhang Road, Airport Chowk, Faisalabad.

The Postgraduate (M.Phil) programs in the subjects of Botany,

Chemistry, Physics, and Zoology have been launched at the College's building in 2017 whereas the BS (Physics, Chemistry, Zoology, Botany, English, Math, Stat and Biotechnology) degree programs have been started since 2021. The BS programs in the subject of Computer Science and Software Engineering have also been started since 2023. State of the art facilities are available at the campus and highly qualified faculty ensure high standards of education.

The Community College also offers diploma in Modern Agriculture Technology (MAT) and English Access program. In order to cater the needs of community in particular employed people, Community College, also offer B.Ed weekend program since 2021.

UAF Community College has highly qualified and well experienced staff. Most of the faculty members are Ph.D and Post Doc from abroad and have experience of teaching and research at International Universities. They are well seasoned in their respective fields and circumspect in training of manpower. They provide the tools to students, which is required to build the competent, skilled and self-assured professionals.



## **UAF CONSTITUANT COLLEGE TOBA TEK SINGH**

University of Agriculture Faisalabad Constituent College, Toba Tek Singh was established on 5th of June, 2005 with the vision put forth by the then Governor/Chancellor that Universities should develop programs for the benefit of local masses in remote areas of the province. Toba Tek Singh is famous for Poultry and this sector plays a pivotal role in meeting the needs for animal protein shortage among the masses. Keeping in view the said scenario, there was a dire need for an institute which could deal with the problems of poultry industry, livestock production, Citrus production and technology transfer. Further as the peoples of Toba Tek Singh have great craving for higher education and on their intensive demand various under and postgraduate degree programs are being offered successfully at the Constituent College. As far as the infrastructure is concerned, a double storey Academic block, an Administration block, three students hostels (one for girls, two for boys), foreign faculty hostel, cafeteria, library and infirmary surrounded by lush green lawns and beds of multi-color flowers are there to enhance and increase the charm and attraction of the campus. A well Equipped Nutrition, Poultry Science, Pathobiology, Diagnostic Lab and a computer laboratory with PERN connectivity with digital E. Library and a Library having latest editions of books related to different degree programs are there to train the students according to the needs of the time. UAF Constituent College Toba Tek Singh having the said facilities is emerging as the only apex academic and research institutions

having a diligent faculty with diverse academic background in the relevant fields. At present, the Constituent College is offering the following undergraduate programs BS Poultry Science, BS Animal Science, BS Computer Science, BS Chemistry, BS Zoology, BBA, B.Sc. (Hons.) HND as morning and BS IT, BS Math, BS Physics, BS English, BS Botany as evening degree programs whereas B.Ed. is being offered as weekend program. Further Postgraduate degree programs i.e. MS Zoology, MS Chemistry, MS Computer Science, M. Sc. (Hons.) Animal Nutrition, M.Sc. (Hons.) Poultry Science and Ph.D. Poultry Science are also being offered at the campus. Two years diplomas in Livestock and Poultry are also being carried out at present. Carrier options include Hatchery, Feed Mills, Breeder Farm, Poultry Farm, Research Laboratories and Diagnostic Laboratories, Teaching Institutes, Government Hospitals, Fashion Designing, Textile Industry, Child and Family counseling, City Art Council, Vocational Training Institutes, Accounting, Public Administration, Financial Planning, Banks, Software Development, System and Network administrator, Teaching and Research, Fiber and Textile Industry, Environmental Science and Climate Change Department, Fisheries, Range Management / Forest Department, Education Department, Higher Education Abroad etc.

**For further information:**

City Campus UAF, Constituent College, Near Railway Station, Toba Tek Singh.

Ph: 046-9201098

New Campus Khekha Banglow Road 8-Km from City Toba Tek Singh

Ph: 046-2518699

## **UAF CONSTITUANT COLLEGE BUREWALA**

University of Agriculture, Faisalabad has established its Constituent College at Burewala-Vehari in 2013. Initially classes were started at the building of Regional Agricultural Economic Development Centre (RAEDC), Vehari. Now, construction of infrastructure at Burewala has been completed and regular classes have also been started since March 2016 in the new building at Burewala. Pursuit of academic excellence on the campus is a function of competent, persevering and dedicated faculty and facilities for academic as well as practical training of the students. Out of 49 faculty members, 29 hold PhD from indigenous as well as renowned foreign universities. Research and teaching laboratories are available with significant facilities to demonstrate practical skills as well as to conduct research work according to needs of modern era. The Constituent College offers quality education with subsidized fee structure. Spacious on-campus hostel accommodation is available for both male and female students at affordable charges. Outreach activities and farmers' day, seminars/ Kisan conventions are a continuous feature of the campus to know problems of the farming community and disseminate latest and modern agricultural technologies for enhancing agricultural production and rural development in the region. Campus also playing a vital role in the region by providing technical education in other allied disciplines of agriculture. Capacity building and character building of the students is also one of the major tasks of the campus. For this purpose, number

of events are organized in campus. Currently, UAF Constituent College Burewala is offering 14 undergraduate degree and Livestock Assistant Diploma (LAD) with a total student strength of more than 3200. New degree programs will be initiated keeping in view the demand and need of the region.

### **ACADEMIC PROGRAMS UNDERGRADUATE**

1. B.Sc. (Hons.) Food Science & Technology
2. B.Sc. (Hons.) Human Nutrition and Dietetics
3. B.Sc. (Hons.) Agriculture
4. Bachelor of Business Administration (BBA)
5. BBA (Agribusiness)
6. BS (Computer Science)
7. BS (Information Technology)
8. BS (Software Engineering)
9. BS (Chemistry)
10. BS (Zoology)
11. BS (Botany)
12. BS English (Language & Literature)
13. BS Sociology
14. B.Ed

### **Contact us:**

UAF Constituent College, 7-Km Chichawatni Road, Burewala  
Phone: 0304-9983389, 9983406, 9983676  
Email: [principal\\_burewala@uaf.edu.pk](mailto:principal_burewala@uaf.edu.pk)  
Website: [burewala.uaf.edu.pk](http://burewala.uaf.edu.pk)

## **UAF CONSTITUANT COLLEGE DEPALPUR, OKARA**

Agricultural education is key for revolutionising agriculture through production of new knowledge, innovative techniques, and modern farming skills. In this regard, the UAF has massively contributed by providing skilled and professional manpower for Pakistan's agricultural sector. The newly established UAF Constituent College Depalpur, Okara is located in a unique place that is known for model farming and has become a vibrant centre for modern teaching and research with residential facilities for students. The Constituent College is situated at Okara-Lahore road about 7 km towards Renala Khurd and has a spacious building with a spectacular view of citrus gardens along the bank of Lower Bari Doab Canal. We are setting new regional trends in how education in fields of agriculture and basic sciences can create society-relevant benefits for environment, consumers, and farmers. The on-campus university farms and orchards provide excellent practical facilities for teaching as well as research backed up by a state-of-the-art library for strengthening theoretical basis. We offer one of the best teacher-student ratios and collaborate with farmers and organisations, both locally and internationally to provide our students and staff the exciting opportunities for their career pursuits. The teaching and research facilities of the Constituent College are based around following undergraduate disciplines:

- B.Sc. (Hons.) in Agriculture
- B.Sc. (Hons.) Food Science & Technology
- BS Sociology

- BS Chemistry
- BS Physics
- BS Mathematics
- BS Zoology
- BS Information Technology
- BS Computer Science
- B.Ed. (1.5 year program)
- Diploma in Agricultural Sciences (DAS)

### **Road Map/Activities of this Constituent College include:**

- Achieving excellence of knowledge creation and dissemination
- Educational events and trainings
- Liaison with local farming community and other stakeholders
- Study tours in relevant fields
- Opportunities for career counselling, sports, and character building of students
- On site student seminars and training workshops
- Working with other agencies and organisations on events and programmes to improve agricultural production, management, and capacity building
- Participation in career fairs, conferences and public field days

Bringing together the cutting-edge disciplines of applied and basic sciences, we train our students to search for solutions and contribute towards achieving the sustainable development goals.

### **Our contact:**

UAF Constituent College Depalpur, Okara, Linked Canal Road, 7 km Okara-Lahore Road, Kissan Ada, District Okara  
Email: [tahirmunir@uaf.edu.pk](mailto:tahirmunir@uaf.edu.pk)



## STUDENT SERVICES AT CAMPUS

# Directorate of Financial Assistance and University Advancement

## Office of the Financial Assistance

This office is providing following financial facilities to the deserving and meritorious students:

### 1. Scholarship Programs:

Scholarships are awarded to deserving and meritorious students. An award is based on merit, financial need, or a combination of both merit and need. More than 60 scholarships from different sources (HEC, PEEF, USAID, Alumni and Private Donors) are awarded to students while criteria may vary for each scholarship. University is awarding 10% merit scholarships to graduate and undergraduate students on CGPA basis and 5% to PhD students in addition to need based scholarship.

### 2. Fee Concession:

- Tuition fee concession to the children of University employees (as per their grades)
- Brother/Sister tuition fee concession upto 50% on application through the academic heads.
- Fee exemption to special persons admitted on special persons quota on application through the academic heads.

### 3. Internship Program

An internship is a work-related learning experience for students who wish to develop hands-on work experience in a certain

occupation field. Most internships are temporary assignments, can be shorter or longer depending upon the program requirements. These may be paid, unpaid or partially paid in the form of a stipend.

### 4. Work-Study Program

Work-Study program is the form of financial assistance in which students perform work in exchange for money for education. A number of students are working on various research project sponsored by HEC/Government Department/Organization. The students are also being hired on hourly basis in different departments of the University on hourly wages.

### 5. Student Loan Scheme

Students can also apply to National Bank of Pakistan to get interest free loan in order to support their education. Students are facilitated in processing their applications to NBP, University Branch. Some organization such as First Microfinance Bank Loan Scheme is also extending loan facility to students of UAF, This Directorate is also offering UAF Loan to University students.

### 6. Test for Foreign Scholarships

This office has organized GRE mock activities for preparation of international GRE for Fulbright Scholarship. More than 1000 students got benefit through this activity. Every Year 3 students are awarded by the International GRE Voucher in which test fee is paid by USEFP.

### 7. Installments / Deferment of Fee

Facility to deposit dues in installments / Deferment for financially constrained students and those affected by natural calamities.

## OFFICE OF UNIVERSITY ADVANCEMENT

This mission of University Advancement is to present a clear, consistent and focused message about the University's mission, goal, priorities and performance to the public and to all stakeholders that increase public understanding and support for improving the quality and effectiveness of academic programs., research and services. This office is responsible for the design, implementation and management of programs to raise funds for the students of the University from different sources other than the Government of Pakistan, with particular emphasis upon the corporate sector, alumni, individual private donors and international partners. With the help of UAF Alumni, donors, industry and community, we have more than 60 donors who serve in UAF in different shapes like scholarships, donations etc.

## Office of Alumni Affairs

UAF Alumni Association is growing every day and the office is committed to facilitate the alumni from all parts of the world. Many Alumni associations have been collaborated from all over the world like California Alumni Association, North American Alumni Association and Australian Community Association. Through this Alumni Association, University of Agriculture Faisalabad keeps hailing Alumni updated on the Campus News and Alumni Events.

## Alumni Meet

This office has been arranging Alumni Meet Up every year.

## Office of Career Development Center

Career Development Center aims to produce better employees and employers using the potential of students and graduates of University of Agriculture Faisalabad and contributing positively in the development of the country.

### Facilities for the students:

- Career Counselling & Guidance of the students
- Career Development Skills (Elective Course)
- On-Campus Requirement Drives
- Training, Workshops, Seminars and Job Fairs
- Conducting various sessions on monthly basis for overcoming various issues faced by the students and graduates like resume development, CV writing, jobs search, interviews techniques, communication skills and personality development etc.
- Placement opportunities and Internships (Paid/Unpaid)
- Publishing all vacancies announced from FPSC and PPSC in the University.

## **DIRECTORATE OF STUDENTS' AFFAIRS**

### **Functioning of the Directorate of Students Affairs**

The Principal Officer (Students' Affairs) exercises all Financial and Administrative powers of the Principal Officer in respect of Directorate of Students' Affairs, Foreign Students Advisor, Senior Tutor and their Sub-Ordinate Organizations/Offices. The Principal Office (SA) also act as Chairman, Students Affairs Committee.

The Directorate of Students' Affairs is a strategically important academic support which works to enhance the experience of students at all stages of their stay in the University through provision of a range of professional services. The office of the Students' Affairs establishes a liaison between the University administration and the students. It facilitates the students in addressing their problems pertaining to academics, co-curricular activities, sports, library, examination, transportation, health, fees, career planning and discipline. The Directorate is headed by a Director, assisted by four Associate and eleven Deputy Directors, who remain busy to provide adequate counseling, guidance to the students in their related matters.

#### **Students Services:**

The Directorate of Students' Affairs ensures peaceful co-existence among the students with their diverse ethnic, cultural and religious back grounds and the image of the University at National and International levels. The different responsibilities of the Students Affairs office include:

- To maintain discipline at the campus by regular round of the campus was assured from 08:00 AM to 08:00 PM by the Director, Associate and Deputy Directors Students's Affairs throughout the year.
- A well-equipped computerized I.D. card unit has been established in the Directorate, to issue computerized I.D. cards to male and female students, teachers and staff of the University separately.
- Pick and drop facility is provided to non-border students and employees by the Directorate.
- Transport facility is provided for student's study tours to different Faculties/Institutes and also to the employees for their self marriage of their son/daughter by the Directorate.
- A hall having sitting capacity for 110 persons is available in the Directorate to hold student's functions i.e. welcome party, farewell, class activities, national and international seminars.
- Besides above activities, the Directorate is managing the following components:
- University main Cafeteria/Canteens at main & PARS campus providing quality food items at chapter rates to the students and staff.
- A Shopping Centre at main campus consisting of binding, photostat, fruit shops, general stores, barber and souvenirs shops to facilitate the students for shopping on marginal rates.
- The Directorate monitor shuttle bus service within the main campus as well as between main campus and PARS campus to facilitate the students 24/7.
- Maintenance of electric water coolers installed at the

campus to provide fresh cold drinking water. The Directorate manages the repair/maintenance of the cooler throughout the year to facilitate the campus community.

- The Directorate supervises the online information desk for admission process at under and postgraduate level for fresh admission at University throughout the year.
- Holding introductory orientation for new entrants at University to brief the facilities of their respective faculties/ departments. The representatives also invited from all Faculties/Departments for answering and questioning for newly admitted students.
- Supervising UAF Students Council comprises on already running Societies/ Club under Faculties/Departments. The students nominated from the said societies for executive body through elections who work as a bridge between students and administration. UAF students Council is the community center of the University serving students, faculty, staff, alumnini, and guests. By whatever form or name, a university students council is an organization offering a variety of programs, activities, services and facilities that, when taken together, represent a well-considered plan for the community life of the University. UAF Students' Council is an integral part of the educational mission of university. The union is a student-centered organization that values participatory decision making. Through volunteerism, its boards, committees and students employment, UAF Students, Council offers first hand experience in citizenship and educates students in leadership, social responsibility, and values.
- Managing Green Youth Movement (GYM) Club under Prime Minister's Youth program, which is a driving force behind

the promotion of eco-consciousness and sustainability practices among the students/community.

- Establishment of Facilitation Center for female day scholars at University.

The Director Students' Affairs also act as Secretary of the Discipline Committee (an appellant and statutory body of the University). Director Students Affairs shall be competent authority to take disciplinary action against students found guilty of misconduct and indiscipline being Chairman of Campus Advisory Committee.



## OFFICE OF THE SENIOR TUTOR

### Tutorial System/Art & Literary Forum

University is the highest seat of learning. This Alma matter has honor to generate highly qualified and motivated Agri-graduate to serve the Nation. University is the mother Institute to build academic as well as co-curricular carriers of the students. For this purpose University have established Senior Tutor Office that consist of 134 tutorial groups and Art & Literary Forum. This system offers a platform to discover, enlighten and polish the hidden capabilities of the students. Each student is being supervised by a Tutor and Co-Tutor. The Tutorial group meetings held regularly each Tuesday in sixth period. The Art & Literary Forum comprises of nine different clubs/societies, like Qiraat & Naat Club, Debating Club, Quiz Club, Society of Agriculture Writers (SAW), Art Club, UAF Media Club, Virsa Music Society (VMS), Character Building Society (CBS), Rotary Club, Young Development Corps (YDC), and Women Voice Forum. Students are encouraged to initiate any positive, constructive activity is in consultation with their Incharge and Co-coordinators, Associate Senior Tutor and Deputy Senior Tutor that help to improve their behavior and sharpen their intellect. This office has an organized set up at university level which has been developed for facilitating the building of positively oriented, fully charged progressive youth who is ready to successfully face all types of challenges in their future life.

The year 2016-2017 was a busy year especially year 2017, Senior Tutor Office organized (5th Lyallpur Art & Literature Festival- in March, 2017) Universities all over Pakistan participated in these events. A number of opportunities were provided to the students



to explore their potentials by exposing them to different events and activities of co-curricular nature (like Qiraat, Naat, Speech Competitions, Debates, MUN's, Quiz Competitions, Singing of Milli Naghmas, Essay Writing, Art and Design Exhibition, Slide Shows and Seminars on Character Building etc.) at Campus as well as at other renowned Institutions and organizations national and international level. Various events of national and religious importance were also celebrated by the office of the Senior Tutor. The activities organized during this year we are Local/National/ Regional (In House/Out Station During year 2016, the students of the University of Agriculture, Participate in more than 20 in house events as well as more than 25 activities out station. The numbers of Award/Shield/Certificate/Prize were won by UAF students during year 2016. Similarly in year 2017, th out station event were more than 26 as well as more than 15 events organized at UAF and win different prizes. This office (Senior Tutor Office) is disseminating the soft image of university at local/Regional/ National levels.

## **OFFICE OF THE PRINCIPAL OFFICER (HOSTELS)/CHIEF HALL WARDEN**

The Principal Officer (Hostels)/Chief Hall Warden exercises all financial and Administrative powers of the Principal Officer in respect of Hostel Administration.

### **Residential Facilities**

There are twenty-six Residential Halls which provide reasonable accommodation for 5413 male and 4007 female students. These are Kissan, Hailey, Tariq, Ayub, Hashmi, Faisal-Kashmir, Teepu, Qazzafi, Sir Syed, Manji and Liaqat Halls for male students and Fatima-tuz-Zahra (Block-A), Fatima-tuz-Zahra (Block-B), Khadija-tul-Kubra, Amina, Zainab, Ayesha Siddiqa, Kahkashan-1, Kahkashan-2, Afzal & Fateh halls for female students, and all of these allocated at University Campus. Five newly constructed residential halls namely Iqbal, Qasim, Khalid, Arinc and Erdogan Hall provide accommodation facilities to the students at PARS.

The Chief Hall Warden assisted by two Wardens (one for females on main campus & one for PARS Campus for males, three Associate Hall Wardens at University Campus and one Deputy Warden at PARS, hold supervisory charge of Residential Halls. Each hostel is in the charge of a Hall Superintendent assisted by two-four Assistant Superintendents and a Munshi. Hall management alongwith committees of the students take care of routine hostel matters and general cleanliness in the halls. Excellent law and order situation is maintained in hostels through strong coordination and cooperation of the Hall Senate. Provision of peaceful atmosphere conducive for academics, scientific work

and personality development is mandate of the Hall Senate. It arranges annual functions like intra and inter-hall cleanliness competitions, annual indoor and outdoor games, celebrations of Pakistan and Independence days to augment the spirit of adorns and ownership.

All hostels are provided with appropriate living amenities modern living facilities including daily News Papers, telephone, LCDs (32 inches) & indoor games in common rooms, mosques, kitchens, dining halls, canteens and fruit shops. In addition, each hostel has internet facility. The mosques are carpeted and furnished with Sui-Gas heaters and air coolers. There is 24-hour water supply in all the residential halls. Sui Gas geysers have been provided for hot water in bathrooms during winter season, R.O plants have also been installed to provide good quality drinking water in each hostel. Turbines on specific points have been installed to provide sweet drinking water round the clock. To enhance the concept of self service, automatic washing machines in laundry and full-size freezers, ovens and microwaves in kitchens have been provided in each female hostel.

Mess in each hostel is operated through contractors which are selected through open bid to provide quality food at economical rates by maintaining the hygienic standards. The cutlery used and the behavior of personnel serving in mess is strictly watched to avoid any undesirable event.

An intercom facility is available in each hostel to remain in contact with main telephone system for any emergency or other event. Mounting of extra ceiling fans in rooms and supplementary lighting in the lawns and terraces enable students for in-as well as out-door studies in summer.

Playgrounds/parks are attached with each hostel for student's outdoor games. To promote sports activities among the female

students, a high standard basketball court and a gymnasium hall have been provided in Khadija-tul-Kubra Hall. These facilities will be extended to other female hostels in future. A state-of-the-art digital library and a modern gym are near to completion with other amenities as well.

A modern state of the art hostel Fatima tuz Zahra Hall Block-A & B with a residential capacity of 1030 students has recently been added for female students.

Two hostels one each at main camps and PARS are also near to completion, and will add to dilute the accommodation problem of 1700 students.

The construction of new hostels, repair of existing and construction of new bathroom blocks in existing halls as per standards is under way. The residential halls are regularly visited by the higher authorities of the University. The problems are discussed with students and are instantly resolved.

The sanctity of all residential students of the university is observed by following well prescribed rules and procedural setup.



## FOREIGN STUDENTS' ADVISOR

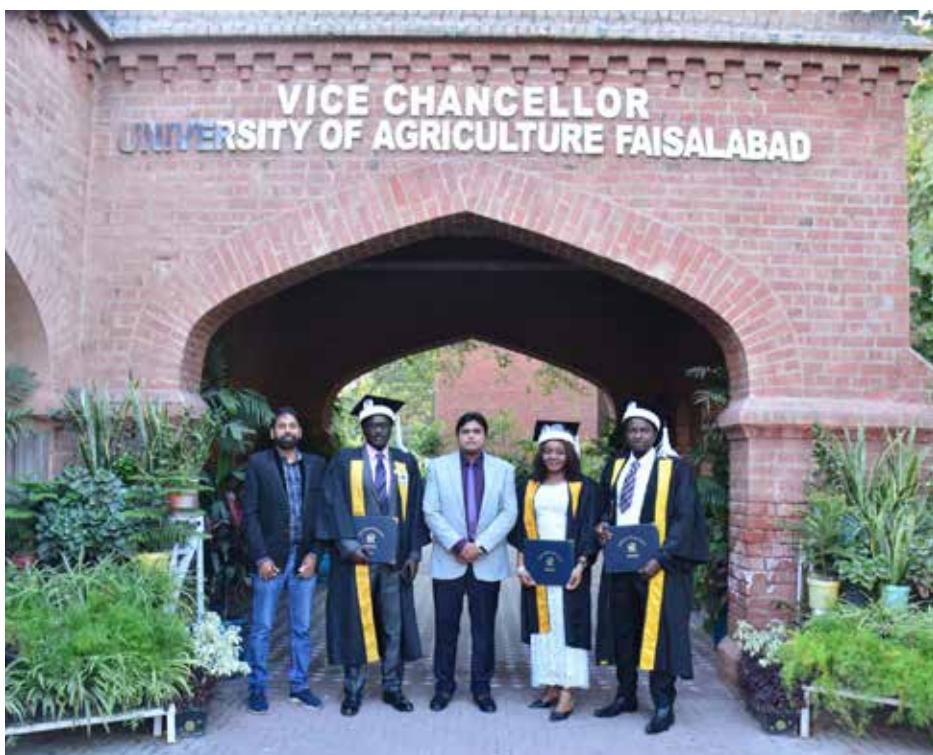
### GUIDELINES FOR FOREIGN STUDENTS FOR ADMISSION AT UAF

The HEC, Islamabad Pakistan also announced some scholarship for the foreigner students in Pakistani University every year and the Self-Finance Scheme aims to assist foreign students with educational aspirations in Pakistan. A limited number of seats in the disciplines of B.Sc.(Hons), M.Sc. and postgraduate programme at University of Agriculture, Faisalabad have been allocated in session 2019-20 for foreign citizens with an HSSC or equivalent degree.

The HEC and International funded scholarship list can be visit at the website of the HEC [www.hec.edu.pk](http://www.hec.edu.pk)

### OBJECTIVES

- To encourage expatriate Pakistanis to stay connected with their mother country, and foreign nationals to learn about Pakistani culture and society
- To encourage knowledge-sharing with friendly fellow developing countries
- To improve relationships with the international community
- Foreign Scholarships and self-finance increase the Pakistani foreign reserves



**ELIGIBILITY CRITERIA**

1. The applicant must hold a foreign nationality at the time of application and admission.
2. The applicant must have passed higher secondary school or the equivalent with a minimum of 45%

**HOW TO APPLY**

Foreign nationals may submit their applications online at the following website [www.uaf.edu.pk](http://www.uaf.edu.pk)

**NOTE:** Only "Submitted" application forms will be processed through Foreign Student Advisor.

**TERMS & CONDITIONS**

1. The following documents will be required after provisional selection:
  - a. Certificates / Marks Sheet of HSSC / equivalent examination attested/verified by IBCC.
  - b. Equivalence Certificate from Inter Board Committee of Chairmen (IBCC) Islamabad where applicable
  - c. "Verification of Foreign Passport" by the concerned Embassy in Pakistan must be submitted in sealed envelope.
  - d. Recent Photographs (should be pasted at each form).
  - e. Nomination letter or original NOC of concerned Embassy for studying in Pakistan

2. Selection of the students against the seats allocated to foreign students will be made be determined by UAF.

**PROCEDURE OF ADMISSION**

The Higher Education Commission Islamabad also aims to facilitate foreign students with all administrative aspects of their application and study in Pakistan including applying to universities, obtaining a Non-Objection Certificate (NOC), and securing a visa. Please note the following instructions to apply to professional programs as foreign national.

Foreign nationals applying under the Self-Finance Scheme can apply at UAF directly and must apply to inform the HEC Islamabad, Pakistan.

**APPLICATION INSTRUCTIONS:**

1. The foreign applicant must apply directly to UAF. The university will then send a copy of the acceptance letter to the HEC, which will then confirm its receipt and pass on an endorsement to the Ministry of Interior.
2. The student must then apply for a visa with a Pakistani Embassy or Consulate in their country. She or he must submit the following documents:
  - i. Application Form (Student Visa Form)
  - ii. Photocopy of passport
  - iii. Photograph
  - iv. All relevant transcripts, diplomas, and other educational documents
  - v. Acceptance letter from the university applied to

3. The Pakistani Embassy or Consulate abroad will then forward the complete application to the Ministry of Foreign Affairs, Islamabad, for further processing.
4. The Ministry of Foreign Affairs will forward the application to the Ministry of Interior for security clearance. The Ministry of Interior will consult with the Ministry of Education and Health and the Higher Education Commission in this process. It must complete the clearance process within four weeks, and submit its judgment on the matter to a) The HEC and b) The Ministry of Foreign Affairs.
5. The HEC must then notify the concerned university and Ministry of Health of the decision by email.
6. The visa, once issued, must be renewed annually, adhering to the same security clearance process.

#### **VISA RENEWAL**

1. The UAF bears the responsibility of:
  1. Verifying the Visa Extension Form
  2. Issuing a Bona Fide Student Certificate
  3. Recommending whether or not to extend the visa
2. The student must submit these documents to the concerned Passport Office (or mail to the Pakistani Embassy or Consulate, if living abroad), visa extension.

The HEC, Islamabad Pakistan also announced some scholarship for the foreigner students in Pakistani University every year and the Self-Finance Scheme aims to assist foreign students with educational aspirations in Pakistan. A limited number of seats in the disciplines of B.Sc.(Hons), M.Sc. and postgraduate programme at University of Agriculture, Faisalabad have been allocated in

60

session 2025-26 for foreign citizens with an HSSC or equivalent degree.

The HEC and International funded scholarship list can be visit at the website of the HEC [www.hec.edu.pk](http://www.hec.edu.pk)

#### **OBJECTIVES**

- To encourage expatriate Pakistanis to stay connected with their mother country, and foreign nationals to learn about Pakistani culture and society
- To encourage knowledge-sharing with friendly fellow developing countries
- To improve relationships with the international community
- Foreign Scholarships and self-finance increase the Pakistani foreign reserves

#### **ELIGIBILITY CRITERIA**

1. The applicant must hold a foreign nationality at the time of application and admission.
2. The applicant must have passed higher secondary school or the equivalent with a minimum of 45%
3. The candidate must have English Proficiency letter (MIC letter) from previous school/college or institute

#### **HOW TO APPLY**

Foreign nationals may submit their applications online at the following website [www.uaf.edu.pk](http://www.uaf.edu.pk)

NOTE: Only "Submitted" application forms will be processed through Foreign Student Advisor.

**TERMS & CONDITIONS**

1. The following documents will be required after provisional selection:
  - a. Certificates / Marks Sheet of HSSC / equivalent examination attested/verified by IBCC.
  - b. Equivalence Certificate from Inter Board Committee of Chairmen (IBCC) Islamabad where applicable
  - c. "Verification of Foreign Passport" by the concerned Embassy in Pakistan must be submitted in sealed envelope.
  - d. Recent Photographs (should be pasted at each form).
  - e. Nomination letter or original NOC of concerned Embassy for studying in Pakistan
2. Selection of the students against the seats allocated to foreign students will be made be determined by UAF.
  - a) International student may approach the Pakistan Mission/embassy/consulate in your country along with this provisional letter of admission and relevant documents for grant of the student visa, wherever applicable
  - b) During the time of admission you are advised to submit the authenticated residential proof of documents (passport or citizenship card) otherwise the provisional admission granted would be cancelled.
3. You are required to report with the following original documents/certificates and also one set of Xeroxed copies.
  - I. Citizenship, passport and visa (whichever applicable)
  - II. 4 passport size photographs
  - III. Xerox copies of all certificates and mark sheets

starting from 10th grade (or equivalent) mark sheet/ statements

- IV. Transfer/ migration certificate issued by the school/ college last attended
- V. A medical certificate from an authorized medical practitioner regarding your fitness to undergo the course.

**PROCEDURE OF ADMISSION**

The Higher Education Commission Islamabad also aims to facilitate foreign students with all administrative aspects of their application and study in Pakistan including applying to universities, obtaining a Non-Objection Certificate (NOC), and securing a visa. Please note the following instructions to apply to professional programs as foreign national. Foreign nationals applying under the Self-Finance Scheme can apply at UAF directly and must apply to inform the HEC Islamabad, Pakistan.

**Note:**

- If any certificate is in a language other than English, an English translated version of that certificate attested by competent authority should be produced compulsorily.
- Appearing candidates must secure requisite percentage of marks for confirmation of admission.
- Attested copies (two of each of the above certificates/ Documents are to be brought at the time of reporting to the institution/college. Candidates must keep sufficient number of Xerox copies of mark sheets and other certificates/ documents for their future use, if any, since all the original certificates submitted to the institution/

college at the time of admission may be retained by the institution/ college till the completion of the course of study.

1. Please also note that no candidate will be admitted in absentia. In case you fail to produce any original certificate in support of your application form, you will not be admitted to the course/program. Further, your admission can be cancelled at any stage if it is found that a false or incorrect statement was made or fraudulent means were used for admission.
2. Unauthorized use of this offer letter or any kind of impersonation will be considered a penal offence along with cancellation of the offer. Please acknowledge receipt of this letter by return post or e-mail at [fsa@uaf.edu.pk](mailto:fsa@uaf.edu.pk).

## APPLICATION INSTRUCTIONS

1. The foreign applicant must apply directly to UAF. The university will then send a copy of the acceptance letter to the HEC, which will then confirm its receipt and pass on an endorsement to the Ministry of Interior.
2. The student must then apply for a visa with a Pakistani Embassy or Consulate in their country. She or he must submit the following documents:
  - i. Application Form (Student Visa Form)
  - ii. Photocopy of passport
  - iii. Photograph
  - iv. All relevant transcripts, diplomas, and other educational documents
  - v. Acceptance letter from the university applied to

3. The Pakistani Embassy or Consulate abroad will then forward the complete application to the Ministry of Foreign Affairs, Islamabad, for further processing.
4. The Ministry of Foreign Affairs will forward the application to the Ministry of Interior for security clearance. The Ministry of Interior will consult with the Ministry of Education and Health and the Higher Education Commission in this process. It must complete the clearance process within four weeks, and submit its judgment on the matter to a) The HEC and b) The Ministry of Foreign Affairs.
5. The HEC must then notify the concerned university and Ministry of Health of the decision by email.
6. The visa, once issued, must be renewed annually, adhering to the same security clearance process.

## Visa and Immigration Guidance:

Receive an Offer Letter: Student should first apply and get accepted by a recognized educational institution in Pakistan. Once you receive an offer letter or admission confirmation from the institution, you can proceed with the visa application.

1. Select the Type of Visa: Determine the type of study visa you need. In Pakistan, this is typically a "Student Visa" (also known as a "Type D Visa").
2. Gather Required Documents: Collect all the necessary documents for your visa application. These may include:
3. Valid passport with at least 6 months of validity beyond your intended stay.
  - Visa application form (available on the Pakistani embassy/consulate website).
  - Two recent passport-sized photos.
  - Original offer letter or admission confirmation from

- the Pakistani educational institution.
- Proof of sufficient funds to cover your tuition fees and living expenses in Pakistan.
- Police clearance certificate from your home country.
- Medical certificate, including a negative COVID-19 test certificate.
- Proof of accommodation in Pakistan.
- Travel itinerary.

**Visa Application:**

- Submit your visa application and all required documents to the nearest Pakistani embassy or consulate in your home country. Pay the visa fee, and keep the payment receipt.
- Interview (if required): Some embassies or consulates may require you to attend an interview as part of the visa application process. Be prepared to answer questions about your study plans, financial situation, and other relevant details.
- Wait for Visa Approval: After submitting your application, you will need to wait for your visa to be processed. Processing times may vary, so be sure to apply well in advance of your intended travel date.
- Visa Issuance: If your visa is approved, you will receive a visa sticker in your passport.
- Travel to Pakistan: Once you have your visa, you can make travel arrangements to Pakistan. Ensure you have all your important documents, including your passport with the visa, on hand when you travel.

- Registration with Local Authorities: After your arrival in Pakistan, you may need to register with local authorities or the educational institution, as required by Pakistani law. Your institution should guide you on this process.
- Visa Extension (if needed): If your course of study is longer than the initial visa duration, you can apply for a visa extension through the Pakistani authorities.
- It's essential to check with the Pakistani embassy or consulate in your country for the most up-to-date and country-specific visa requirements and procedures. Visa rules and requirements can change, so it's important to stay informed and follow the guidelines provided by the relevant authorities.

**The UAF bears the responsibility for visa extension:**

- Verifying the Visa Extension Form
- Issuing a Bona Fide Student Certificate
- Recommending whether or not to extend the visa
- The student must submit these documents to the concerned Passport Office (or mail to the Pakistani Embassy or Consulate, if living abroad), visa extension.

## **DIRECTORATE OF ACADEMICS AND TEACHING RESOURCE CENTER**

### **Mission**

Our mission is to facilitate the faculty members of UAF in ensuring a learning experience that is rigorous, outcome based and relevant to the need of stakeholders. We are always aiming to improve and update the curriculum, facilities and technology, so that the education programs of UAF emphasize the enhancing learning skills of the student.

### **Activities**

#### **Learning Management System (LMS)**

Learning Management System (LMS) was introduced to achieve quality of education, applying variety of teaching-learning strategies and using appropriate distance delivery modes, access to teaching literature, online attendance, assignments and submission of results.

#### **Faculty Orientation Program**

This activity undertaken to enhance the professional skill of the young and newly appointed teachers using modern techniques. Furthermore, it improves the communication skills of the teachers with the students in the class room, as well as research project management in the allocated budget and prevalent circumstances.

### **Teaching Assistantship**

Teaching assistantship for one semester after the completion of his/her course work has been deemed mandatory for all Ph.D. students in UAF since February 2015. All the teaching departments/institutes notify the names of TAs in each course and intimate to the Director Academics. The teaching departments/institutes make arrangements for the maintenance of attendance register. The TAs assist instructor/supervisor in teaching practical and theory of undergraduate courses, to evaluate examinations, assignments, and record grades. Prepare course material under the guidance of faculty members, upload course material online and also maintain online attendance of respective courses. After successful completion of TAship, the Ph.D. student is awarded with a certificate for rendered services by the Director Academics.

### **Large Class Management**

Module System was introduced for management of basic courses enrolled by large numbers of students. Audio/visual equipped Lecture Theaters have been developed with the basic aim to use expertise from the teacher respective to course content.

### **Massive Open Online Courses (MOOCs)**

Massive open online courses through have been developed to cope with rapid increase in population, growing cost of on-campus courses, social and institutional problems of people desiring for higher education.

## **Hybrid Teaching System**

Hybrid and blended teaching system is introduced for different courses which employ a mixture of online and face-to-face activities. Hybrid instruction refers to classes where there is a carefully planned blend of both traditional classroom instruction and online learning activities.

Revision of Scheme of Studies/ Revision of Courses of All Degree Programs

As per SOPs provided by HEC, the UAF revises scheme of studies and course contents every 3 years on a regular basis according to the HEC undergraduate Policy.

## **Collaboration with Academics Without Boarder (AWB)**

The University of Agriculture Faisalabad (UAF) is engaged in a collaboration with Academics without Borders (AWB), with a focus on Outcome based education, which involves enhancing teaching and learning across the institution.



## DIRECTORATE OF SPORTS

University of Agriculture Faisalabad provides excellent facilities to meet the indoor and outdoor requirements of sports for the students at campus. The Directorate of Sports is responsible for the proper training of the students for different games. This also helps students for keeping physical fitness.

Almost all popular games and sports of Pakistan are played at the University of Agriculture, Faisalabad. For this purpose; spacious lush green play fields are available at campus. The Swimming Pool, Riffle Shooting Range, Athletics Tracks, Squash Courts, Lawn Tennis Courts, Handball Court National Standard Metallic with floodlights, three Basketball Courts one of them is opposite to Liaqat Hall, one near Squash Courts and one in Khadija-Tul-Kubra Hall for Girls at the campus. The Gymnasium with equipments and a Stadium especially attract the attention of sportsmen.

A separate Sports Complex for Female students is under construction. Many of our sportsmen have achieved International repute in various games. Sports and games are compulsory for all male and female students of the University. Facilities for all the games, approved by the higher Education Commission are available on the Campus.

Sports activities calendar is approved as under:

1. Inter Halls Sports Competition	Mid of October 2025
2. Host inter universities competition	as per HEC schedule
3. Participation in HEC sports	as per HEC schedule
4. TGM mega group sports gala	1 <sup>st</sup> -2 <sup>nd</sup> week of Feb. 2026
5. International of peace through sports	6 <sup>th</sup> April, 2026



## LIBRARY AND BOOK BANK

- **TIMINGS**

Monday-Thursday	08:00 am – 06:00 pm
Friday-Saturday	08:00 am – 04:30 pm

- **COLLECTION**

1. 165,000 books, journals and theses approximately
2. 2,000 plus HEC recommended e-books in Agriculture, Food Sciences, Basic Sciences, and Social Sciences

- **DATABASES**

1. American Society for Testing and Materials (ASTM)
2. Emerald Insight
3. Institute for Operations Research & Management
4. OVID: Medicine, Nursing and Health
5. ScienceDirect, Elsevier
6. SpringerLink
7. Taylor & Francis (T&F) Online
8. Wiley Online Library



## SECTIONS

### Ground Floor:

- Fresh Arrival
- Reading Hall
- Digital Library
- Reference Section
- Photocopy Shop
- Acquisition Section
- French Language Classroom
- Faculty Lounge
- Binding Section

### Upper Floor:

- Book Bank
- Urdu Literature
- Theses Section
- Journals Section
- PhD Section
- Endowment Fund Secretariat Corner
- Newspapers Section

## SERVICES

1. Reference & information services
2. Reading & research services
3. Information & digital literacy sessions
4. Circulation services
5. Book Bank services
6. UAF's Authors books published by EFS on rent
7. EFS books for sale on no profit, no loss basis
8. English Access Scholarship Program in collaboration with

UAF Community College (PARS)

9. French language classes in collaboration with National Institute of Food Science and Technology (NIFSAT)

## FACILITIES

1. Reading facility for 1,000 students at a time
2. Centrally air-conditioned environment at Ground Floor
3. Study carrels for Ph.D. scholars
4. Free Wi-Fi and LAN connections
5. Online Catalog for searching books
6. Costly books on rent at nominal charges  
@uaflibrary123  
<https://www.facebook.com/uaflibrary123>

## RULES OF LIBRARY FOR STUDENTS

1. Display your student card before entering and inside the library.
2. Keep silence in the library.
3. Do not talk on phone inside the library.
4. Student is responsible for security of his / her personal belongings (i.e. laptops, mobile phones, and bags) in library.
5. Do not leave your personal items unattended (on tables or anywhere else) even if you are in the library's premises.
6. Keep personal belongings with you even if you leave for water, prayer, or washroom etc.
7. For information about your lost items, contact to staff in Library

## Office at / on:

08:00 am – 04:30 pm

Mondays – Fridays

## STUDENTS/STAFF DISPENSARY

University has separate male and female dispensaries to cater the needs of emergency and local minor ailments. Highly qualified and experienced doctors are available at campus.



## ENDOWMENT FUND (EFS-UAF)

The Government of Pakistan and United States of America recalling the close ties in scientific and technological cooperation signed an agreement to create a UAF-US Collaboration for Strengthening Agriculture Academia and R&D Faculty Development, Technology Transfer and Product Commercialization (FDTPC) Program to reap the mutual benefits of agricultural research through joint research projects and exchange of scientists.

Under this agreement, University of Agriculture, Faisalabad (UAF) has established an Endowment Fund. The income generated through investment of the principal funds shall be used for Endowment Fund activities/projects in line with the Pakistan's long term research/development goals of the agriculture sector. The goals focus on food security, poverty alleviation and promoting broad based equitable and sustainable agriculture.

The major objectives of funds are:

- a) To support UAF programs for advanced training in biotechnology, agricultural sciences research, technology transfer and product commercialization.
- b) To strengthen faculty and support R&D activities of UAF.
- c) To support similar programs with other institutions of higher learning, private sector, not-for profit organizations, and domestic as international organizations.
- d) To encourage increased cooperation among scientists conducting agriculture-related research at universities in Pakistan and the United States of America.

## QUALITY ENHANCEMENT CELL (QEC)

The QEC was established in 2004 at the University of Agriculture Faisalabad in accordance with the guidelines of the Higher Education Commission (HEC). Since its establishment, the QEC has been actively involved in raising the quality of education across all degree programs at main campus and constituent colleges. The QEC is involved in capacity building of faculty, staff and students, facilitation in institutional self-assessment process and surveys related to human resource development. The QEC scrutinizes Self-Assessment Reports (SARs) for degree programs on an annual basis and ensures the implementation of SARs evaluation outcomes. The QEC is also responsible for checking similarity (plagiarism) in student synopsis and thesis. Furthermore, the QEC at UAF liaisons and facilitates evaluating/accreditation agencies for degree accreditation or for ranking purposes.

### VISION

To elevate UAF to the status of a world class institution for teaching, research, development and innovation by contributing effectively to maintain the highest standards of education in agriculture and allied sciences.

### MISSION

The mission of the Quality Enhancement Cell, UAF is to improve the standard of education in the areas of agriculture, veterinary sciences, agricultural engineering along with allied fields and to integrate the concept of quality assurance in education with enhanced levels of international compatibility through capacity building.

### OBJECTIVES

- To build capacity and enhance standards of quality education at UAF.
- To analyze and review the quality standards by auditing academic standards and quality of teaching, learning and management across all fields of education at UAF.
- To provide guidance in the development and implementation of internal and external quality assurance procedures and practices.
- To ensure that the quality of academic programs at UAF meet the standards expected by stakeholders.
- To facilitate development of a culture of continuous quality improvement to achieve academic excellence and ethical values.
- To promote public confidence in the quality education and research conducted at UAF.



## OFFICE OF RESEARCH INNOVATION & COMMERCIALIZATION (ORIC)

The Office of Research, Innovation & Commercialization (ORIC) since its inception in 2011(transformation of Directorate of Research into ORIC) channelizes the postgraduate, commissioned, industrial collaborative and funded research from diversified sources which leads to innovation and commercialization. The ORIC is spear heading asa very vibrant office in university for enhancing academic and applied research quality, engaging students and faculty for taking up funded R&D projects, transforming research outcomes into impactful technologies, practices/ goods and services, providing liaison between faculty and industry, technology transfer and commercialization/entrepreneurship of innovative research.

### VISION

To develop, expand and manage the research programs and to link research activities to the educational, social and economic priorities of the university and its broader community. ORIC is also aimed at assuring quality of research of highest international standards and advances the stature of the university among the world's best research institutions.

### MISSION

- Supporting the university's strategic research directions and policies.
- Promote UN-SDGs commitments of zero hunger, food security, gender mainstreaming & climate change.

- Improving recruitment and retention of foreign faculty and research staff.
- Improving integration of research, education and skill development and community services at all levels of the university.
- Improving translation of research into the public benefit.
- Strengthening university, industry and Government relationships.
- Transforming concepts in to impacts by promoting entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy.

### PROGRAMS AT ORIC, UAF

- HEC Funded Ph.D. Scholarships and other initiatives
- Research Projects from national and international donors
- Promotion of research through Partial Research Support
- Interim Placement of Fresh Ph.D. (IPFP) Program
- Travel grants and grants for workshops/seminars/conferences/symposia
- Facilitation in Outreach activities extended by the faculty members
- Ensure submission of authentic data for University Ranking locally and globally
- Commercialization of Innovative Research through Business Incubation Center(BIC)
- Patents, Trade Marks and Varieties Registration
- Research publications and support to Scientific Journals
- National and International Internship Program
- Diagnostic facilities through Central Hi-Tech Lab and other labs

- Functioning as Institutional Bioethics and Biosafety Committee Secretariat
- Internal Monitoring and Evaluation of ongoing research activities
- Provision of research claims for promotion and other incentives
- Technology displays at national and international level
- Managing Commissioned Research/ Consultancy services provided by UAF researchers under UAF-Commercialization Policy
- Incentivizing the Faculty members for patenting, variety registration & other novelties
- National and international research liaisons



## **DIRECTORATE OF BUSINESS INCUBATION CENTER (BIC)**

The Business Incubation Center (BIC), University of Agriculture Faisalabad (UAF), is dedicated to fostering entrepreneurial mindset among students, with a special emphasis on agripreneurship to address challenges in Pakistan's agricultural sector. BIC UAF acts as a catalyst for innovation by providing mentorship, training, and funding opportunities to aspiring entrepreneurs. Notable initiatives include the Student Startup Business Center (SSBC), which empowers students to transform their ideas into impactful startups, and the development of the STZA Agri-Tech Park, designed to advance agricultural technologies. BIC UAF also supports faculty-led startups, facilitates access to funding programs like the Prime Minister National Innovation Award, and collaborates with national and international stakeholders to strengthen the entrepreneurial ecosystem. Through these efforts, BIC UAF is nurturing a generation of innovators committed to sustainable development and economic growth.

## DIRECTORATE OF PUBLICATIONS

Directorate of Press & Publications, University of Agriculture Faisalabad is an index of the University and responsible for overseeing the planning, production and dissemination of university publications that promote academic, research and outreach activities. The Directorate consists of two components:

- (i) Office of University Books & Magazines (OUBM)**
- (ii) University Press**

### OFFICE OF UNIVERSITY BOOKS & MAGAZINES (OUBM)

OUBM carries out a wide array of publication-related tasks such as:

- Publishing University Periodical for students, researchers and farmers (Quarterly Zarai Digest)
- Publishing students magazine Kisht-e-Nau and UAF Alumni number "Istara"
- Development and Printing of Educational and Informative Materials (Books, Manuals, Reports, Pamphlets and Brochures etc.)
- Institutional Publications (Annual Reports, Newsletters and Campus News)

### UNIVERSITY PRESS

The University Press plays a vital role in the dissemination of knowledge, research and institutional communication. Its key responsibilities include:

1. Printing and Publishing
2. Designing and Layout
3. Standardization and Quality Assurance
4. Timely Delivery of Publications
5. Record Maintenance and Archiving
6. Coordination with Office of University Books and Magazines (OUBM)
7. Support for Outreach and Events

### OUTREACH

Office of University Books and Magazines (OUBM) publishes a number of books, digests and magazines in both languages Urdu and English and seems a big source of information for general public through Zarai Digest, University Annual Report, Kisht-e-Nau, Ista'ara, Project Reports, Agri. Pamphlets, Brochures, Leaflets and Special Numbers regarding cash crops, livestock, fisheries, fruits and vegetables, baking, poultry, etc.

### PROMOTIONAL COMPAGAINS

Directorate of Press and Publications facilitates to other departments in designing and printing for their educational compaigns including Student Admissions, Conferences, Seminars and Workshops.

## **DIRECTORATE OF PUBLIC RELATIONS**

The department consists two components:

- (i) Public Relations (PR)
- (ii) UAF FM Radio 100.4

The Directorate of Public Relations plays a central role in protecting the University's image and promoting the achievements of its scientists, scholars and students across print, electronic and social media. It handles official publicity, issues press releases and produces pictorial and video coverage of university events. The department also provides information on university infrastructure, academic programs, admission schedules and other public inquiries.

### **Media Coverage (Print / Electronic / Social Media)**

The Directorate of Public Relations ensures full media coverage for special and routine university events, engaging renowned electronic channels, national/international press and social media. The department provides professional media support, residential arrangements for journalists and facilitates TV channels for expert interviews, documentaries and talk shows with students, researchers and scientists.

### **UAF FM Radio 100.4**

The FM Radio section plans, produces and broadcasts informative and awareness-based content for both the university and the public.

- Scripting/recording educational programs, interviews, public announcements.
- Broadcasting updates on research, student affairs and campus activities.
- Hosting live shows with faculty, alumni and guest experts.
- Providing agricultural guidance and public service messages, especially for farmers.
- Collaborating with departments to highlight events and initiatives.

### **Record-Breaking Digital Campaign**

During the UAF Admission Campaign 2025–26, Directorate of Public Relations achieved the highest-ever reach, shares and engagement on social media through pictorial publicity, professional video promos, reels and student-focused content. The campaign strengthened industry, academia Minister and community linkages.

### **Event Coverage**

The Directorate of Public Relations provided comprehensive coverage for convocations, seminars, expos, policy visits and campaigns. Events were amplified via live streaming, photography, reels and FM Radio broadcasts.

**Historical Content Creation**

- Produced documentaries on UAF milestones and personalities.
- Archived audio/video of lectures, speeches and events.
- Integrated historical content into fundraising, alumni outreach and student orientation.

**Hosting UAF Events**

The Directorate of Public Relations organized flagship academic/research exhibitions, national seminars, career fairs, innovation expos, sports galas, cultural festivals and international delegations. National/international days were celebrated with themed activities and outreach initiatives.

**Awareness Campaigns**

Launched targeted campaigns on agriculture, food security, rural development and public health. Media was engaged to highlight specific drives, such as the wheat campaign.

**Prime Minister & Chief Minister Citizen's Portals**

Acting as focal person, Directorate of Public Relations handled all portal complaints, liaising with relevant offices to ensure timely resolutions. Feedback was used to improve procedures and remove operational bottlenecks.

**Right to Information Act Compliance**

The Directorate of Public Relations processed public requests under the Punjab Transparency and Right to Information Act, 2013, collecting information from relevant offices and responding within legal timeframes.

**Audio-Visual Lab**

Equipped to produce high-quality documentaries on research, academics, co-/extra-curricular activities and funded projects.

**Event Management & Documentaries**

Organized seminars, conferences and special lectures on national priorities. Produced documentaries highlighting UAF-developed technologies for farmers and the public.

**Admission Advertisements**

Created admission documentaries for UG/PG programs to guide prospective students. Coordinated with DGPR for ads related to admissions, jobs, tenders and other notices, managing the DGPR online portal.

The PR Directorate continues to strengthen UAF's visibility, credibility and outreach nationally and internationally through innovative media strategies, impactful campaigns and professional event management.

## DEPARTMENT OF IT RESOURCE CENTER AND DATA BANK

### Summary of UAF IT Initiatives and Achievements

The University of Agriculture Faisalabad (UAF) has made substantial advancements in its IT infrastructure to support teaching, research, and administrative functions. Central to these efforts is the Information Technology Resource Center and Data Bank (ITRCDB), which has modernized the university's operations, ensuring seamless connectivity, efficiency, and a global presence.

#### IT Infrastructure and Network Development:

##### 1. Campus-Wide Network Expansion:

- UAF has expanded its network from 400 nodes in 2004 to over 2800 nodes, establishing a robust gigabit network using fiber optics.
- High-speed internet (2.6 Gbps) is available across all academic, administrative, and residential areas, with plans to further enhance bandwidth to meet increasing demands.
- Wi-Fi capabilities have been deployed across all hostels and sub-campuses in collaboration with the HEC Smart University Project, providing dedicated internet through fiber optics.

##### 2. State-of-the-Art Data Center:

- The data center is equipped with advanced hardware and software, including Huawei UTM, switches, DELL/IBM servers, VMware, and Oracle databases.
- It features robust security measures such as firewalls

- and Unified Threat Management (UTM) systems. The center supports centralized services like email hosting, video conferencing, and virtualized desktop infrastructure.

#### Software and Digital Solutions:

##### 1. Fee and Admission Systems:

- Real-time fee collection is integrated with multiple banks, eliminating verification delays and enabling immediate updates to student portals.
- Online admission processes for undergraduate, postgraduate, and Ph.D. programs automate application handling, merit list generation, and fee submission.

##### 2. Academic Support:

- A Learning Management System (LMS) has been implemented for online classes and exams, particularly effective during the COVID-19 pandemic.
- Digital library systems provide 24/7 access to books, journals, and theses, supported by dedicated labs for male and female students.

##### 3. Student Services:

- RFID-based identity cards are issued with detailed student categorization.
- The hostel allocation system is fully integrated with fee management, maintaining student records from admission to graduation.

#### Research and Innovation:

##### 1. Research Initiative on Internet and Society:

- This initiative focuses on understanding cyberspace and its relationship with business, technology, and social dimensions.
- It supports interdisciplinary research for innovative solutions in agriculture and beyond.

## 2. Technical Development:

- The university is designing real-time indicators and protocols to measure and improve learning capabilities, engagement, and student success.

### Social Media and Communication

UAF actively utilizes platforms such as Facebook, LinkedIn, and YouTube for global engagement and to connect with students and alumni. Dedicated web portals enhance communication and facilitate information sharing.

### Completed Projects and Services:

#### 1. Network Projects:

- Migration to cloud services, including Microsoft Office 365, Exchange, and Microsoft Teams.
- Deployment of VMware-based virtual desktops and surveillance technologies.
- Expansion of hybrid communication systems (analog and IP) for seamless on-campus communication.

#### 2. Software Solutions:

- Development of real-time systems for fee management, admission processes, and academic records.
- Integration of online books, DMCs, degree issuance, and hostel allocation systems.

#### 3. Administrative Enhancements:

- Implementation of pension and account management systems for employees.
- Digital tools for managing student complaints, attendance, and academic records.

### Future Plans:

#### 1. ERP and Campus Management System (CMS):

- Development of modules for financial management, HR, inventory, examination, and library systems.

#### 2. Eco-Friendly Virtualization:

- Migration to cloud-based environments and energy-efficient computing solutions.

#### 3. Enhanced IT Services:

- Deployment of secure data sharing systems, IT asset management tools, and expanded virtual learning environments.

### Conclusion:

UAF's IT initiatives have transformed its operations, establishing it as a leader in innovation and technology-driven education. With a focus on expanding IT infrastructure, software solutions, and research capabilities, UAF is well-positioned to meet future challenges and maintain its reputation as a premier institution.

## DIRECTORATE OF FARMS

The Directorate of Farms manages an extensive network of agro-livestock farms strategically distributed across various locations. These farms serve as vital hubs for providing undergraduate and postgraduate students with hands-on training in agriculture, livestock, poultry, and fisheries disciplines. The Directorate operates under the supervision of a Director, supported by a dedicated team of specialized officers, including the Land Utilization Officer, Superintendent PARS, Incharge Livestock Experimental Stations, Incharge Poultry Research Centre, Incharge Horse Riding Club, and Farm Officers, each responsible for overseeing specific aspects of farm operations.

The Directorate of Farms serves as the backbone for agricultural research and practical education at UAF. It offers essential infrastructure for conducting high-quality field research to postgraduate students and faculty members. These facilities double as demonstration sites for undergraduate students, providing a platform for experiential learning. Moreover, the farms function as Model Farms, promoting advanced agro-livestock practices and serving as knowledge hubs for the farming community. They also contribute significantly to the University's income, while maintaining their primary objective of fostering research and education.

A key feature of the Directorate's operations is its active role in technology transfer through initiatives such as the Kissan Mela. The Directorate produces and supplies high-quality seeds of wheat, paddy, and cotton, which are utilized not only on University farms but are also made available to local farmers on payment. This dual approach ensures both the dissemination of improved

agricultural practices and financial sustainability. The Directorate's farms were established by consolidating smaller research areas previously managed by different departments of the University. Currently, it comprises eight research and demonstration farms:

- Campus Farm
- Youngwala Farm
- Rajawala Farm
- Sidhpura Farm
- G.M. Abad Farm
- PARS
- Ochkera Farm
- Proka I Farm
- Proka II Farm,
- Proka Dairy Farm
- Agricultural Farm at UAF Constituent College Depalpur-Okara
- Agricultural Farm at UAF Constituent College Burewala
- Agriculture Farm at UAF Sub-Campus Hafizabad
- Agricultural Farm at Toba Tek Singh

These farms specialize in various activities, including cash crops, fodder crops, fruit gardens, vegetable cultivation, and medicinal plants. Facilities related to the Faculty of Animal Husbandry and Veterinary Science are housed at the Main Campus and Proka Dairy. Livestock at these facilities includes herds of Brown Buffaloes, Nili-Ravi Buffaloes, Sahiwal cattle, crossbred cattle, horses, sheep, and goats. These animals are integral to teaching and research in livestock management, genetics, feeding, and health.

The Directorate also operates a Horse Riding Club, providing

students with training in horse riding and tent-pegging. Mechanized feeding systems, automated milking, computerized weighing, and improved sanitation facilities are in place to ensure animal welfare. The poultry facilities house indigenous and commercial breeds, offering demonstration and research opportunities for postgraduate students and faculty.

Future developments include the construction of a lecture hall and a dairy park to enhance the learning and visitor experience at the livestock farms. These additions aim to create a more conducive and modern educational environment.

### **STUDENT RESEARCH OPPORTUNITIES**

The Directorate of Farms provides undergraduate and postgraduate students with extensive opportunities for field-based research.

Students actively engage in applied research on various aspects of agriculture and livestock, including crop cultivation techniques, pest management, livestock genetics, feeding practices, and animal health. The farms serve as a real-world laboratory, enabling students to bridge the gap between theoretical knowledge and practical application. These research activities not only enhance the students' academic and professional skills but also contribute to the advancement of sustainable agricultural practices.

In summary, the Directorate of Farms is a cornerstone of the University's mission to provide quality education and research in agriculture and allied disciplines. By integrating modern facilities, hands-on training, and cutting-edge research, the Directorate continues to play a pivotal role in shaping the future of agricultural education and innovation in Pakistan.



## **DIRECTORATE OF EXTERNAL LINKAGES**

The changing role of the universities demands greater connectivity and strong linkages with the local, national, regional and international communities. With the evolving role of the university, the Directorate of External Linkages is becoming an important office to promote national and international collaborations and to develop partnerships with public, private and non-government Institutions/Organizations. This office also has the responsibility to attract international students, placement of university students and faculty in high ranking universities, facilitate interaction between faculty and industry and exert a pull for financing of training, research and development activities of the university by national and international donors, alumni, civil society and agro-based industries. Recent, activities in the directorate have extended manifolds and almost every week the university signs a MoU/LOI, agreement for collaboration and international/national partnership agreement to facilitate teaching, research and development in the University and to bring good to lives of the farming community of the country.

The university has signed 458 MoUs/Lols/agreements with national and international organizations, including development of partnerships with high ranked universities of the world for exchange of staff and students and collaboration in research and development. Significantly UAF is host to projects with Australian universities (Queensland, University of Western Australia, Charles Strut University, Sydney University and ACIAR), US universities (University of California Davis and Riverside, Washington State

University, Pullman, University of Idaho, Moscow, University of Nebraska, Virginia State University, Penn State University, Purdue University, Oklahoma State University, Iowa State University, Ames), Morse Enterprises Limited incorporated Florida, National Clonal Germplasm Repository for Citrus and Dates, Riverside, British universities (University of Bradford, University of Liverpool, University of Huddersfield), Socite Francaise D'Exploration Des Resources Educatives (SFERE), France, Faculty of Organic Agricultural Sciences University of Kassel, Germany, University Degli Studi Di Palermo, Italy, Asian Institute of Technology Bangkok, Thailand, NRC, Cairo, Egypt; South China Botanical Garden, The Chinese Academy of Sciences, Jiangsu, China, Asian Productivity Organization (APO) Japan, USAID Jobs, Monsanto, International Agricultural Research and Training Center, Izmir, Turkey, International Center for Development and Decent Work (ICDD), the University of Kassel, Germany; Nova Scotia Agricultural College and University of Manitoba, Canada; CanakkaleOnsekiz Mart University, Turkey, Ferdowsi University of Mashhad, Iran. The directorate also coordinates with the international organizations for resource and environment conservation in their efforts to make the world a better place for the future generations.

The conscious endeavors for internationalization are showing up. Joint Degree Programs of UAF with Australian, French, US and Canadian Universities is a recent initiative of the Directorate of External Linkages. In addition the Directorate is coordinating the Virtual Education Project of Pakistan (VEPP). The Courses offered by International Faculty have been made available to the university students through Video Conferencing facilities.

**Objectives:**

1. Development of national and international linkages with public, private and non-government institutions/ organizations.
2. To facilitate the faculty/ departments/ directorates/ institutes for promoting R&D activities through external collaborations.
3. Attract and facilitate placement of international students in UAF, placement of university students and faculty in high ranking universities
4. Facilitate interaction between faculty and industry and exert a pull for financing of training, research and development activities of the university by national and international donors, alumni, civil society and agro-based industries.
5. To develop liaison with the alumni and business houses for resource mobilization



## CENTRE OF AGRICULTURAL BIOCHEMISTRY AND BIOTECHNOLOGY (CABB)

The history of the CABB building dates back to 1995 when author drafted its PC-1. Its construction began in 1997, and the author signed the building documents during that time. We were searching for a suitable location in the area where the current computer science building stands. The area was in a neglect and unused. Despite efforts the author could not find space elsewhere, and proceeded with the construction of CABB on the land where it stands now. Given its proximity to the U-road, it was evident that this plot would not remain experimental in the future.

CABB marked the 2nd research center at campus after the establishment of the Water Management Research Center in 1978. The purpose of this center was human resource development in Molecular Biotechnology through diverse degree programs from bachelor's to PhD levels, facilitating allied departments both within and outside the university, and engaging in cutting-edge research programs in agriculture, health, industry, and environment.

areas, such as slums, garbage collection sites, or old buildings, we

have always prioritized the preservation of experimental plots. However, NIFSAT was constructed on precious experimental land. For the sake of CAS, Confucious Institute, and PKNC, we have sacrificed experimental plots, but we have consistently avoided constructing buildings that are less than three stories high to conserve land.

This center contributes to food security through the development

of insect-resistant and herbicide-tolerant sugarcane, highyielding sorghum for fodder, high-yielding stress-tolerant soybean, and short-statured rice. It also contributed to addressing the problems of dieback in Sheesham trees and producing disease-free banana plants.

Although the author served as the founding director of CABB, the author left UAF before its completion. As the luck would have it to come back after 11 years and the center was still incomplete and without needed equipment. I used funds of my mango and citrus projects to buy equipment.



## CENTER FOR ADVANCED STUDIES IN AGRICULTURE AND FOOD SECURITY (CAS-AFS)

The university is academically organized into faculties and departments, along with some teaching institutes, each with its own specialized research focus. In the academic world, it is common for professors to dedicate their careers to a specific knowledge stream, contributing to the continuous growth of knowledge. This focused approach is essential for academic advancement. However, as an Agriculture University, we often face the question of how our research translates into practical solutions for agriculture, rural development, agri-business, and agri-industry.

To address real problems, it is necessary to integrate knowledge from various disciplines. While professors continue to work within their specialized fields, they must collaborate across disciplines to create comprehensive solutions. Globally, this integration is facilitated through multidisciplinary or interdisciplinary centers where faculty from diverse backgrounds work together to solve complex problems or address significant national challenges. With this approach in mind, we established several centers, including the Center for Advanced Studies in Agriculture and Food Security. This center was conceived and established under the Kerry-Lugar Bill, a Pakistan-United States agreement during the Second Afghan War that provided funding for research centers. I had the opportunity to lead these negotiations.

We proposed the establishment of a Food Security Center, and through the negotiation process, it was agreed that food security

is closely linked to water and energy security, given that agriculture is the largest user of both. Consequently, USAID funded three centers: one each for food security, water, and energy. We host the Food Security Center, established in collaboration with the University of California, Davis, and the Washington State University, Pullman, USA.

The center features multidisciplinary chairs in biotechnology, precision agriculture, policy, climate change and outreach. Within these general areas, we have commodity labs and interdisciplinary labs focusing on critical commodities like wheat, cotton, and soybean.

The labs included Precision Agriculture Lab, Transformation Lab, Soybean Lab, Wheat Biotechnology Lab, Cotton Biotechnology Lab, Climate Lab, Bioinformatics Lab, Chickpea Lab, One Health Lab, IVF Lab, and Tree Pathology Lab. The Precision Agriculture lab infrastructure typically consists of state-of-the-art equipment, including drones, satellite imagery systems, sensor networks, and advanced data analytics software. These tools enable researchers to collect vast amounts of data about soil quality, crop health, weather patterns, and more.

Our climate change efforts include establishing a zoning platform for climate adaptation. Additionally, our precision agriculture lab has become one of the largest agri-technology platforms in the country.

The center is housed in a purpose-built building equipped with research labs, teaching labs, training units, an auditorium, a library, and state-of-the-art equipment. The center has been officially recognized as D-8 Food Security Center in 2019.

## CONFUCIUS INSTITUTE (CI)

The Confucius Institute located on our campus is a prominent Chinese building serving as a language and culture center.

The institute's inception traces back to 2010 when I visited Huazhong Agricultural University in Wuhan, where the university president, my close friend, suggested the establishment of a Confucius Institute. This institute, he proposed, would act as a conduit for academic exchange, fostering stronger language skills and networking opportunities. It will facilitate rigorous training for our graduates at Chinese universities, encouraging faculty and student exchanges to facilitate the sharing of knowledge, ideas, and technology transfer.

Following an administrative process through government channels, an agreement was reached between the University of Agriculture, Faisalabad (UAF) and the Xinjiang Agricultural University in Urumqi, China, to establish the Confucius Institute.

Since its establishment, it has served as a hub for various events. The purpose-built building houses classrooms, meeting rooms, language laboratories, rehearsal room, auditoriums, an exhibition hall, Chinese cultural experience hall, library and a multipurpose hall.

The Chinese partners provide instructors for credit courses, as well as language and cultural courses. This fully functional unit fosters cross-cultural understanding and has been instrumental in bridging the gap between our civilizations. The success of the program is evident as thousands of candidates have gone through these programs and found placements in Chinese institutes. A Chinese language course has been introduced in all BS programs of university.

As the program continues to grow, there are plans to set up a China Research Center, focusing not only on language and culture but also on targeted research projects.



## PAK-KOREA NUTRITION CENTER (PKNC)

The Pak-Korea Nutrition Center (PKNC) was established in partnership with Changnam National University in Korea partially funded by KOICA Pakistan and the Government of Pakistan. Through this program on campus, we established partnerships across all provinces, Gilgit-Baltistan, and Kashmir. We initiated a new degree program in human nutrition and dietetics (HND) which has been replicated across the country. We are also working on capacity building of school teachers and lady health workers and conducting

research on value addition and nutritional diversity to address malnutrition, focusing on mothers and children. Most stunting and wasting occurs in the first thousand days of a child, from conception to around two to three years of age. We aim to combine indigenous knowledge with international expertise. We aggressively pursue balanced diet initiatives, nutritional correction, and addressing malnutrition, especially for women and children.



# THE STATUTES AND REGULATIONS RELATING TO THE FIRST DEGREE AWARDED BY UAF

## 1. STATUTES

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's 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 of the Course

- (i) The minimum number of semesters for completing the course for a four years and five years Bachelor degree shall be eight and ten semesters respectively. Provided that in

case a student does not qualify for the award of degree within the minimum period, he/she may continue his/her studies for a maximum of four consecutive semesters beyond which he/she shall not be eligible for enrolment.

- (ii) The medium of instructions and examinations shall be English except in the case of Islamic Studies, which shall be Urdu.

## 3. Duration of Semester

There will be two semesters in each academic year, Winter and Spring of 19 weeks each. The commencement of the semesters is regulated by the Academic Council.

**(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 Study

The schemes of study 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:

<b>S.#</b>	<b>Name of Degree</b>	<b>Credit Hours</b>
1	B.Sc.(Hons.) Agriculture	144 credit hours for a duration of 8 semesters
2	BS Forestry	144 credit hours for a duration of 8 semesters
3	B.Sc.(Hons.) Environmental Science	137 credit hours for a duration of 8 semesters
4	B.Sc.(Hons.) Agricultural & Resources Economics	137 credit hours for a duration of 8 semesters
5	BS Economics	128 credit hours for a duration of 8 semesters
6	BS Sociology	133 credit hours for a duration of 8 semesters
7	Bachelor of Business Administration (BBA)	129 credit hours for a duration of 8 semesters
8	Bachelor of Business Administration (Agribusiness)	132 credit hours for a duration of 8 semesters
9	BS Commerce	138 credit hours for a duration of 8 semesters
10	B.Sc. Agricultural Engineering	136 credit hours for a duration of 8 semesters
11	B.Sc. Food Engineering	135 credit hours for a duration of 8 semesters
12	B.Sc. Textile Engineering Technology	140 credit hours for a duration of 8 semesters
13	B.Sc. Energy Systems Engineering	136 credit hours for a duration of 8 semesters
14	B.Sc. Environmental Engineering	136 credit hours for a duration of 8 semesters
15	Doctor of Veterinary Medicine (DVM)	179 credit hours for a duration of 10 semesters
16	Doctor of Pharmacy (Pharm.D)	202 credit hours for a duration of 10 semesters
17	B.Sc.(Hons.) Microbiology	142 credit hours for a duration of 8 semesters
18	BS Animal Sciences	144 credit hours for a duration of 8 semesters
19	BS Dairy Science	144 credit hours for a duration of 8 semesters
20	B.Sc.(Hons.) Home Economics	142 credit hours for a duration of 8 semesters

<b>S.#</b>	<b>Name of Degree</b>	<b>Credit Hours</b>
21	B.Sc. (Hons.) Human Nutrition and Dietetics	141 credit hours for a duration of 8 semesters
22	B.Sc.(Hons.) Food Science & Technology	138 credit hours for a duration of 8 semesters
23	Bachelor of Fina Arts (BFA)	139 credit hours for a duration of 8 semesters
24	BS Information Technology	140 credit hours for a duration of 8 semesters
25	BS Bioinformatics	139 credit hours for a duration of 8 semesters
26	BS Computer Science	137 credit hours for a duration of 8 semesters
27	BS Software Engineering	140 credit hours for a duration of 8 semesters
28	BS Artificial Intelligence	137 credit hours for a duration of 8 semesters
29	BS Data Science	134 credit hours for a duration of 8 semesters
30	BS Chemistry	141 credit hours for a duration of 8 semesters
31	BS Biochemistry	144 credit hours for a duration of 8 semesters
32	BS Botany	134 credit hours for a duration of 8 semesters
33	BS Physics	136 credit hours for a duration of 8 semesters
34	BS Zoology	132 credit hours for a duration of 8 semesters
35	BS English	124 credit hours for a duration of 8 semesters
36	BS Mathematics	139 credit hours for a duration of 8 semesters
37	BS Statistics	142 credit hours for a duration of 8 semesters
38	BS Poultry Science	144 credit hours for a duration of 8 semesters
39	B.Ed (Hons.)	141 credit hours for a duration of 8 semesters
40	Bachelor of Fashion Design (BFD)	134 credit hours for a duration of 8 semesters
41	BS Pakistan Studies	126 credit hours for a duration of 8 semesters

S.#	Name of Degree	Credit Hours
42	BS Development Studies	129 credit hours for a duration of 8 semesters
43	BS Biostatistics	139 credit hours for a duration of 8 semesters
44	BS (Data Analytics)	130 credit hours for a duration of 8 semesters
45	BS Criminology	133 credit hours for a duration of 8 semesters
46	BS Biotechnology	129 credit hours for a duration of 8 semesters

## II. REGULATIONS

### ADMISSION REQUIREMENTS

#### 1. Minimum Academic Requirements

i. A candidate seeking admission to the following first degree courses must have passed the examination shown against each course or an examination recognized as equivalent thereto from a recognized Institution of across Pakistan securing minimum marks indicated with each degree excluding 20 marks of Hafiz-e-Quran. These extra marks will be added in the total marks while preparing merit after conducting/qualifying test. He/she also required to qualify entry test conducted by the University for admission to each degree program. Provided that the eligibility requirements may be amended from time to time by the Academic Council:-

S.#	Name of Degree	Academic qualification	Minimum requirement
1	B.Sc.(Hons.) Agriculture	Intermediate Science (Pre-Medical/Pre-Engineering)	45% marks i.e. 495/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
		Three Years Diploma in Agricultural Sciences (DAS)	45% marks

<b>S.#</b>	<b>Name of Degree</b>	<b>Academic qualification</b>	<b>Minimum requirement</b>
2	BS Forestry	Intermediate Science (Pre-Medical/Pre-Engineering)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
		Three Years Diploma in Agricultural Sciences (DAS)	50% marks
3	B.Sc. (Hons.) Environmental Science	Intermediate Science (Pre-Medical/Pre-Engineering)	60% marks i.e. 660/1100
		Intermediate (Pre-Agriculture)	CGPA 2.50/4.00
4	B.Sc.(Hons.) Agricultural & Resource Economics	Intermediate Science (Pre-Medical/Pre-Engineering/ ICS)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
5	BS Economics	Intermediate (Pre-Medical / Pre-Engineering / I.Com / equivalent examination)/FA with Economics	45% marks i.e. 495/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
6	BS Sociology	F.A./F.Sc./A Levels or equivalent examination	45% marks i.e. 495/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
7	Bachelor of Business Administration (BBA)	Intermediate (12 years schooling)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
8	Bachelor of Business Administration (Agribusiness)	Intermediate (12 years schooling)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00

S.#	Name of Degree	Academic qualification	Minimum requirement
9	BS Commerce	Intermediate (12 years of schooling) /equivalent examination	45% marks i.e. 495/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
10	B.Sc. Agricultural Engineering	Intermediate Science (Pre-Engineering)/ Three years DAE in Civil, Mechanical, Auto & Farm Machinery, Auto & Diesel, Mechanical/ Machinery with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
11	B.Sc. Food Engineering	Intermediate Science (Pre-Engineering)/ Three years Diploma of Associate Engineer in Chemical, Food, Mechanical, Food Processing &Preservation Technologies with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
12	B.Sc. Textile Engineering Technology	Intermediate Science (Pre-Engineering)/ Three years Diploma of Associate Engineer in Chemical, Textile and Mechanical Technologies with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
13	B.Sc. Energy Systems Engineering	Intermediate Science (Pre-Engineering)/ Three years Diploma of Associate Engineer in Electrical, Electronics, Mechanical (Power), Telecommunication & Chemical Technologies with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100

<b>S.#</b>	<b>Name of Degree</b>	<b>Academic qualification</b>	<b>Minimum requirement</b>
14	B.Sc. Environmental Engineering	Intermediate Science (Pre-Engineering)/ Three years Diploma of Associate Engineer in Electrical, Civil, Chemical, Petroleum, Petrochemical and Mechanical Technologies with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
15	Doctor of Veterinary Medicine (DVM)	Intermediate Science (Pre-Medical) with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
16	Doctor of Pharmacy(Pharm.D.)	Intermediate Science (Pre-Medical) with securing minimum 50% marks is compulsory in entry test.	60% marks i.e. 660/1100
17	B.Sc.(Hons.) Microbiology	Intermediate Science (Pre-Medical)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.50/4.00
18	BS Animal Sciences	Intermediate Science (Pre-Medical)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
19	BS Dairy Science	Intermediate Science (Pre-Medical)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
20	B.Sc.(Hons.) Home Economics	Intermediate Science (Pre-Medical/ Pre-Engineering)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00

S.#	Name of Degree	Academic qualification	Minimum requirement
21	B.Sc.(Hons.) Human Nutrition & Dietetics	Intermediate Science (Pre-Medical)	60% marks i.e. 660/1100
		Intermediate (Pre-Agriculture)	CGPA 2.50/4.00
22	B.Sc. (Hons.) Food Science and Technology	Intermediate Science(Pre-Medical/Pre-Engineering)	60% marks i.e. 660/1100
		Intermediate (Pre-Agriculture)	CGPA 2.50/4.00
23	Bachelor of Fine Arts (BFA)	Intermediate degree, FA, I Com, ICS, F.Sc (Pre-medical or Pre-Engineering), A Level or equitant degree	
24	BS Information Technology	Intermediate or equivalent examination	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
25	BS Bioinformatics	Intermediate (Pre-Medical/Pre-Engineering)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
26	BS Computer Science	Intermediate Pre-Engineering/*Pre-Medical/ ICS or equivalent examination * Students with Pre-Medical qualification must have to pass deficiency courses of Mathematics of 6(six) credit hours in first two semesters.	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00

<b>S.#</b>	<b>Name of Degree</b>	<b>Academic qualification</b>	<b>Minimum requirement</b>
27	BS Software Engineering	Intermediate with Mathematics	60% marks i.e. 660/1100
		Intermediate (Pre-Agriculture)	CGPA 2.50/4.00
28	BS Arificial Intelligence	Intermediate/12 years schooling/A- Level (HSSC). The students who have not studied Mathematics at intermediate level have to pass deficiency courses of Mathematics (06 credits) in first two semesters	Minimum 50% marks
29	BS Data Science	Intermediate/12 years schooling/A- Level (HSSC). The students who have not studied Mathematics at intermediate level have to pass deficiency courses of Mathematics (06 credits) in first two semesters	Minimum 50% marks
30	BS Chemistry	Intermediate Science(Pre-Medical/Pre-Engineering)/ Three years DAE in Chemical Technology	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
31	BS Biochemistry	Intermediate Science(Pre-Medical)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
32	BS Botany	Intermediate Science(Pre-Medical) or Biology as major subject in equivalent qualification	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
33	BS Physics	Intermediate with Physics & Mathematics as major subject/three years DAE in Electrical/Electronics	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00

S.#	Name of Degree	Academic qualification	Minimum requirement
34	BS Zoology	Intermediate Science(Pre-Medical)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
35	BS English (Language & Literature)	Intermediate/A level having English 200 marks	50% marks i.e. 550/1100 with English 200 marks also securing 50% marks in English
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
36	BS Mathematics	Intermediate with at-least one subject of (Mathematics, Physics or Statistics)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
37	BS Statistics	Intermediate with at-least one subject of (Mathematics, Physics, Statistics, Economics or Computer Science)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
38	BS Poultry Science	Intermediate Science(Pre-Medical/Pre-Engineering)	50% marks i.e. 550/1100
		Intermediate (Pre-Agriculture)	CGPA 2.20/4.00
39	B.Ed. (Hons.)		
40	Bachelor of Fashion Design (BFD)	Intermediate degree, FA, DDM Dress Designing, I. Com, ICS, F.Sc. (Pre- medical or Pre-Engineering), A Level or equivalent	45% marks i.e. 495/1100.

S.#	Name of Degree	Academic qualification	Minimum requirement
41	BS Pakistan Studies	Intermediate /A Levels/ Pre- Agriculture or equivalent	45% marks
42	BS Development Studies	Intermediate (12 years schooling) equivalent examination	2nd division or 45 % marks
43	BS Biostatistics	Intermediate / 12 years schooling / A-Level (HSSC). The students who have not studied Mathematics at Intermediate level have to pass one deficiency course of Mathematics (03 credits) in first two semesters.	45% marks
44	BS (Data Analytics)	Intermediate / 12 years schooling / A-Level (HSSC). The students who have not studied Mathematics at Intermediate level have to pass one deficiency course of Mathematics (03 credits) in first two semesters.	45% marks
45	BS Criminology	Intermediate or equivalent (F.A./ F.Sc. Pre-medical, F.Sc., Pre. Engineering, ICS, I. COM / A. level OR equivalent	45 % marks.
46	BS Biotechnology	F.Sc. Pre-Medical / A-Level (Pre-Medical)	45 % marks.

Provided further that 75% of the admission in the case of B.Sc.(Hons.) Agriculture, B.Sc.(Hons.) Agricultural & Resource Economics and Doctor of Veterinary Medicine on open merit or district merit (where applicable) shall be made from the candidates having rural background, whereas the percentage for urban candidates will be 25. The district of a candidate will be determined from the name and place of School indicated in the Matric Certificate. If the school is situated within the premises of a district headquarter, the candidate will be considered as Urban. The rest of the candidates will be considered as Rural.

#### **ii. Age**

A candidate must not be more than 23 years of age on 1st September of the year of admission provided that after provisional selection, the Vice Chancellor may relax upper age limit in very exceptional cases on the recommendations of the Dean/Director/ Director General/ Head of Constituent College concerned.

**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.

**2. Allocation of seats**

The Academic Council on the recommendations of the Dean/Director/Director General/Head of Constituent College concerned shall allocate seats for admission to first degree courses under various categories.

**3 Authority of Admission**

The following will be the admission authorities for carrying out admission in the degree programs mentioned below offered at main Campus as well as Constituent Colleges:-

S.#	Name of Degree	Admission Authority
1	BS Biotechnology	Director, CABB
2	B.Sc.(Hons.) Agriculture	Dean, Faculty of Agriculture
3	BS Forestry	
4	B.Sc. Agricultural Engineering	Dean, Faculty of Agriculture Engg. & Technology
5	B.Sc. Food Engineering	
6	B.Sc. Textile Engineering Technology	
7	B.Sc. Energy Systems Engineering	
8	B.Sc. Environmental Engineering	
9	BS Animal Sciences	Dean, Faculty of Animal Husbandry
10	BS Dairy Science	
11	BS English (Language and Literature)	Dean, Faculty of Arts & Humanities
12	BS Pakistan Studies	

<b>S.#</b>	<b>Name of Degree</b>	<b>Admission Authority</b>
13	BS Bioinformatics	Dean, Faculty of Sciences
14	BS Computer Science	
15	BS Software Engineering	
16	BS Information Technology	
17	BS Data Science	
18	BS Artificial Intelligence	
19	BS Fisheries & Aquaculture	
20	BS Botany	
21	BS Biochemistry	
22	BS Chemistry	
23	BS Mathematics	
24	BS Physics	
25	BS Statistics	
26	BS Zoology	
27	BS Biostatistics	
28	BS Data Analytics	

S.#	Name of Degree	Admission Authority
29	B.Sc.(Hons.) Agri. & Resource Economics	Faculty of Social Sciences
30	B.Ed. (Hons.)	
31	BS Sociology	
32	BS Development Studies	
33	BS Criminology	
34	BS Economics	
35	Doctor of Veterinary Medicine (DVM)	Dean, Faculty of Veterinary Sciences
36	Doctor of Pharmacy (Pharm.D.)	
37	Bachelor of Business Administration (BBA)	Director, Inst. of Business Management Sciences
38	BBA(Agribusiness)	
39	BS Commerce	
40	B.Sc.(Hons.) Environmental Science	Director, Inst. of Environmental Sciences
41	Bachelor of Fine Arts (BFA)	Director, Inst. of Home Sciences
42	B.Sc.(Hons.) Home Economics	
43	Bachelor of Fashion Design (BFD)	
44	B.Sc.(Hons.) Microbiology	Director, Inst. of Microbiology
45	B.Sc.(Hons.) Food Science & Technology	Director, National Institute of Food Science
46	B.Sc.(Hons.) Human Nutrition & Dietetics	

However, the concerned admission authority may refuse admission to a student without assigning any reason.

#### **4. Deficiency**

If the schedule of courses pursued by a candidate does not provide adequate background for the 1st degree course which he intends to take up, he 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 Dean/Director/Director General/Head of Constituent College concerned.

#### **5. Time for Admission**

The candidates may be admitted at the beginning of the Winter Semester of each academic session. They are required to deposit dues/complete other admission/enrolment formalities within the dates notified by the Dean/Director/Director General/Head of Constituent College, 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 Dean/Director/Director General/Head of Constituent College concerned till such time as it does not conflict with the prescribed requirements of 75% attendance in lectures and practical's of each subject which will be counted from the notified date of commencement of classes for fresh entrants.

Provided that Vice Chancellor may grant admission to candidate(s) against reserved quota whose nomination(s) is received after due date on special circumstances.

Explanation: Enrolment will only be considered completed when UG-I form is submitted with the concerned Dean/Director/Director General/Head of Constituent College. Merely depositing of fee will not serve the purpose.

#### **6. Enrolment**

(i) A candidate admitted to the course shall for so long as he has not completed all the requirements for the degree, enroll himself for each semester subject to the maximum admissible limit of 12 semesters in case of four years degree programs and 14 semesters in case of five year degree programs including terminal summer session, failing which his admission shall stand cancelled.

In case a student discontinues a semester without permission, he may seek re-admission, in the same semester next year with the approval of the Vice Chancellor on the recommendations of the Dean/Director/Director General/Head of Constituent College concerned or in the subsequent year with the permission of the Academic Council, provided that he 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 shall not be eligible for re-admission in future. Provided that the Academic Council may, on the recommendations of the Dean/Director/Director General/ Head of Constituent College concerned, condone the above period in special circumstances to be recorded in writing. Provided that after the first eight semesters of four years degree programs and ten semesters for five years degree programs, 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 and 14 semesters as the case may be. Provided further that the semester meant for Internship as per approved "Scheme of Studies" shall be meant for Internship only.

### **Clarification of Statute 2(i) and Regulation 6(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 of four years degree programs 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. As the minimum duration of five years degree programs shall be 10 and the maximum 14 semesters for completion of degree, therefore, on the above analogy, the students of these degrees shall not be eligible to enroll beyond 14th semester except terminal summer session. Provided further that the semester meant for Internship as per approved scheme of studies shall be meant for Internship only.

- (ii) An application for enrolment on the prescribed form(UG-I) accompanied by the prescribed fee paid receipt, shall be presented by regular students in the Office of the Dean/ Director General/Head of Constituant College concerned on the days notified by the Treasurer's office for the purpose. The date for enrolment with normal late fee will also be announced by the Treasurer's office in the same notification.

Provided that after the expiry of last date with normal late fee notified by the Treasurer's office, the Dean/Director General/Head of Constituant College concerned may within next seven days permit a student for late enrolment on payment of prescribed double late fee.

Provided that enrolment of such students may be allowed by the Vice Chancellor after the expiry of seven days, till the last day of 4th week after the commencement of classes under special circumstances, in individual cases and reasons to be recorded, with double late fee prescribed for this purpose. After 4th week the Vice Chancellor may also consider the request(s) of the students(s) on case to case basis with fine(in addition to double late fee). However, such students would themselves be responsible for consequences(if any) of late enrolment/lecture shortage. The student who could not enroll a semester will be treated as discontinued for 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.

Provided that the Vice Chancellor may allow to defer the fee of any student at any stage on the recommendations of the Treasurer on special circumstances.

**Explanation:**Enrolment will only be considered completed when UG-I form is submitted with the concerned Dean/Director General/Head of Constituant College. Merely depositing of fee will not serve the purpose. However, the Vice Chancellor may allow to submit the UG-1 form on case to case basis after due date on special circumstances(with or without fine, as deemed appropriate).

Vice chancellor may also grant permission to an undergraduate students to deposit University dues/complete enrolment formalities(UG-1) of previous semesters with fine Rs.5000/- on case to case basis.

(iii) **Withdrawal of the course(s):** A student may be allowed to change the course(s) within seven(7) days from the commencement of the semester and to withdraw from a course within five(5) weeks of the commencement of the semester with the consent of the Advisory Committee.

#### **6. (iv) 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) s/he shall have to register for courses of minimum 17 and maximum 27 credit hours for all degree programs.
- b. In two semesters falls before the semester meant for internship, a student may register himself/herself upto 30 credit hours for all degree programs. Provided further that the Dean/Director General/Principal concerned may allow to enroll extra credit hours on the written request submitted by a student well in time upto 34 credit hours subject to condition that he/she will complete his/her degree after enrolment 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. Provided that in case of students of B.Sc.(Hons.) Agriculture who have completed their eight

semesters but have yet to clear their backlog may enroll odd semester course(s) in even semester and vice versa within the prescribed limit of credit hours. This permission will however, be subject to the condition that the course(s) to be enrolled is/are available in the relevant 'Scheme of Studies'.

##### **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 and 10th regular semester for five years degree programs, if a student has yet to qualify fail courses of more than 16 credit hours, s/he 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 thereafter 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 10th, 12th and 14th regular semesters for five years degree programs, a student may enroll fail course(s) only, upto 16 credit hours with the permission of the Dean/ Director/Director General/Head of Constituent College provided that s/he will complete her/his degree programme after that session. In this situation, s/he will not be able to enroll any "D" grade course(s).
- 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 to. A team of 3-4 teachers headed by a senior teacher will teach classes of a course in the summer session.

## **7. Constitution of Advisory Committees**

The Dean/Director/Director General/Head of Constituent College shall constitute Advisory Committees in their respective Faculties/ Institutes/Constituent College to provide adequate counseling and guidance to the students in the selection of their courses and other related matters.

## **8. Number of Courses**

The courses will be numbered to a scheme such as B.Sc.(Hons.) Agriculture 1st and 2nd semester (301-400), 3rd and 4th(401-500) and so on. This number will be preceded by two to four letters indicating the field of study i.e. AGRON-310(Agronomy-310).

## **9. 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' and residential requirements, a student stands ineligible to enroll 'D' grade course(s) for improvement of CGPA even if s/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.

## **10. Examination and Weightage**

- (i) A mid-term examination for one hour duration 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 held 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 five(5) credit course will carry 100 marks. These marks will be divided in accordance with the credit assigned to Theory/Practical of each course.

## **11. Uniformity/Standard in Tests**

In each Department the respective Boards of Studies 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 Board shall be final. The students will be permitted to go through their answer books in the presence of teachers concerned within 3 days before the award list is sent to the Controller of Examinations.

## **12. 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.

### **13. Declaration of Result**

- (i) The teacher concerned shall send the final award list alongwith answer sheet of mid, final and practical examinations in a sealed cover to the Office of the Controller of Examinations within ten(10) days from the termination date of a semester/session.
- (ii) One copy of the award of each subject shall be forwarded to the Chairman of the Department/Dean/Director General/ Head of Constituent College concerned under sealed cover.
- (iii) **Minimum CGPA for continuation of studies:**

At the end of each regular semester/summer session, the result will be notified by Office of the Controller of Examinations. However, at the end of each academic year(Winter, Spring and following Summer Session) a student is required to secure minimum CGPA 1.50 throughout study period for continuation of studies, failing which he/she shall be declared as ceased from University rolls without any notice.

Such student may seek fresh admission in any degree program after ceasing from rolls(only once) during minimum study period, on merit subject to eligibility and fulfillment of other pre-requisites of the respective degree program in which he/she seeking fresh admission. It is clarified that this permission will not be granted after exhausting minimum duration of degree program in which he/she declared ceased from rolls due to low CGPA. During

the semester(s) beyond the minimum duration, the degree will however, be awarded as and when the student has secured minimum CGPA of 2.50, if he/she has completed other pre-requisites.

### **(iv) Calculation of GPA/CGPA:**

GPA/CGPA will be calculated at the end of each semester in accordance with the relevant Regulations.

### **14. 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. Provided a fraction of 0.5 or above marks shall be rounded as 1.00 in theory and practical separately where required by the teacher concerned.

**Explanation:** If a student got 14.5 or above marks in theory, his/ her marks will be rounded of 15. Similarly, if a student got 8.5 or above marks in practical his/her marks be rounded as 9.00

### **15. Grade Point Average**

- (i) If a student appears in midterm examination of enrolled course(s) in a semester but could not appear in final examination under the circumstances beyond his/her control except lecture shortage, may be awarded 'I' grade in the relevant course(s). However, the concerned students should have to intimate the reason(s) for not appearing in writing with documentary evidences, if any, to the concerned teacher who after examining/determining carefully and ensuring genuineness of the reason(s), may forward the result of requisite course(s) with 'I' grade. Such student(s) should appear in examination of the relevant

course(s) without enrolment at the earliest convenience but before commencement of final examination of next semester positively. This facility will be available to the students(s) with in the maximum admissible limit of semesters but 'I' grade will not be awarded in terminal summer. If he/she fails to pass/qualify 'I' grade course(s) or does not appear within the available time frame under any circumstance, the grade 'I' will be replaced with 'F' in the course(s) concerned, automatically.

It is clarified that the above provision of 'I' grade will be applicable in regular semesters of an academic year i.e. Winter and Spring and not for Summer Session.

**(ii) 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 : 2.50

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

(iii) 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.

**16. 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 outside Faisalabad/Toba Tek Singh/Vehari/Okara, with the permission of Dean/Director /Director General/Head of Constituent College concerned may not be counted.
- (ii) The teacher concerned shall send to the Dean/ Director / Director General/Head of Constituent College concerned through the Chairman of the Department, a statement of daily attendance of students in each course, Theory and Practicals separately on the prescribed form. The name of the student who is absent from the classes continuously for a week without prior permission shall be struck off the rolls by the Dean/ Director /Director General/Head of Constituent College concerned. Provided that a student whose name has been struck off the University rolls due to said continuous absence may seek re-admission with the permission of the Dean/ Director /Director General/Head of Constituent College upto the time within which he could complete prescribed attendance requirements in lectures and practicals of each subject separately. If a student fails to do so under

any circumstances, will be treated as discontinued without prior permission of the competent authority and his request for continuation of studies, if received, may be dealt with in accordance with the provisions of relevant Regulations.

**17. Conduct of Examination**

- (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 to be notified by the Chairman of the Department/ Dean of Faculty/ Director, Director General of Institute / Head of Constituent Colleges.
- (ii) All teachers teaching the various sections of a class will set their individual examination papers and submit them to the Department Chairman who shall set the final single paper from the examination papers so submitted by the sectional teachers. The answer books will be marked by the respective teachers individually or collectively as may be determined by the Department's Chairman/Deans/ Director/ Director General/ Head of Constituent College. The Chairman of the Department will arrange the supervision of the examination of the course, marking of the answer books and preparation of award lists.
- (iii) The duration of examination will be 30, 60, 90, and 120 minutes for 1, 2, 3 and 4 credit hours courses respectively.
- (iv) The final paper will consist of 30% objective and 70% descriptive. The descriptive part of the examination will be taken only on the prescribed answer sheet provided by the Office of the Controller of Examinations.
- (v) The midterm and final examination of a course will be conducted/arranged under the supervision of the

Faculty/Department/Institute actually offering the course concerned with the help of the Faculty/Institute/College offering the requisite degree program.

- (vi) 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 Dean/ Director/ Director General/ Head of Constituent College concerned 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 Dean/ Director General/ Head of Constituent College concerned.

The student may however, continue his studies after enrolment in the same semester next year with the permission of Dean/ Director/ Director General/ Head of Constituent College or in the subsequent year but with the permission of the Academic Council on the recommendations of the Dean/ Director/ Director General/ Head of Constituent College concerned. 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 Academic Council may on the recommendations of the Dean/ Director/ Director General/ Head of Constituent College concerned condone the above period in special circumstances to be recorded in writing.

**18. 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.

#### **19. 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.

#### **20. Examination Fees**

University examination fee shall be charged at the rate mentioned under the chapter "Fee, Funds and Other Charges".

## **UAF STUDENTS (DISCIPLINE AND CONDUCT) REGULATIONS, 1978**

#### **1. SHORT TITLE, COMMENCEMENT AND APPLICATION:**

- (i) These Regulations may be called the University of Agriculture, Faisalabad Students (Discipline and Conduct) Regulations, 1978.
- (ii) These Regulations shall come into force with immediate effect.
- (iii) These Regulations shall apply to all students on the rolls of the University, including the Constituent Colleges.
- (iv) A student on the rolls of the University who violates these Regulations shall be guilty of indiscipline and misconduct and liable to disciplinary action being taken against him under these Regulations.

#### **2. DEFINITIONS:**

Unless there is anything repugnant in the subject or context, the expressions used in these Regulations and defined or used in the University of Agriculture, Faisalabad Act, 1973, shall have the meanings assigned to them, respectively, hereunder or in the Act.

- (a) "Authority" means any of the Authorities of the University specified in Section 21 of the University of Agriculture, Faisalabad Act, 1973;
- (b) "Chairman of Department" means head of a teaching Department;
- (c) "Chancellor" means the Chancellor of the University;
- (d) "Competent Authority" means an Officer or Authority of the University competent to take disciplinary action

against a University student guilty of misconduct and indiscipline;

(e) "Dean" means the Chairman of the Board of the Faculty;

(f) "Director" means the head of a teaching Division or a Directorate of the University;

(g) "Discipline Committee" means the Discipline Committee, as constituted under paragraph 11 of the First Statutes appended to the University of Agriculture, Faisalabad Act, 1973, as amended from time to time;

(h) "Faculty" means a Faculty of the University;

(i) "Penalty" means a penalty which may be imposed under these Regulations;

(j) Head of Constituent College means the head or Principal of Constituent College.

(k) "Pro Chancellor" means the Pro Chancellor of the University;

(l) "Statutes", "Regulations" and "Rules" means respectively, the Statutes, the Regulations and the Rules made or deemed to have been made under the University of Agriculture, Faisalabad, Act, 1973.

(m) "Syndicate" means the Syndicate of the University;

(n) "Teachers" means Professors, Associate Professors, Assistant Professors and Lecturers engaged whole time by the University/Constituent College, for teaching degree, honours or postgraduate classes, and such other persons as may be declared to be Teachers by Regulations;

(o) "University" means the University of Agriculture, Faisalabad, as reconstituted under University of Agriculture, Faisalabad Act, 1973.

(p) "College" means the constituent College of the University;

(q) "Vice Chancellor" means the Vice Chancellor of the University.

### **3. ACTS OF INDISCIPLINE AND MISCONDUCT:**

The following, among other violation of the provision of the Code of Conduct shall constitute acts of indiscipline and misconduct for which action may be taken against the student(s) by the Competent Authorities for imposing appropriate penalties on the defaulters:

(a) Breach of any rule of public morals, such as:-

- Use of indecent or filthy language in class rooms, residential halls, playgrounds and on the Campus;
- Use of immodest, improper and provocative dress;
- Use of undesirable remarks or gestures;
- Disorderly behavior, such as, shouting, abusing, quarrelling, fighting and insolence;
- Use or attempt or threat to use force;

(b) Defiance of authority;

(c) Impersonation, perjury, giving false information, willful suppression of information, cheating, deceiving and stealing;

(d) Visiting places without a pass which are not to be visited without a pass;

(e) Visiting places out of bounds for students;

(f) Inciting or staging a walk out, a strike or an unauthorized procession;

(g) Shouting of slogans derogatory to the prestige of the University or the reputation of its teachers and officers;

(h) Use of intoxicants;

(i) Keeping of licensed or unlicensed arms/or entering the University with arms;

(j) Immorality;

(k) Loss or damage to University property movable or immovable;

- (l) Actions defamatory of and derogatory to Islam and Pakistan;
- (m) Any act, conduct, disorder or neglect which is considered prejudicial to good order or discipline or unbecoming of a student and a gentleman, by the Competent Authority, and including any act on the part of a University student to bring or attempt to bring political or other outside influence directly or indirectly to bear on the Chancellor, the Pro Chancellor, the Vice Chancellor or any Officer, or any Authority or Teacher of the University.
- (n) Any student misbehaving with a teacher/and or official of the University.

#### **4. COMPETENT AUTHORITIES AND PENALTIES:**

The Deans of the Faculties, Directors of Institute(s), Head of Constituent College concerned, Hall Warden(s) and Director Students' Affairs shall be competent to take disciplinary action on the recommendations of the Advisory Committee(s) concerned against students of their respective Faculties, Directorate, Institute, Constituent College, Residential Halls and Campus found guilty of misconduct and indiscipline. The disciplinary action may take one or more of the following forms, depending on the nature of indiscipline and misconduct:-

- i. Censure and warning for future;
- ii. Withdrawal of financial concessions for one semester;
- iii. Cancellation of hostel accommodation;
- iv. Imposition of fines;
- v. Recovery of loss or breakage of movable and immovable University property;
- vi. Placing a student on probation;
- vii. Suspension from the rolls, and or ban on entry in the

- viii. premises of the University.
- ix. Withdrawal of financial concessions for more than one semester;
- x. Rustication;
- x. Expulsion and
- xi. Debarring from seeking admission to higher studies at the University for a specific period or for EVER.

#### **5. MAJOR AND MINOR PENALTIES:**

For the purposes of these Regulations, penalties specified in Regulation 4 (i) to (vii) shall be deemed to be minor penalties, and those specified in Regulation 4(viii) to (xi) to be major penalties.

#### **6. PAYMENT OF FINE:**

- i) The fine imposed upon a student shall invariably be paid by him/her within ten(10) days from the issuance of its notification. The original Bank receipt showing payment of fine shall be submitted in the Office of the respective Dean/ Director/ Director General/Head of Constituent College/ Hall Warden(s) concerned within due date, failing which the name of the defaulter shall be struck off the University rolls by the Faculty/Institute/Constituent College concerned after receipt of intimation from the concerned quarter. The defaulter shall not be entitled to file an appeal unless depositing the amount of fine.
- ii) In case, the Competent Authority, on the appeal of a student remits or reduces the fine, the amount of fine/its balance may be refunded to the student concerned by the Treasurer's office on the recommendations of the Dean/ Director/ Director General/Head of Constituent College/

Principal Officer (Students' Affairs) concerned.

**7. RECOVERY OF LOSS OR BREAKAGE OF PROPERTY:**

A student shall be liable to make good the loss caused by him to the University property/any student/Official within fifteen (15) days of the notification of the order by the Competent Authority. Failure to make good the loss shall be considered an act of indiscipline and misconduct, within the meaning of Regulation 3(b). The name of such a student shall be struck off from the rolls till making good the loss. The Competent Authority, if required, with the prior approval of the Vice Chancellor, may initiate legal proceedings against the defaulter in a Court of Law.

**8. PLACING ON PROBATION:**

A student may be placed on probation by the Competent Authority for a specified period and such period of probation may be extended if the student fails to improve his conduct. Continued failure to improve his conduct may lead to further disciplinary action.

**9. SUSPENSION FROM ROLLS:**

A student may be suspended from the University rolls for a period not exceeding two weeks at a time. Such a student shall pay the normal fine of absence for the period of suspension. A student suspended from the rolls may be reinstated or his period of suspension may be extended, as the case may be, by the Competent Authority.

**10. RUSTICATION:**

A student committing an act of major indiscipline and misconduct

may be rusticated for an academic year or two semesters which shall mean the loss of one academic year to the rusticated student in so far as his appearance in the University examinations during the academic year is concerned.

**11. EXPULSION:**

A student committing an act of major indiscipline and misconduct may be expelled from the University for at least two academic years or four semesters from the date of expulsion.

**12. NOTIFICATION OF RUSTICATION OR EXPULSION:**

The notification of both (major and minor) or only major penalties as recommended by the Disciplinary/Constituent College Advisory Committee shall be notified by the Registrar, with the approval of the respective Dean/ Director/Director General/Principal concerned being Competent Authority within the meaning of Regulation 4 and the Vice Chancellor. The name(s) of such student(s) shall be considered as struck off from the rolls of the University. In case of major penalties, the delinquent shall have to vacate hostel accommodation immediately and his entry into any part of Campus/Constituent College, shall be banned except as and when called by any of the authorities. The notification in the case of minor penalties only, shall be issued by the respective Dean/Director/Director General/ Principal concerned on receipt of recommendations of the Disciplinary/ Constituent College Advisory Committee. The University shall not issue a migration certificate to rusticated or expelled student(s).

**13. INFORMATION OF PENALTIES FOR ACTS OF INDISCIPLINE AND MISCONDUCT TO PARENTS/GUARDIAN OF STUDENTS:**

Acts of indiscipline and misconduct committed by University student(s) and penalties imposed under these Regulations shall invariably be intimated to the parents/guardian of the student(s) concerned.

**14. RE-ADMISSION OF RUSTICATED STUDENT:**

It shall be obligatory on the part of the Faculty/Institute/Constituent College concerned to re-admit a rusticated student, if he wishes to re-join the University/Constituent College after serving out penalty period. He is required to submit an application in the Office of the respective Dean/Director General/Head of Constituent College concerned well before the commencement of the semester where he stands eligible according to the approved 'Scheme of Studies'. The application should include an undertaking on judicial paper signed by the student and countersigned by his parents/guardian, the Tutor, Senior Tutor or Supervisor concerned and Director Students' Affairs, as the case may be, to abide by the Rules of conduct of the University and not to repeat any act of misconduct and indiscipline in future. If he fails to avail the chance immediately after serving out penalty period, he can seek re-admission in the same semester of the next academic session/semester according to the approved under-and-postgraduate 'Scheme of Studies', as the case may be. In case a student does not avail both of the admissible opportunities, he shall not stand eligible for re-admission in future.

Provided that the Vice Chancellor may, on the recommendations of the Dean/Director/ Director General/Head of Constituent College concerned, as well as Students' Affairs Committee condone the

above period in special circumstances to be recorded in writing.

**15. SPECIAL PERMISSION FOR RE-ADMISSION OF EXPELLED STUDENT:**

An expelled student shall not be re-admitted to the University/ Constituent College, except with the special permission of the Syndicate after the explicit undertaking given by the student on judicial paper, countersigned by his parents/guardian, the Tutor, Senior Tutor or Supervisor concerned and Director Students' Affairs, as the case may be, to abide by the Rules of conduct of the University and not to repeat any act of misconduct and indiscipline.

The expelled student may seek re-admission after serving out penalty period. He is required to submit application addressed to the Vice Chancellor/ Chairman Syndicate accompanied with requisite undertaking, in the Office of the Director Students' Affairs, for consideration of the Syndicate. Such application should be submitted well before the commencement of the semester in which expelled student is eligible for re-admission according to the approved 'Scheme of Studies'. If he fails to apply for re-admission immediately after serving out penalty period, he may submit his request in the same semester of the next academic session/ semester according to the approved under-and-postgraduate 'Scheme of Studies', as the case may be. In case a student does not avail both of the admissible opportunities, he shall stand ineligible for re-admission in future.

Provided that the Syndicate may, on the recommendations of the Dean/ Director/Director General/Head of Constituent College concerned, as well as Principal Officer (Students' Affairs) condone the above period in special circumstances to be recorded in

writing. The Syndicate may however, refuse re-admission without assigning any reason.

**16. DISCIPLINARY ADVISORY COMMITTEES FOR INVESTIGATION OF CASES OF INDISCIPLINE AND MISCONDUCT:**

The cases of indiscipline and misconduct involving students of the University shall be investigated by the Disciplinary Advisory Committee constituted by the Vice Chancellor in the beginning of each calendar year by giving representation to all the Faculties/Institutes. The Principal Officer(Hostels)/Chief Warden/his representative and Legal Advisor of the University/his representative will be Ex-officio members of the Committee. A separate Advisory Committee for each Constituent College, shall also be constituted by the Vice Chancellor in the beginning of each calendar year.

If some outsider(s)/ex-student(s) is/are involved in an indiscipline and misconduct case alongwith the University students, the concerned Advisory Committee, after careful consideration and with the prior approval of the Vice Chancellor, may refer such case to the Police to the extent of outsider(s)/ex-student(s) for investigation and appropriate action.

**17. ADVISORY COMMITTEE FOR RESIDENTIAL HALL:**

Notwithstanding anything to the contrary contained in these Regulations, the Hall Warden (Male for Main/PARS Campus/ Female), may, in consultation with the Advisory Committee of Halls to be constituted by the Principal Officer(Hostels)/ Chief Hall Warden for each (male main/PARS Campus, female) component separately impose the following penalties upon resident student(s) of Halls for act(s) of indiscipline and misconduct

committed in the residential Halls after following the prescribed procedure as laid down under Regulation 18 and 18-a of the University of Agriculture, Faisalabad, Students (Discipline and Conduct) Regulations, 1978:-

- i. Imposition of fine upto Rs.5,000/-(Rupees five thousand only);
- ii. Recovery of loss to University property;
- iii. Placing a student on probation; &
- iv. Expulsion from the Residential Halls.

The Advisory Committee for Residential Halls shall comprise the Hall Warden(s)concerned as Chairman, Associate Hall Wardens/ Senior Superintendent (if Associate Hall Warden is not available in a component) and Superintendent of concerned hostel as members. Provided that a Hall Superintendent may impose a fine of Rs.500/- at a time on the resident student(s).

Provided further that in case the nature of the offence warrants the penalty beyond its jurisdiction, the Hall Advisory Committee(s) shall send the case to the Vice Chancellor through the Principal Officer(Hostels)/Chief Hall Warden alongwith its recommendations for onward transmission to the Disciplinary Advisory Committee for further investigation and appropriate recommendations.

**17a. CAMPUS ADVISORY COMMITTEE:**

A Campus Advisory Committee consisting of Director Students' Affairs as its Chairman, Associate Directors Students' Affairs and Deputy Directors Students' Affairs as its members, shall deal indiscipline and misconduct cases of students at the Campus. This Committee will exercise powers as delegated to the Hall Warden(s) and shall impose the following penalties upon the

students for act(s) of indiscipline and misconduct committed at the Campus after following the prescribed procedure as laid down under Regulation 18 and 18-a of the University of Agriculture, Faisalabad, Students (Discipline and Conduct) Regulations, 1978:-

1. Imposition of fine upto Rs.5,000/- (Rupees five thousand only);
2. Recovery of loss to University property;
3. Recovery of University dues from non-boarders;
4. Placing a student on probation and
5. Censure.

Provided further that in case the nature of the offence warrants penalty beyond its jurisdiction, the Campus Advisory Committee shall send the case to the Vice Chancellor through the Principal Officer(Students' Affairs) alongwith its recommendations, for onward transmission to the Disciplinary Advisory Committee for further investigation and appropriate recommendations.

#### **18. PROCEDURE FOR INVESTIGATION:**

The following procedure shall be observed before imposing penalty on a student:-

The Vice Chancellor, on receipt of a report from a teacher or any other source for the breach or violation of the provisions of the Code of Conduct/Discipline, shall call the same to be considered by the Disciplinary Advisory Committee/Hall/Campus Advisory Committee concerned.

The Advisory Committee shall:

- i. frame charges and communicate it to the student simultaneously through official communication to his/her given University address as furnished by him/her in his/her admission form and notification in Campus News together

with a statement of allegation explaining the charges and or any other relevant circumstances which are proposed to be taken into consideration;

- ii. require the student within a reasonable time which shall not be more than seven (7) days from the date of issuance of notice as prescribed under 18(i) above, to put in a written and or oral defence;
- iii. enquire into the charges and examine such oral or documentary evidence in support of the charges, or in defence of the student, as may be considered necessary;
- iv. determine on the basis of evidence and proceedings of enquiry as early as possible whether the act(s) of indiscipline or misconduct warrants a major or a minor penalty;
- v. the Committee shall invariably serve final show cause notice indicating penalty to be imposed upon the accused and providing an opportunity of being heard in person before communicating its recommendations to the Competent Authority for final orders;
- vi. in case the student fails to respond to the notice issued to him under para 18(i& v) above, ex-parte decision shall be taken against him provided that the student under legal detention or hospitalized may respond to the said notice within seven (7) days after the release or discharge, as the case may be.
- vii. The Committee, in case of minor penalties shall send its recommendations to the Vice Chancellor for his information and in case of major penalties, for his orders. The orders of the Vice Chancellor shall be final.

**18a. PROCEEDINGS FOR SERIOUS ACTS OF INDISCIPLINE:**

(1) Notwithstanding anything to the contrary contained in Regulation 18, a student accused of a serious act of indiscipline, such as:

- (i) indulging in any criminal act(s) or
- (ii) provoking the students to demonstration or boycott of classes; inside or outside the University Campus; and other constituent educational institutions;
- (iii) bringing fire arms on the Campus; or
- (iv) indulging in any immoral act;
- (v) misbehaving with a teacher/and or official of the University, shall be proceeded against immediately by the Advisory Committee concerned and the proceedings shall be concluded within 48 hours of the commission of the offence and act of indiscipline. The accused shall be given an opportunity of being personally heard and in case of absence or non-appearance, the notice of the proceedings shall be given to the parents/guardian, if available, for ensuring the attendance. The ex-parte action shall be taken against those who would not be available. Before taking ex-parte action, a notice shall be pasted on the Notice Board or at a prominent part of the buildings at the Campus. In case allegations leveled against the accused are proved, the penalty of expulsion shall be imposed upon him.

(2) The matter shall also be reported to the Police about the commission of offence having been committed as and when required.

**18b.** Nothing provided in clause 18 and 18a shall restrict the powers of the Vice Chancellor/Head of Constituent College to pass immediate orders without referring the case to the Advisory Committee(s) and without following the specified procedure, if situation so warrants.

**19. APPEAL AGAINST THE PENALTY:**

- 1. A student on whom any major/minor or both penalties has/have been imposed on involvement in a particular case of indiscipline and misconduct on the recommendations of the Disciplinary Advisory Committee/Constituent College Advisory Committee, may, within thirty (30) days from the date of announcement of the order, may file an appeal against that order to the Vice Chancellor.
- 2. The Vice Chancellor, after obtaining advice of the Discipline Committee as constituted under paragraph 11 of the First Statutes appended to the University of Agriculture, Faisalabad, Act, 1973, may dismiss the appeal or acquit/pardon the appellant, or order a fresh enquiry, or reduce or enhance the penalty. If expedient, he may also consider to suspended the penalty on the advice of the Discipline Committee for a specific period conditionally to be reimposed immediately on evidence of his/her involvement in any act(s) of indiscipline. The period of suspension of penalty may be extended on semester to semester basis conditionally on the recommendations of the Students' Affairs Committee. Provided that wherever the punishment is suspended on semester to semester basis conditionally for completion of Certificate/Degree in which the student(s) studying at

the time of imposition of penalty, s/he will be debarred for admission to next degree program for a period of three (3) years of declaration of result of existing certificate/degree. After the expiry of stipulated period, such student(s), if desire, may be considered for admission on the recommendation of the Students' Affairs Committee. Provided further that the Students' Affairs Committee may refuse admission to such student (s) under any circumstances.

3. A student on whom only minor penalty is imposed by the Advisory Committee(s) concerned, may, within fifteen (15) days from the announcement of the orders, appeal to the Dean/Director/Director General/Head of Constituent College concerned, who shall be the Competent Authority to pass such order as may deem fit.

Similarly, in the case of imposition of minor penalty by the Hall/Campus Advisory Committee the Principal Officer of respective component shall be the competent authority to pass such order on the appeal as may deem fit in consultation with the Student's Affairs/Hall Advisory Committee, as the case may be.

4. Provided that:-

(i) no recommendations/decision under this Regulation shall be made, unless an affected student is afforded an opportunity of being heard in person. Provided further that in case the appellant does not appear for personal hearing according to communicated schedule, the appeal be kept pending. In case the appellant fails to appear for second time, the pending appeal be disposed of on its merit in absentia, ex parte.

(ii) where the appellate authority decides to enhance the penalty, it shall:-

- (a) by an order, in writing, inform the accused of the action proposed to be taken and the grounds of such enhanced punishment.
- (b) given him/her a reasonable opportunity to show cause against that action.

**20. REVIEW AGAINST THE ORDER ON APPEAL:**

(1) The punished student(s), may, apply for review of the orders passed on his/her appeal if contrary to the pray to the Vice Chancellor in the case of major and minor penalties, within a period of fifteen (15) days from the announcement of the orders. The Vice Chancellor may pass appropriate orders thereupon on the basis of evidences, available record and decision taken earlier on the appeal of the concerned student(s). If appropriate, the Vice Chancellor may seek advice of the Discipline Committee on the review appeal(s) before passing suitable orders.

(2) If a student whose penalty is suspended under Regulation 19(2), is again found involved in act(s) of indiscipline and misconduct and is awarded fresh penalty alongwith re-imposition of previous suspended penalty, may appeal against the fresh penalty only, to the Competent Authority within the prescribed period of thirty (30) days. He may also request for review of the orders passed by the Competent Authority on his appeal as provided under Regulation 20(1) of the Regulations ibid.

## **UAF HOSTEL RULES**

### **ADMISSION TO A HOSTEL**

There are separate hostels for male and female students on the campus. The hostels are open only to the bonafide students of the University. A resident student will have to abide by the following and such other Rules as may be framed from time to time.

### **HALL SENATE**

There shall be Hall Senate comprising of Principal Officer(Hostels)/ Chief Hall Warden, Hall Wardens, Deputy Hall Warden, Associate Hall Wardens, Superintendents and Assistant Superintendents.

1. The Vice Chancellor/Principal Officer (Hostels)/Chief Hall Warden, Hall Warden may refuse admission or expel any student if she/he is satisfied that she/he is not a suitable person to stay in hostel.  
On the recommendations of the Hall Senate/Advisory committee, the character certificate issued by the various colleges will also be verified as other degrees issued by the University/Colleges are verified.
2. The hostel accommodation is provided to the bonafide students of the University, subject to the availability of seat.
3. Hall shall be allotted with the prior approval of the Hall Warden and seat within the Hall by the Hall Superintendent on seniority/merit basis, which will be determined by the year of the study taking into consideration GPA/CGPA.
4. On allotment slip full particulars including recent photograph, recent email, permanent address with phone number/cell number (if any) and complete address of the

student will be given.

5. In making the allotment, the hostel authorities will also take into account the conduct and character of a boarder. Those having been imposed penalties shall lose their seniority.
6. The allotment of such students whose hostel dues are in arrears shall be liable to be cancelled.
7. No boarder is allowed to change his/her seat without prior permission of the hostel authorities.

### **HOSTEL FEE AND SUBSCRIPTION**

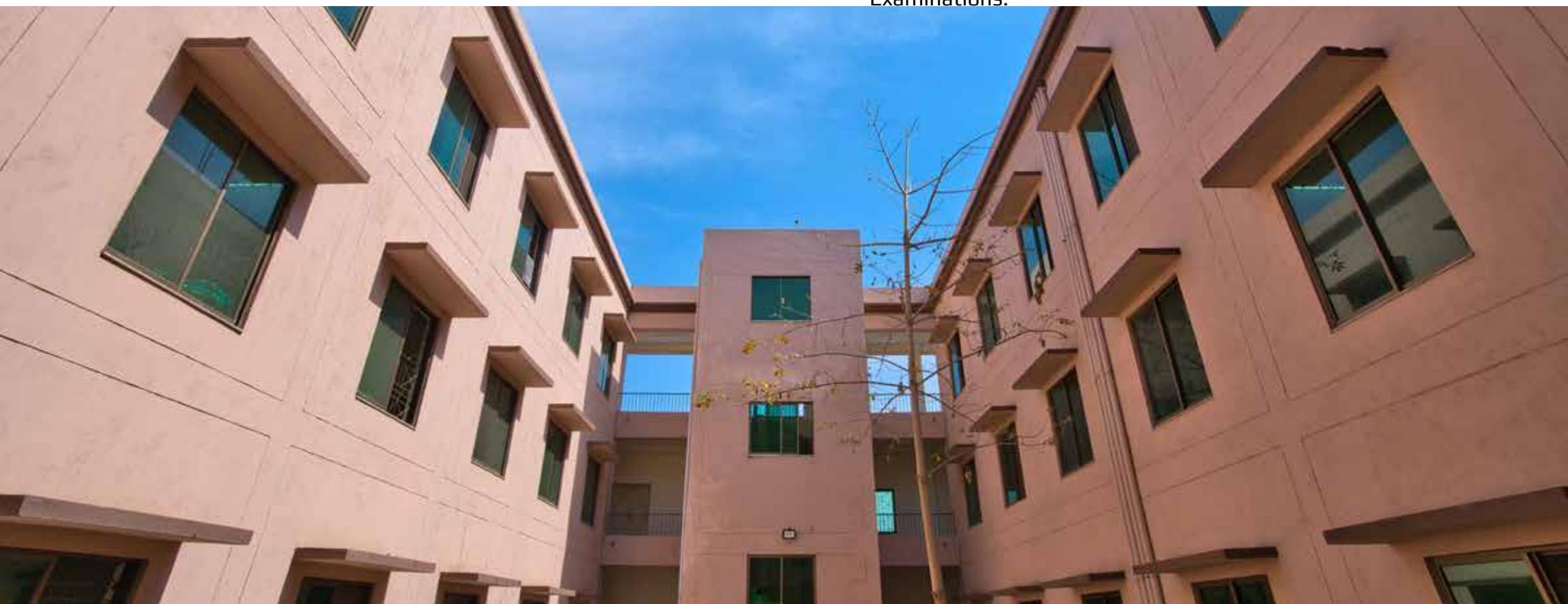
1. Hostel fee deposits as determined by the University from time to time are payable by the student in each semester.
2. Hostel allotment of a student shall stand cancelled, if, s/he fails to pay hostel dues. However, s/he may seek re-admission in a hostel as admissible under rules.
3. Students staying for additional semester/summer session/ thesis examination/ research work will have to pay the hostel fee and subscription etc.

### **MESS/CANTEEN RULES**

1. Hostel mess is managed by the students and supervised by the Assistant Superintendent/Hall Superintendent.
2. Nobody other than bonafide student is allowed to be a mess member. Day scholar students may become a member with permission of Hall Superintendent who will ensure the payment of mess dues.
3. Members will elect their own mess manager/mess committee.
4. Mess manager/Mess committee is responsible for proper

maintenance of mess and cleanliness of kitchen, utensils, dining hall and its surroundings.

- 5. Members will pay their dues to the mess manager on or before 7th of every month. Arrears of previous months must be cleared by 7th of the following month.
- 6. The mess manager will submit complete mess account to the Hall Superintendent by 10th of every month.
- 7. Meals are served only in the Dining Hall. No service is provided in the room(s).
- 8. A member intending to absent himself/herself from a meal must inform the mess manager a day before, otherwise s/he will be charged for it.
- 9. Students must settle their accounts with canteen every month regularly. Arrears of the canteen/mess will be recovered from the students at the time of enrolment of each semester. The students will not be enrolled till getting clearance certificate from the Hall Superintendent/ Associate Hall Warden/Hall Warden. If any student leaves the hostel without paying hostel dues, the amount outstanding against him/her will be recovered alongwith a fine of Rs.500/- at the time of next enrolment. In case such a student leaves hostel after qualifying a degree, the outstanding amount shall be recovered at the time of issuance of provisional certificate etc. by the Controller of Examinations.



## **VISITORS**

1. Admission rights to a hostel premises are reserved.
2. Without permission no outsider is allowed to stay at night in the hostel. Violation of this rule will render the boarder liable for expulsion from a hostel in addition to other penalty, which the Hall Warden may impose upon him/her. The outsider found staying/residing in a hostel will be handed over to the police.
3. All visitors must leave the hostel by 10:00 pm, but in case of female visitors they will have to leave the hostel before sun set.
4. Parents/authorized guardians of a boarder may be allowed to stay for a night with prior permission of the Hall Warden.
5. No female visitors are allowed to enter the male hostel and vice versa in any circumstances. Parents/authorized guardians (in case of female) of the female students are allowed to see the students in a specified visiting room during visiting hours.

## **DISCIPLINE**

All bonafide University students are governed by the University of Agriculture, Faisalabad, Students (Discipline and Conduct) Regulations, 1978. However, the following additional rules have been framed to regulate day to day activities of boarders:-

1. Roll will be called daily at 8:00 to 9:00pm. Disciplinary action will be taken against habitual late comers to a hostel at night.
2. No gathering or meeting or group activities of unauthorized student bodies are allowed in the premises of a hostel.
3. No religious/social ceremony likely to injure the sentiments

of other boarders is allowed in the hostel. No speaker from outside the University is permitted in the hostels.

4. Every part of the hostel premises shall freely be opened to the hostel authorities for inspection at any time.
5. No boarder shall indulge in any amusement which may disturb other boarder. Use of V.C. R. is completely prohibited.
6. Other than electric lights and fans no electric appliances like electric heaters, air conditioners, T.V., V.C.R. musical instruments and exhaust fans etc. will be used in a hostel. However, portable air cooler may be used inside the room after getting prior permission from the Hall Warden. But the boarder student will have to pay fixed amount for the purpose. Any damage to the doors, windows/walls to be done by the students will be recovered from the student(s) concerned. The use of electrical appliances is liable to lead to confiscation of the appliance alongwith a fine to be decided by the Hall Warden. The resident students may however, be allowed to use computers for academic purposes only.
7. 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.
8. Firearms and other weapons, liquor, intoxicants, "Hukka" or other prohibited/objectionable tabooed articles are not allowed to be kept/used in the hostel.
9. Drug addict students will be expelled from the hostel.
10. It is the paramount duty of all the residents of the hostels to maintain cleanliness and healthy surroundings both in and outside their rooms. Spitting in rooms, verandas

or on stairs, smoking in common rooms, dining halls and defacing walls and fixtures is strictly prohibited.

11. Boarders are required to observe necessary precautions for the safe custody of their belongings /valuables. They must not leave their rooms unlocked. In such cases, Hall administration will not be responsible for any loss of property.

12. All cases of sickness must be reported to the hall authorities for necessary help and assistance to them.

13. The allotment of a student will be cancelled who remains himself/herself absent for one week from the hostel without prior permission/intimation to the concerning authority. However, he/she may seek re-admission as admissible under rules.

14. The boarders are required to maintain discipline in the hostel. The following among other violations of the indiscipline for which action may be taken against the student(s) concerned:-

- (a) Breach of any rule of public morals, such as:-
  - i. Use of indecent or filthy language in the premises of residential halls;
  - ii. Use of immodest, improper and provocative dress;
  - iii. Use of undesirable remarks or gestures;
  - iv. Disorderly behavior, such as, fooling, shouting, abusing, quarrelling, fighting and insolence, indecency, profligacy and debauchery;
- (b) Defiance of authority;
- (c) Impersonation purgery, giving false information, willful suppression of information, cheating,

- (d) deceiving and stealing etc;
- (e) Shouting of slogans derogatory to the prestige of the University or the reputation of its teachers and officers;
- (f) Use of intoxicants;
- (g) Keeping of licensed or unlicensed firearms or entering the hostel with arms;
- (h) Immorality, failure to comply with a penalty imposed by a disciplinary authority;
- (i) Actions defamatory and derogatory to Islam and Pakistan, spreading false news, rumors or panic, conviction for any crime by a Court of Law.

15. The hall authorities are responsible for maintaining discipline in the hostel and are authorized to admonish students for any irregularity or breach of discipline.

16. The Hall Superintendent, Associate Hall Warden or Hall Warden may punish a student for breach of discipline by way of a fine not exceeding to Rs.2000/- in each case. Admonitions will be reported in writing. Three admonitions in a semester or any serious offence will be brought to the notice of the University authorities for appropriate action.

17. Boarders violating the above mentioned rules shall be punished, suspended/expelled from the hostel. An expelled student may however be re-admitted in the hostel, only once, during his/her stay in the University.



UNIVERSITY OF  
AGRICULTURE

# **SCHEME OF STUDIES**

**FACULTY OF AGRICULTURE****B.Sc. (Hons) Agriculture Credit Hours distribution:**

Summary of first- four semesters

Major CH	= 36
General Education CH	= 30
Allied courses CH	= 12
<b>Total</b>	<b>= 78</b>

After four semesters

Major CH	= 60
Internship and Capstone	= 06
<b>Total</b>	<b>= 66</b>
<b>Degree total</b>	<b>= 78 + 66 = 144</b>

**B.SC. (HONS.) AGRICULTURE****Semester 1**

Course Code	Title	Credit Hours	Course
AGR-301/ AGR304	BASIC AGRICULTURE/ WEED CONTROL METHODS (FOR F.SC. PRE-AGRI.)	3(1-2)	Major
FRW-301	INTRODUCTION TO FORESTRY	3(2-1)	Major
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	Major
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE

Course Code	Title	Credit Hours	Course
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE
MATH-301/ BIO-301	ELEMENTARY MATHEMATICS / ESSENTIALS OF BIOLOGY	3(3-0) 3(2-1)	GE
ID-304	IRRIGATION AND DRAINAGE PRACTICES	2(1-1)	Allied
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
AEE-301	INTRODUCTION TO AGRICULTURAL EXTENSION	2(1-1)	Major
ENT-302	FUNDAMENTALS OF ENTOMOLOGY	3(2-1)	Major
PP-302	INTRODUCTORY PLANT PATHOLOGY	3(2-1)	Major
HORT-302	FUNDAMENTAL HORTICULTURE	3(2-1)	Major
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
ARE-301	PRINCIPLES OF AGRICULTURAL AND RESOURCE ECONOMICS	3(3-0)	Allied
	<b>Total Credit Hours</b>	<b>19</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
PBG-401	FUNDAMENTALS OF PLANT BREEDING AND GENETICS	3(2-1)	Major
BIOTECH-401	BASES OF MOLECULAR BIOLOGY AND GENETICS	3(3-0)	Major
SS-401	SOIL SCIENCE	3(2-1)	Major

Course Code	Title	Credit Hours	Course
MAB-401	FUNDAMENTALS OF AGRIBUSINESS AND MARKETING	2(2-0)	Major
Math-408	QUANTITATIVE REASONING I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
VMD-401	INTRODUCTION TO VETERINARY PREVENTIVE MEDICINE	2(1-1)	Allied
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

#### Semester 4

Course Code	Title	Credit Hours	Course
AH-402	INTRODUCTION TO ANIMAL HUSBANDRY	3(2-1)	Major
MIC-402	BASIC MICROBIOLOGY	2(2-0)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING - II	3 (3-0)	GE
FMP-405	FARM MECHANIZATION	2(1-1)	Allied
Biochem-502	FUNDAMENTAL BIOCHEMISTRY	3(2-1)	Allied
IS-403	ROHANIAT/MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>19</b>	

## B.SC. (HONS.) AGRI. MAJOR AGRONOMY

### Semester 5

Course Code	Title	Credit Hours	Course
AGR-501	AGRO-TECHNOLOGY OF MAJOR FIELD CROPS	3(2-1)	Major
AGR-503	SUSTAINABLE AGRICULTURE AND ORGANIC FARMING	3(2-1)	Major
AGR-505	FIELD CROP PHYSIOLOGY	3(2-1)	Major
AGR-507	PRINCIPLES OF WEED MANAGEMENT	3(2-1)	Major
AGR-509	SMART FARMING	3(2-1)	Major
AGR-511	GLOBAL AGRICULTURE	3(3-0)	Major
AGR-513	FODDERS AND FORAGES	2(1-1)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
AGR-502	SEED SCIENCE AND TECHNOLOGY	3(2-1)	Major
AGR-504	ARID ZONE AGRICULTURE	3(3-0)	Major
AGR-506	AGRO TECHNOLOGY OF MINOR FIELD CROPS AND MEDICINAL PLANTS	3(2-1)	Major
AGR-508	MANAGEMENT OF FIELD CROP NUTRITION	3(2-1)	Major
AGR-510	IRRIGATION AGRONOMY	3(2-1)	Major
AGR-512	ECO-PHYSIOLOGICAL ASPECTS OF WEEDS	2(1-1)	Major
AGR-514	BIOLOGICAL DATA SCIENCE	3(1-2)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
AGR-601	AGRO-ECOLOGY	2(2-0)	Major
AGR-603	BIOLOGICAL CROP POTENTIAL	3(2-1)	Major
AGR-605	CONSERVATION AGRONOMY	2(1-1)	Major
AGR-607	ENVIRONMENTAL PHYSIOLOGY AND CROP IMPROVEMENT	3(2-1)	Major
AGR-609	CROP MODELING IN AGRICULTURE	3(2-1)	Major
AGR-611	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	2(1-1)	Major
AGR-613	FARMING SYSTEMS AND FARM RECORDS	3(2-1)	Major
AGR-615	ANALYTICAL TECHNIQUES IN PLANT SCIENCES	2(0-2)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
AGR-602	INTERNSHIP	3(0-3)	Major
AGR-604	CAPSTONE PROJECT	3(0-3)	Major

**B.SC. (HONS.) AGRI. MAJOR BIOTECHNOLOGY**

**Semester 5**

Course Code	Title	Credit Hours	Course
BIOTECH-501	FUNDAMENTALS OF BIOTECHNOLOGY	3(3-0)	Major
BIOTECH-503	PLANT CELL TISSUE AND ORGAN CULTURE	3(2-1)	Major

Course Code	Title	Credit Hours	Course
BIOTECH-505	MOLECULAR CELL BIOLOGY	3(2-1)	Major
BIOTECH-507	INTRODUCTION TO BIOINFORMATICS	3(2-1)	Major
BIOTECH-509	MOLECULAR GENETICS	3(2-1)	Major
BIOTECH-511	TECHNIQUES IN BIOTECHNOLOGY	3(0-3)	Major
BIOTECH-513	MOLECULAR FORENSICS	2(2-0)	Major
	<b>Total Credit Hours</b>	<b>20</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
BIOTECH-502	RECOMBINANT DNA TECHNOLOGY	4(3-1)	Major
BIOTECH-504	APPLICATIONS OF BIOTECHNOLOGY IN AGRICULTURE	3(3-0)	Major
BIOTECH-506	MOLECULAR PLANT BREEDING	3(2-1)	Major
BIOTECH-508	PLANT TRANSFORMATION	3(2-1)	Major
BIOTECH-510	BIOLOGICAL DATA SCIENCE (This course will be offered in modules with department of Math & Stat)	3(1-2)	Major
BIOTECH-512	PRINCIPLES OF PLANT MOLECULAR PHYSIOLOGY	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>19</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
BIOTECH-601	FUNDAMENTALS OF SEED MOLECULAR BIOLOGY	3(3-0)	Major
BIOTECH-603	FUNCTIONAL GENOMICS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
BIOTECH-605	NANOBIOTECHNOLOGY (This course will be offered in modules with department of chemistry)	3(3-0)	Major
BIOTECH-607	BIOSAFETY, BIOETHICS AND RISK ASSESSMENT	3(3-0)	Major
BIOTECH-609	SCIENTIFIC COMMUNICATIONS	3(2-1)	Major
BIOTECH-611	BIOTECHNOLOGY ENTERPRENEURSHIP (This course will be offered in modules with Department of IBMS)	3(3-0)	Major
BIOTECH-613	INTRODUCTORY SYSTEMS BIOLOGY	3(2-1)	Major
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
BIOTECH-602	INTERNSHIP	3(0-3)	Major
BIOTECH-604	CAPSTONE REPORT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**B.SC. (HONS.) AGRI. MAJOR ENTOMOLOGY**

**Semester 5**

Course Code	Title	Credit Hours	Course
ENT-501	INSECT MORPHOLOGY	3(2-1)	Major
ENT-503	PRINCIPLES OF INSECT TAXONOMY	3(2-1)	Major
ENT-505	INSECT ECOLOGY AND BEHAVIOUR	3(2-1)	Major
ENT-507	INSECT PESTS OF HOUSEHOLD, HUMAN AND ANIMALS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
ENT-509	SUSTAINABLE PEST MANAGEMENT OF HIGH VALUE CROPS	3(2-1)	Elective Major
ENT-511	VERTEBRATE PESTS AND THEIR MANAGEMENT	3(2-1)	Elective Major
ENT-513	INSECT BIODIVERSITY MANAGEMENT	2(1-1)	Elective Major
ENT-515	ENTOMOLOGICAL HISTORY AND LITERATURE	2(2-0)	Elective Major
ENT-517	BIOLOGICAL DATA SCIENCE	2(1-1)	Major
<b>Total Credit Hours</b>		<b>19</b>	
Students will choose two courses worth 5 credit hours among the elective major courses			

**Semester 6**

Course Code	Title	Credit Hours	Course
ENT-502	INSECT PHYSIOLOGY	3(2-1)	Major
ENT-504	INSECT BIODIVERSITY AND EVOLUTION	3(2-1)	Major
ENT-506	AGRICULTURAL PESTS AND THEIR MANAGEMENT	4(3-1)	Major
ENT-508	STORED PRODUCTS PESTS AND THEIR MANAGEMENT	3(2-1)	Major
ENT-510	BENEFICIAL INSECTS	3(2-1)	Major
ENT-512	INSECTICIDES AND ENVIRONMENTAL POLLUTION	3(2-1)	Elective Major
ENT-514	SOCIAL AND AQUATIC INSECTS	3(2-1)	Elective Major
ENT-516	BASICS OF INSECT CYTOGENETICS	2(1-1)	Elective Major
ENT-518	ARACHNID PESTS AND THEIR MANAGEMENT	2(1-1)	Elective Major
<b>Total Credit Hours</b>		<b>21</b>	
Students will choose two courses worth 5 credit hours among the elective major courses			

**Semester 7**

Course Code	Title	Credit Hours	Course
ENT-601	PLANT RESISTANCE TO INSECT PESTS	2(1-1)	Major
ENT-603	INSECTICIDES AND THEIR APPLICATION	4(3-1)	Major
ENT-605	RANGE AND FOREST ENTOMOLOGY	3(2-1)	Major
ENT-607	PEST FORECASTING AND MANAGEMENT	4(3-1)	Major
ENT-609	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	2(1-1)	Major
ENT-611	PEST MANAGEMENT AND PHYTOSANITARY MEASURES	3(2-1)	Major
ENT-613	POST-HARVEST PROTECTION OF CEREALS	2(1-1)	Elective Major
ENT-615	AGRICULTURAL PESTICIDE LEGISLATION	2(2-0)	Elective Major
<b>Total Credit Hours</b>		<b>20</b>	
Students will choose two courses worth 5 credit hours among the elective major courses			

**Semester 8**

Course Code	Title	Credit Hours	Course
ENT-602	INTERNSHIP AND EXTERNAL EVALUATION	3(0-3)	
ENT-604	CAPSTONE PROJECT	3(0-3)	
	<b>Total Credit Hours</b>	<b>6</b>	

## B. SC. (HONS) AGRICULTURE, MAJOR AGRI. EXTENSION

### Semester 5

Course Code	Title	Credit Hours	Course
AEE-501	AGRICULTURAL JOURNALISM	3(2-1)	Major
AEE-503	ADULT LEARNING AND CONTINUING EDUCATION	3(3-0)	Major
AEE-505	HISTORY AND PHILOSOPHY OF AGRICULTURAL EXTENSION	3(3-0)	Major
AEE-507	EXTENSION EDUCATION STRATEGIES	3(2-1)	Major
AEE-509	YOUTH AND AGRICULTURAL EXTENSION	3(2-1)	Major
AEE-515	AGRICULTURAL INNOVATIONS AND THEIR DISSEMINATION	2(2-0)	Major
<b>Total Credit Hours</b>		<b>17</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
AEE-504	PROGRAM DEVELOPMENT IN AGRICULTURAL EXTENSION	4(3-1)	Major
AEE-506	HUMAN RESOURCE DEVELOPMENT IN AGRI. EXTENSION	4(4-0)	Major
AEE-508	AUDIO-VISUAL AIDS IN AGRICULTURAL EXTENSION	4(2-2)	Major
AEE-510	ICTS IN AGRICULTURAL EXTENSION	3(2-1)	Major
AEE-512	AGRITOURISM	3(2-1)	Major
AEE-514	GENDER AND DEVELOPMENT IN AGRI. EXTENSION EDUCATION	3(3-0)	Major
AEE-518	RURAL POOR AND SUSTAINABLE LIVELIHOODS	2(2-0)	Major
<b>Total Credit Hours</b>		<b>23</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
AEE-601	RURAL DEVELOPMENT	4(3-1)	Major
AEE-603	AGRICULTURAL TECHNOLOGY TRANSFER	4(3-1)	Major
AEE-605	MONITORING AND EVALUATION IN AGRICULTURAL EXTENSION	4(3-1)	Major
AEE-607	RESEARCH METHODS IN AGRI. EXTENSION	4(3-1)	Major
AEE-611	AGRICULTURAL LAWS AND REGULATORY BODIES	2(2-0)	Major
AEE-613	INTERVIEWING AND SPEECH COMMUNICATION	2(1-1)	Major
AEE-614	DATA ANALYTICS FOR SOCIAL SCIENCES	2(0-2)	Major
<b>Total Credit Hours</b>		<b>22</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
AEE-602	INTERNSHIP	3(0-3)	Major
AEE-604	CAPSTONE PROJECT	3(0-3)	Major
<b>Total Credit Hours</b>		<b>6</b>	

**B.Sc. (HONS.) AGRI. MAJOR FORESTRY AND RANGE MANAGEMENT**

**Semester 5**

Course Code	Title	Credit Hours	Course
FRW-501	APPLIED ECOLOGY AND SILVICULTURE	3(2-1)	Major
FRW-503	FORAGE PRODUCTION IN RANGELANDS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
FRW-505	SOCIAL FORESTRY SYSTEMS	3(2-1)	Major
FRW-507	HYDROLOGY AND WATERSHED CONSERVATION	3(2-1)	Major
FRW-509	URBAN FORESTRY AND LANDSCAPE DESIGN	2(1-1)	Major
FRW-511	WILDLIFE OF PAKISTAN	3(2-1)	Major
FRW-513	FUNDAMENTALS OF FOREST MANAGEMENT	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>20</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
FRW-502	FOREST HARVESTING AND UTILIZATION	3(2-1)	Major
FRW-504	MOUNTAIN FORESTRY AND WATERSHED MANAGEMENT	3(2-1)	Major
FRW-506	FOREST BIOMETRICS	3(2-1)	Major
FRW-508	NURSERY RAISING TECHNIQUES	3(2-1)	Major
FRW-510	INTEGRATED MANAGEMENT OF DEGRADED LANDS	3(2-1)	Major
FRW-512	COMMERCIAL WILDLIFE FARMING	2(1-1)	Major
FRW-514	CLIMATE CHANGE AND CLEAN DEVELOPMENT MECHANISM	3(2-1)	Major
	<b>Total Credit Hours</b>	<b>20</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
FRW-601	WOOD SCIENCE AND TECHNOLOGY	3(2-1)	Major
FRW-603	FOREST/RANGE/WILDLIFE POLICIES AND LAWS	3(3-0)	Major

Course Code	Title	Credit Hours	Course
FRW-605	RANGE LIVESTOCK NUTRITION	2(0-2)	Major
FRW-607	BIODIVERSITY AND ENVIRONMENT	3(2-1)	Major
FRW-609	PREPARATION OF FOREST MANAGEMENT PLAN	3(0-3)	Major
FRW-611	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	3(2-1)	Major
FRW-613	DESERTIFICATION AND ITS CONTROL	3(2-1)	Elective Major
FRW-615	BIOLOGICAL DATA SCIENCE	3(1-2)	Elective Major
<b>Total Credit Hours</b>		<b>20</b>	
Students will select one elective course for this semester.			

#### Semester 8

Course Code	Title	Credit Hours	Course
FRW-602	INTERNSHIP	3(0-3)	
FRW-604	CAPSTONE PROJECT	3(0-3)	
<b>Total Credit Hours</b>		<b>6</b>	

### B.SC. (HONS.) AGRI. MAJOR HORTICULTURE

#### Semester 5

Course Code	Title	Credit Hours	Course
HORT-501	PRINCIPLES OF FRUIT PRODUCTION AND MANAGEMENT	3(2-1)	Major
HORT-503	VEGETABLE CROP PHYSIOLOGY	3(2-1)	Major
HORT-505	ORNAMENTAL HORTICULTURE	3(2-1)	Major

Course Code	Title	Credit Hours	Course
HORT-507	MEDICINAL AND AROMATIC PLANTS PRODUCTION	3(2-1)	Major
HORT-509	ORGANIC HORTICULTURE	3(2-1)	Major
HORT-511	GREENHOUSE MANAGEMENT	3(2-1)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
HORT-513	INDOOR GARDENING	2(1-1)	Major/Elective
HORT-517	INNOVATIVE VEGETABLE PRODUCTION	2(1-1)	Major/Elective
AGR-615	ANALYTICAL TECHNIQUES IN PLANT SCIENCES	2(0-2)	Major/ Elective
<b>Total Credit Hours</b>		<b>20</b>	
Students will opt. 2 credit hours from elective courses)			

## Semester 6

Course Code	Title	Credit Hours	Course
HORT-502	TROPICAL AND SUBTROPICAL FRUITS	3(2-1)	Major
HORT-504	VEGETABLE PRODUCTION	3(2-1)	Major
HORT-506	LANDSCAPE HORTICULTURE	3(2-1)	Major
HORT-508	GENETICS AND BREEDING OF HORTICULTURAL CROPS	3(2-1)	Major
HORT-510	RESEARCH METHODS IN HORTICULTURE	3(2-1)	Major
<b>Sub-Total Credit Hours</b>			
HORT-512	UNDERUTILIZED FRUIT PRODUCTION	3(2-1)	Major/ Elective
HORT-514	BIOLOGICAL DATA SCIENCE	3(2-1)	Major/ Elective
PP-504	Diseases of Horticultural Crops	3(2-1)	Major/ Elective
HORT-516	GOOD AGRICULTURAL PRACTICES	2(1-1)	Major/ Elective

Course Code	Title	Credit Hours	Course
HORT-518	HORTICULTURAL ENTREPRENEURSHIP AND PROJECT MANAGEMENT	2(1-1)	Major/ Elective
	<b>Total Credit Hours</b>	<b>20</b>	
(Students will opt. 5 credit hours from elective courses)			

### Semester 7

Course Code	Title	Credit Hours	Course
HORT-601	NUTRIENT MANAGEMENT IN HORTICULTURE	3(2-1)	Major
HORT-603	COMMERCIAL FLOWER PRODUCTION	3(2-1)	Major
HORT-605	NURSERY PRODUCTION AND MANAGEMENT	3(2-1)	Major
HORT-607	MICROPROPAGATION	2(1-1)	Major
HORT-609	POSTHARVEST HORTICULTURE	3(2-1)	Major
HORT-611	SCIENTIFIC COMMUNICATIONS	2(1-1)	Major
HORT-613	TEMPERATE FRUITS	2(1-1)	Major
HORT-615	PRINCIPLES OF FLOWERS AND VEGETABLE SEED PRODUCTION	2(1-1)	Major
	<b>Total Credit Hours</b>	<b>20</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
HORT-602	INTERNSHIP	3(0-3)	Major
HORT-604	CAPESTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

## B.SC. (HONS.) AGRI. MAJOR MARKETING AND AGRIBUSINESS

### Semester 5

Course Code	Title	Credit Hours	Course
MAB-501	AGRIBUSINESS MANAGEMENT	3(3-0)	Major
MAB-505	PRINCIPLES OF ACCOUNTING	3(3-0)	Major
MAB-509	PRINCIPLES OF MARKETING	3(3-0)	Major
ARE-302	MICROECONOMICS-I	3(3-0)	Allied
MAB-511	PRINCIPLES OF MANAGEMENT	3(3-0)	Major
MAB-513	BUSINESS AND CORPORATE LAW	2(2-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
MAB-502	BUSINESS FINANCE	3(3-0)	Major
MAB-504	RESEARCH METHODS IN AGRIBUSINESS	3(2-1)	Major
MAB-506	AGRICULTURAL MARKETING	3(3-0)	Major
MAB-508	INTRODUCTION TO HUMAN RESOURCE MANAGEMENT	2(2-0)	Major
ARE-406	MACROECONOMICS-I	3(3-0)	Allied
MAB-510	BUSINESS COMMUNICATION AND PRESENTATION SKILLS	3(2-1)	Major
MAB-512	CONSUMER BEHAVIOR	3(3-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
MAB-601	INTERNATIONAL BUSINESS MANAGEMENT	3(3-0)	Major
MAB-603	WHOLESALE AND RETAIL MANAGEMENT	3(3-0)	Major
MAB-605	INTRODUCTION TO AGRIBUSINESS POLICY	3(3-0)	Major
MAB-607	AGRIBUSINESS VALUE CHAIN MANAGEMENT	3(3-0)	Major
MAB-611	PREPARATION OF RESEARCH PROJECTS AND SCIENTIFIC WRITING	3(2-1)	Major
MAB-619	AGRIBUSINESS INSTITUTIONS AND LEGISLATION	3(3-0)	Major
MAB-613	LIVESTOCK AND POULTRY MARKETING MANAGEMENT	2(2-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
MAB-602	INTERNSHIP	3(0-3)	Major
MAB-604	CAPSTONE PROJECT	3(0-3)	Major
<b>Total Credit Hours</b>		<b>6</b>	

**B.SC. (HONS.) AGRI. MAJOR PLANT BREEDING & GENETICS**

**Semester 5**

Course Code	Title	Credit Hours	Course
PBG-501	PRINCIPLES OF GENETICS	3(2-1)	Major
PBG-503	PRINCIPLES AND METHODS OF PLANT BREEDING	3(2-1)	Major

Course Code	Title	Credit Hours	Course
PBG-505	CYTOGENETICS	3(2-1)	Major
PBG-507	PLANT ECOLOGY AND EVOLUTION	2(2-0)	Major
PBG-509	EXPERIMENTATION IN PLANT BREEDING	2(0-2)	Major
PBG-511	BIOINFORMATICS IN PLANT BREEDING	2(0-2)	Major
PBG-513	HYBRID SEED PRODUCTION TECHNOLOGY	3(2-1)	Major
	<b>Subtotal</b>	<b>18</b>	
PBG-515	INNOVATIONS IN PLANT BREEDING	2(1-1)	Elective Major
PBG-517	MUTATION BREEDING IN CROP PLANTS	2(1-1)	Elective Major
	<b>Total major credit hours</b>	<b>20</b>	
(Students will select one elective course)			

## Semester 6

Course Code	Title	Credit Hours	Course
PBG-502	MOLECULAR PLANT BREEDING	3(2-1)	Major
PBG-504	BREEDING FIBRE CROPS	3(2-1)	Major
PBG-506	BREEDING MINOR CROPS	2(1-1)	Major
PBG-508	BREEDING OILSEED CROPS	3(2-1)	Major
PBG-510	BREEDING CLIMATE RESILIENT CROPS	2(1-1)	Major
PBG-512	MANAGEMENT OF GERMPLASM RESOURCES	2(2-0)	Major
PBG-514	BIOMETRY	2(0-2)	Major
	<b>SubTotal Credit Hours</b>	<b>17</b>	
PBG-516	PRINCIPLES OF FRUIT AND TREE BREEDING	3(2-1)	Elective

Course Code	Title	Credit Hours	Course
PBG-518	BIOLOGICAL DATA SCIENCE	3(1-2)	Elective
	<b>Total major credit hours</b>	<b>20</b>	
(Students will select one elective course)			

**Semester 6**

Course Code	Title	Credit Hours	Course
PBG-601	BREEDING SUGAR CROPS	2(1-1)	Major
PBG-603	BREEDING CEREAL AND PULSES	3(2-1)	Major
PBG-605	VARIETY REGISTRATION AND IPRS	2(1-1)	Major
PBG-607	BREEDING FODDER AND FORAGE CROPS	2(1-1)	Major
PBG-609	BREEDING VEGETABLE CROPS	3(2-1)	Major
PBG-611	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	2(1-1)	Major
PBG-613	INTRODUCTION TO QUANTITATIVE GENETICS	2(0-2)	Major
PBG-615	PHENOMICS IN PLANT BREEDING	2(1-1)	Major
	<b>SubTotal Credit Hours</b>	<b>18</b>	
PBG-617	BIO-SAFETY MEASURES IN HANDLING GENETIC MATERIAL	2(1-1)	Elective
PBG-619	BREEDING MEDICINAL CROPS	2(1-1)	Elective
	<b>Total major credit hours</b>	<b>20</b>	
(Students will select one elective course)			

**Semester 8**

Course Code	Title	Credit Hours	Course
PBG-602	INTERNSHIP	3(0-3)	Major
PBG-604	CAPSTONE	3(0-3)	Major
	<b>Total major credit hours</b>	<b>6</b>	

**B.SC. (HONS.) AGRI. MAJOR PLANT PATHOLOGY****Semester 5**

Course Code	Title	Credit Hours	Course
PP-501	PLANT MYCOLOGY	3(2-1)	Major
PP-503	PLANT NEMATOLOGY	3(2-1)	Major
PP-505	PLANT PATHOGENIC PROKARYOTES	3(2-1)	Major
PP-507	PLANT VIROLOGY	3(2-1)	Major
	<b>Sub-Total Credit Hours</b>	<b>15</b>	
PP-509	MICROBIAL CULTURING, IDENTIFICATION AND PRESERVATION	3(1-2)	Major
PP-511	BIOLOGICAL CONTROL OF PLANT PATHOGENS	3(2-1)	Major
PP-513	GENESIS OF PHYTOPATHOLOGICAL CONCEPTS	2(2-0)	Major
	<b>Total Credit Hours</b>	<b>20</b>	
(Students will opt for 5 credit hours from elective courses)			

**Semester 6**

Course Code	Title	Credit Hours	Course
PP-502	DISEASES OF FIELD CROPS	4(3-1)	Major
PP-504	DISEASES OF HORTICULTURAL CROPS	3(2-1)	Major
PP-506	RANGE AND FOREST PATHOLOGY	2(1-1)	Major
PP-508	PLANT DISEASES EPIDEMIOLOGY	3(2-1)	Major
	<b>Sub-Total Credit Hours</b>	<b>15</b>	
PP-510	BIOLOGY AND CULTIVATION OF EDIBLE FUNGI	3(2-1)	Major
PP-512	HISTOPATHOLOGY OF DISEASED PLANTS	2(1-1)	Major
PP-514	BIOLOGICAL DATA SCIENCE	3(1-2)	Major
	<b>Total Credit Hours</b>	<b>20</b>	
(Students will opt for 5 credit hours from elective courses)			

**Semester 7**

Course Code	Title	Credit Hours	Course
PP-601	PLANT DISEASE MANAGEMENT	3(2-1)	Major
PP-603	DIAGNOSTIC PLANT PATHOLOGY	4(2-2)	Major
PP-605	POST-HARVEST PATHOLOGY	3(2-1)	Major
PP-607	PLANT RESISTANCE TO DISEASES	3(2-1)	Major
PP-609	MOLECULAR PLANT PATHOLOGY	<b>3(2-1)</b>	Major
PP-611	PREPARATION OF RESEARCH PROJECTS AND SCIENTIFIC WRITING	2(1-1)	Major
	<b>Total Credit Hours</b>	<b>18</b>	

Course Code	Title	Credit Hours	Course
PP-613	PLANT DISEASE ASSESSMENT	2(1-1)	Major
	<b>Total Credit Hours</b>	<b>20</b>	
(Students will opt for 2 credit hours from elective courses)			

**Semester 8**

Course Code	Title	Credit Hours	Course
PP-602	INTERNSHIP AND EXTERNAL EVALUATION	3(0-3)	Major
PP-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total major credit hours</b>	<b>6</b>	

**B.SC. (HONS.) AGRI. MAJOR SOIL SCIENCE****Semester 5**

Course Code	Title	Credit Hours	Course
SS-501	PHYSICAL PROPERTIES OF SOILS	3(2-1)	Major
SS-503	CHEMICAL PROPERTIES OF SOILS	3(2-1)	Major
SS-505	SOIL SURVEY	2(1-1)	Major
SS-507	INSTRUMENTATION AND LABORATORY TECHNIQUES	2(0-2)	Major
SS-509	APPLIED MATHEMATICS FOR SOIL SCIENCE	3(3-0)	Major
SS-513	MUNICIPAL WASTES AND ITS TRANSFORMATIONS	2(2-0)	Major
SS-515	SOIL FERTILITY EVALUATION	2(1-1)	Major
	<b>Major Sub-Total Credit Hours</b>	<b>17</b>	

Course Code	Title	Credit Hours	Course
SS-511	PLANT GROWTH UNDER STRESS ENVIRONMENT	3(3-0)	Elective Major
SS-517	MICROBIAL ECOLOGY AND PLANT GROWTH	3(3-0)	Elective Major
	<b>Total Credit Hours</b>	<b>20</b>	
(One Elective Major 3 CH will be selected by the students)			

### Semester 6

Course Code	Title	Credit Hours	Course
SS-502	SALT-AFFECTED SOILS AND WATER QUALITY	3(2-1)	Major
SS-504	SOIL FERTILITY AND FERTILIZER USE	3(2-1)	Major
SS-506	SOIL GENESIS AND MORPHOLOGY	3(2-1)	Major
Chem-501	PHYSICAL CHEMISTRY-I	3(2-1)	Interdisc.
SS-510	SOIL – WATER – PLANT RELATIONSHIPS	3(3-0)	Major
SS-512	SOIL CHEMISTRY AND PLANT GROWTH	3(3-0)	Major
	<b>Sub-Total Credit Hours</b>	<b>18</b>	
SS-514	GIS IN SOIL SURVEY AND LAND USE PLANNING	2(1-1)	Elective Major
SS-516	NUTRIENT MANAGEMENT IN DEGRADED SOILS	2(2-0)	Elective Major
	<b>Total Credit Hours</b>	<b>20</b>	
(One Elective Major 2 CH will be selected by the students)			

**Semester 7**

Course Code	Title	Credit Hours	Course
SS-601	SOIL MICROBIOLOGY AND BIOCHEMISTRY	3(2-1)	Major
SS-603	ENVIRONMENT POLLUTION AND MANAGEMENT	3(3-0)	Major
SS-605	SOIL AND WATER CONSERVATION	3(3-0)	Major
SS-609	ELEMENTS OF SOIL PHYSICS	3(3-0)	Major
SS-611	PREPARATION OF RESEARCH PROPOSAL AND SCIENTIFIC WRITING	2(1-1)	Major
SS-607	SALINE AGRICULTURE	2(2-0)	Major
SS-613	EXPERIMENTAL PLANNING	2(2-0)	Major
<b>Sub-Total Credit Hours</b>		<b>18</b>	
SS-615	Pollutant Movement in Soil	3(2-1)	Elective Major
SS-621	Land Degradation and Management	3(3-0)	Elective Major
<b>Total Credit Hours</b>		<b>21</b>	
(One Elective Major 2 CH will be selected by the students)			

**Semester 8**

Course Code	Title	Credit Hours	Course
SS-602	INTERNSHIP	3(0-3)	Major
SS-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total major credit hours</b>	<b>6</b>	

## B.SC. (HONS.) AGRI. MAJOR SEED SCIENCE & TECHNOLOGY

### Semester 5

Course Code	Title	Credit Hours	Offering Dept.	Course
SST-501	PRINCIPLES OF SEED SCIENCE	3(2-1)	PBG	Major
SST-503	PHYSIOLOGY OF SEED DEVELOPMENT	3(2-1)	AGR	Major
SST-505	SEED PRODUCTION OF FIELD CROPS	3(2-1)	PBG	Major
SST-507	SEED PRODUCTION OF TRANSGENIC CROPS	3(2-1)	PBG	Major
PBG-503	PRINCIPLES AND METHODS OF PLANT BREEDING	3(2-1)	PBG	Major
PBG-513	HYBRID SEED PRODUCTION TECHNOLOGY	3(2-1)	PBG	Major
<b>Total Credit Hours</b>		<b>18</b>		
PBG-509	EXPERIMENTATION IN PLANT BREEDING	2(0-2)	PBG	Elective Major
PBG-517	MUTATION BREEDING IN CROP PLANTS	2(1-1)	PBG	Elective Major
SS-515	SOIL FERTILITY EVALUATION	2(1-1)	SS	Elective Major
<b>Total Credit Hours</b>		<b>20</b>		
(Students will opt for 2 credit hours from elective major courses)				

### Semester 6

Course Code	Title	Credit Hours	Offering Dept.	Course
SST-502	PRINCIPLES OF SEED GENETICS	3(2-1)	PBG	Major
SST-504	SEED GERMINATION AND DORMANCY	3(2-1)	AGR	Major
SST-506	SEED CERTIFICATION AND REGISTRATION	2(1-1)	PBG	Major
SST-508	MATERNAL GENETICS AND SEED DORMANCY	2(2-0)	PBG	Major

Course Code	Title	Credit Hours	Offering Dept.	Course
MAB-516	SEED TRADE POLICIES AND REGULATIONS	2(2-0)	MAB	Elective Major
SST-512	BIOLOGICAL DATA SCIENCE	3(1-2)	PBG	Major
	<b>Total Credit Hours</b>	<b>15</b>		
ENT-508	STORED PRODUCTS PESTS & THEIR MANAGEMENT	3(2-1)	ENT	Elective Major
SST-510	BIOLOGICAL POTENTIAL OF VARIOUS CROPS	2(2-0)	PBG	Elective Major
FMP-512	SEED PROCESSING INDUSTRIES & THEIR MAINTENANCE	3(2-1)	FMP	Elective Major
SS-516	NUTRIENT MANAGEMENT IN DEGRADED SOILS	2(2-0)	SS	Elective Major
	<b>Total Credit Hours</b>	<b>20</b>		
(Students will opt for 5 credit hours from elective major courses)				

**Semester 7**

Course Code	Title	Credit Hours	Offering Dept.	Course
SST-601	SEED TESTING	3(1-2)	AGR	Major
SST-603	SEED STORAGE	3(2-1)	AGR	Major
PBG-605	VARIETY REGISTRATION AND IPRS	2(1-1)	PBG	Major
SST-607	SEED HEALTH AND VIGOUR	3(2-1)	PP	Major
SST-611	PREPARATION OF RESEARCH PROJECT & SCIENTIFIC WRITING	2(1-1)	PBG	Major
SST-615	BREEDING FOR SEED QUALITY TRAITS	2(1-1)	PBG	Major
	<b>Total Credit Hours</b>	<b>15</b>		
PP-601	PLANT DISEASE MANAGEMENT	3(2-1)	PP	Elective Major
MAB-617	SEED MARKETING AND LOGISTICS	3(3-0)	MAB	Elective Major

Course Code	Title	Credit Hours	Offering Dept.	Course
Hort-605	NURSERY PRODUCTION AND MANAGEMENT	3(2-1)	HORT.	Elective Major
PBG-617	BIO-SAFETY MEASURES IN HANDLING GENETIC MATERIAL	2(1-1)	PBG	Elective Major
Hort-615	PRINCIPLES OF FLOWERS AND VEGETABLE SEED PRODUCTION	2(1-1)	HORT.	Elective Major
ENT- 613	POST-HARVEST PROTECTION OF CEREALS	2(1-1)	ENT	Elective Major
	<b>Total Credit Hours</b>	<b>20</b>		
(Students will opt for 5 credit hours from elective major courses)				

### Semester 8

Course Code	Title	Credit Hours	Offering Dept.	Course
SST-602	INTERNSHIP	3(0-3)		Major
SST-604	CAPSTONE PROJECT	3(0-3)		Major
	<b>Total Credit Hours</b>	<b>6</b>		

## B.SC. (HONS.) AGRI. MAJOR MICROBIOLOGY

### Semester 5

Course Code	Title	Credit Hours	Course
MIC-501	IMMUNOLOGY	3(2-1)	Major
MIC-503	MICROBIAL GENETICS AND BIOTECHNOLOGY	3(2-1)	Major
MIC-505	BIOSAFETY AND BIOSECURITY IN MICROBIOLOGY RESEARCH	2(2-0)	Major
MIC-507	MYCOLOGY	3(2-1)	Major

Course Code	Title	Credit Hours	Course
MIC-509	BACTERIOLOGY	3(2-1)	Major
ANAT507	CELL BIOLOGY AND HISTOLOGY	3(2-1)	Allied
PATH-503	BASIC PATHOLOGY	3(1-2)	Allied
<b>Total Credit Hours</b>		<b>20(13-7)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
MIC-502	CELL CULTURE TECHNIQUES	1(0-1)	Major
MIC-504	MEDICAL MICROBIOLOGY	3(2-1)	Major
MIC-506	FUNDAMENTALS OF PUBLIC HEALTH MICROBIOLOGY	3(2-1)	Major
MIC-508	ONE HEALTH	3(2-1)	Major
MIC-510	LABORATORY ANIMAL PRACTICES	1(0-1)	Major
MIC-512	VIROLOGY	3(2-1)	Major
MIC-514	FOOD AND DAIRY MICROBIOLOGY	3(2-1)	Major
PARA-504	GENERAL PARASITOLOGY	3(2-1)	Allied
<b>Total Credit Hours</b>		<b>20(12-8)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
MIC-601	QUALITY CONTROL IN BIOLOGICS PRODUCTION	2(1-1)	Major
MIC-603	RESEARCH METHODOLOGY	2(2-0)	Major
MIC-605	VACCINOLOGY AND IMMUNODIAGNOSTICS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
MIC-607	INDUSTRIAL AND ENVIRONMENTAL MICROBIOLOGY	3(2-1)	Major
MIC-609	EPIDEMIOLOGY AND PUBLIC HEALTH	3(2-1)	Major
MIC-611	COMMUNITY HEALTH AND HYGIENE	2(2-0)	Major
MIC-613	DIAGNOSTIC MICROBIOLOGY	3(0-3)	Major
MIC-615	MICROBIAL GENOMICS	3(2-1)	Major
	<b>Total Credit Hours</b>	<b>21(13-8)</b>	

#### Semester 8

Course Code	Title	Credit Hours	Course
MIC-602	INTERNSHIP	3(0-3)	Major
MIC-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

## B.SC. (HONS.) AGRICULTURAL AND RESOURCE ECONOMICS (COMPOSITE) DEGREE PROGRAM

#### Semester 5

Course Code	Title	Credit Hours	Course
ARE-511	MICROECONOMICS	4(3-1)	Major
ARE-503	PRODUCTION ECONOMICS	4(3-1)	Major
ARE-505	INTRODUCTION TO ECONOMETRICS	3(2-1)	Major
ARE-507	PROJECT MANAGEMENT AND EVALUATION	3(3-0)	Major
ARE-513	AGRICULTURAL FINANCE	3(3-0)	Major

Course Code	Title	Credit Hours	Course
ARE-509	RESEARCH METHODS FOR ECONOMISTS	3(2-1)	Major
	<b>Total Credit Hours</b>	<b>20(16-4)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
ARE-512	MACROECONOMICS	4(3-1)	Major
ARE-502	AGRICULTURAL POLICIES: THEORY AND PRACTICE	4(3-1)	Major
ARE-504	DEVELOPMENT ECONOMICS	3(3-0)	Major
ARE-514	MATHEMATICAL ECONOMICS	3(3-0)	Major
MAB-520	FUNDAMENTALS OF AGRICULTURAL MARKETING	3(3-0)	Allied
ARE-516	INTERNATIONAL TRADE THEORY	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>20(18-2)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
ARE-601	FARM PLANNING AND BUDGETING	3(2-1)	Major
ARE-603	SOFTWARE APPLICATIONS IN ECONOMIC ANALYSIS	2(0-2)	Major
ARE-623	INTRODUCTION TO ENVIRONMENTAL ECONOMICS	3(3-0)	Major
MAJOR (ELECTIVE)	4 X 3	12	Major
	<b>Total Credit Hours</b>	<b>20(17-3)/ 20(16-4)/ 20(15-5)</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
ARE-612	INTERNSHIP	3(0-3)	Field experience/internship
ARE-614	CAPSTONE PROJECT	3(0-3)	Capstone project
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

**List of Optional Courses**

Optional Courses (7th Semester)		
Course code	Course Title	Credit Hours
ARE-605	ECONOMICS OF LIVESTOCK PRODUCTION	3(3-0)
ARE-607	ISLAMIC ECONOMICS	3(3-0)
ARE-609	RURAL DEVELOPMENT	3(3-0)
ARE-611	MANAGEMENT OF NATURAL RESOURCES	3(3-0)
ARE-613	ENVIRONMENT AND SUSTAINABLE DEVELOPMENT	3(3-0)
ARE-615	MANAGERIAL ECONOMICS	3(3-0)
ARE-617	LAND USE AND URBANIZATION	3(3-0)
ARE-619	RISK, UNCERTAINTY AND INSURANCE IN AGRICULTURE	3(3-0)
MAB-603	CONSUMER BEHAVIOR	3(3-0)
MAB-621	FUNDAMENTALS OF AGRICULTURAL PRICE ANALYSIS	3(3-0)
MKT-602	SOCIAL MEDIA MARKETING	3(2-1)
SOC-416	INTRODUCTION TO LOCAL GOVERNMENT SYSTEM	3(2-1)

**SUMMARY OF FIRST- FOUR SEMESTERS**

Major CH	36	After four semesters
General Education CH	30	Major CH
Allied courses CH	12	Allied Courses CH
<b>Total</b>	<b>78</b>	Internship and Capstone
		<b>Total</b>
		<b>66</b>

**Degree total** **78 + 66 = 144**

## **B.SC. (HONS.) ANIMAL SCIENCES DEGREE PROGRAM**

### **Semester 5**

Course Code	Title	Credit Hours	Course
ABG-501	PRINCIPLES OF HEREDITY	2(1-1)	Major
ABG-503	INTRODUCTORY MOLECULAR GENETICS	2(1-1)	Major
LM-501	MANAGEMENT OF DAIRY ANIMALS	2(1-1)	Major
AN-501	FUNDAMENTALS OF ANIMAL NUTRITION	2(1-1)	Major
AN-503	METABOLISM OF PRIMARY NUTRIENTS	2(1-1)	Major
PSci-501	INTRODUCTION TO POULTRY SCIENCE	2(1-1)	Major
PSci-503	INCUBATION PRINCIPLES AND HATCHERY MANAGEMENT	2(1-2)	Major
ANAT-501	INTRODUCTION TO VETERINARY ANATOMY	3(2-1)	Allied
PHYSIO-501	INTRODUCTION TO ANIMAL PHYSIOLOGY	3(2-1)	Allied
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
ABG-502	INTRODUCTORY POPULATION GENETICS	2(1-1)	Major
ABG-504	PRINCIPLES OF ANIMAL BREEDING	2(1-1)	Major
LM-502	RANGE LIVESTOCK PRODUCTION	2(1-1)	Major
LM-504	PRINCIPLES OF SMALL RUMINANT PRODUCTION	2(1-1)	Major
AN-502	MINERALS AND VITAMINS IN NUTRITION	2(1-1)	Major
AN-504	NUTRIENT REQUIREMENTS OF FARM ANIMALS	2(1-1)	Major
PSci-502	POULTRY FARM MANAGEMENT	2(1-1)	Major
PSci-504	POULTRY HOUSING AND EQUIPMENTS	2(1-1)	Major
MED-506	INTRODUCTION TO FARM ANIMAL HEALTH	3(2-1)	Allied
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
ABG-601	SELECTION FOR ECONOMIC TRAITS IN FARM ANIMALS	2(1-1)	Major
LM-601	PRINCIPLES OF MILK PRODUCTION	2(1-1)	Major
AN-601	PRINCIPLES OF POULTRY NUTRITION	2(1-1)	Major
PSci-601	POULTRY HYGIENE AND DISEASE PREVENTION	2(1-1)	Major
<b>Total Credit Hours</b>		<b>8</b>	

**List of Elective Courses**

(Students will take any four courses from the given list)

Course Code	Title	Credit Hours	Course
ABG-603	ANIMAL BREEDING PRACTICES	3(2-1)	Major Elective
ABG-605	BEEF BREEDING	3(2-1)	Major Elective
ABG-607	DAIRY ANIMAL BREEDING	3(2-1)	Major Elective
ABG-609	INTERNATIONAL ANIMAL BREEDING	3(3-0)	Major Elective
LM-603	PRINCIPLES OF MEAT PRODUCTION	3(2-1)	Major Elective
LM-605	DRAUGHT ANIMAL PRODUCTION	3(2-1)	Major Elective
LM-607	BEHAVIOR AND WELFARE OF FARM ANIMALS	3(2-1)	Major Elective
AN-603	FEEDING OF FARM ANIMALS	3(2-1)	Major Elective
AN-605	FEED EVALUATION, FORMULATION AND PROCESSING TECHNOLOGY	3(2-1)	Major Elective
PSci -603	POULTRY FEEDING PRACTICES	3(2-1)	Major Elective
AR-601	PHYSIOLOGY OF REPRODUCTION	3(2-1)	Allied Elective
<b>Total Credit Hours</b>		<b>12</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
AH-602	INTERNSHIP	3(0-3)	Major
AH-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**BS FORESTRY (4 YEARS DEGREE PROGRAM)****Semester 1**

Course Code	Title	Credit Hours	Course
AGR-301	BASIC AGRICULTURE	3(1-2)	Allied
FRW-301	INTRODUCTION TO FORESTRY	3(2-1)	Major
FRW-303	FUNDAMENTALS OF FOREST GENETICS AND BIO-TECHNOLOGY	2(1-1)	Allied
FRW-305	ORIENTATION TOUR	1(0-1)	Major
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES	3(2-1)	GE
BIO-301/ MATH-301	ESSENTIALS OF BIOLOGY (FOR PRE ENGG.)	3(2-1)	GE
	ELEMENTARY MATHEMATICS (FOR PRE MED.)	3(3-0)	
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ETHICS	2(2-0)	GE
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
FRW-302	RANGELAND ECOLOGY	2(1-1)	Major
FRW-304	BASICS OF WILDLIFE MANAGEMENT	2(1-1)	Major
FRW-306	FOREST ECONOMICS AND ENTERPRENURESHIP	3(3-0)	GE
FRW-308	GEOGRAPHIC INFORMATION SYSTEM AND REMOTE SENSING	2(1-1)	GE

Course Code	Title	Credit Hours	Course
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
ENT-302	FUNDAMENTALS OF ENTOMOLOGY	3(2-1)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
	<b>Total Credit Hours</b>	<b>19</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
FRW-403	BASICS OF SILVICULTURE	3(2-1)	Major
FRW-405	NON WOOD FOREST RESOURCES	3(2-1)	Major
FRW-407	ECOTOURISM AND PARK MANAGEMENT	2(1-1)	Major
FRW-409	FOREST PATHOLOGY	3(2-1)	Allied
SS-401	SOIL SCIENCE	3(2-1)	Allied
SEE-421	INTRODUCTION TO FOREST ENGINEERING	3(2-1)	Allied
Math-408	QUANTITATIVE REASONING-I	3(3-0)	GE
IS-402 SSH-403	QURAN TRANSLATION/ INTERFAITH HARMONY (NCC)	1(1-0)	Compulsory
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
FRW-404	PRINCIPLES OF AGRO-FORESTRY	2(1-1)	Major

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FRW-406	FUNDAMENTALS OF RANGE SCIENCE	3(2-1)	Major
FRW-408	FOREST ACCOUNTS AND PROCEDURES	2(2-0)	Major
FRW-410	FOREST TAXONOMY	2(1-1)	Allied
FRW-412	FORESTRY EXTENSION	2(1-1)	GE
FRW-414	STUDY TOUR (FOREST TYPES)	1(0-1)	Major
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
IS-403	ROHANIAT/ MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>19</b>	

### **Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FRW-501	APPLIED ECOLOGY AND SILVICULTURE	3(2-1)	Major
FRW-503	FORAGE PRODUCTION IN RANGELANDS	3(2-1)	Major
FRW-505	SOCIAL FORESTRY SYSTEMS	3(2-1)	Major
FRW-507	HYDROLOGY AND WATERSHED CONSERVATION	3(2-1)	Major
FRW-509	URBAN FORESTRY AND LANDSCAPE DESIGN	2(1-1)	Major
FRW-511	WILDLIFE OF PAKISTAN	3(2-1)	Major
FRW-513	FUNDAMENTALS OF FOREST MANAGEMENT	3(3-0)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
FRW-502	FOREST HARVESTING AND UTILIZATION	3(2-1)	Major
FRW-504	MOUNTAIN FORESTRY AND WATERSHED MANAGEMENT	3(2-1)	Major
FRW-506	FOREST BIOMETRICS	3(2-1)	Major
FRW-508	NURSERY RAISING TECHNIQUES	3(2-1)	Major
FRW-510	INTEGRATED MANAGEMENT OF DEGRADED LANDS	3(2-1)	Major
FRW-512	COMMERCIAL WILDLIFE FARMING	2(1-1)	Major
FRW-514	CLIMATE CHANGE AND CLEAN DEVELOPMENT MECHANISM	3(2-1)	Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
FRW-601	WOOD SCIENCE AND TECHNOLOGY	3(2-1)	Major
FRW-603	FOREST/RANGE/WILDLIFE POLICIES AND LAWS	3(3-0)	Major
FRW-605	RANGE LIVESTOCK NUTRITION	2(0-2)	Major
FRW-607	BIODIVERSITY AND ENVIRONMENT	3(2-1)	Major
FRW-609	PREPARATION OF FOREST MANAGEMENT PLAN	3(0-3)	Major
FRW-611	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	3(2-1)	Major
FRW-613	DESERTIFICATION AND ITS CONTROL	3(2-1)	Elective Major
FRW-615	BIOLOGICAL DATA SCIENCE	3(1-2)	Elective Major
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
FRW-602	INTERNSHIP	3(0-3)	Major
FRW-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**B.SC. (HONS.) ENVIRONMENTAL SCIENCE**

**Semester 1**

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
ES-301	INTRODUCTION TO ENVIRONMENTAL SCIENCE	3(3-0)	Major
ES-303	SOIL AND WATER POLLUTION	3(3-0)	Major
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE
*MATH-301/ *BIO-301	ELEMENTARY MATHEMATICS/ ESSENTIALS OF BIOLOGY	3(3-0) 3(2-1)	GE
ENG-313	COMPOSITION AND COMMUNICATION SKILLS / FUNCTIONAL ENGLISH	3(3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
	<b>Total Credit</b>	<b>17</b>	

\* Pre-engineering students will take Bio-301 while pre-medical students will take Math-301

**Semester 2**

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
ES-302	GEOLOGY, SOIL AND ENVIRONMENT	3(2-1)	Major
ES-304	ENVIRONMENTAL PROFILE OF PAKISTAN	3(3-0)	Major
ES-306	ENVIRONMENTAL LAWS AND POLICIES	2(2-0)	Major
PY-302	ENVIRONMENTAL PHYSICS	3(2-1)	Major/ Disciplinary
CHEM-306	BASIC CHEMISTRY	3(3-0)	Major/ Disciplinary
MATH-408	QUANTITATIVE REASONING (I)	3(3-0)	GE
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
<b>Total Credits</b>		<b>20</b>	

**Semester 3**

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
BIOTECH-401	BASICS OF MOLECULAR BIOLOGY AND GENETICS	2(2-0)	Major/ Disciplinary
IS-401/SSH-306	ISLAMIC STUDIES/ETHICS (FOR NON-MUSLIMS)	2(2-0)	GE
ARE-419	INTRODUCTION TO ENVIRONMENTAL ECONOMICS	3(3-0)	Allied
ES-403	PHILOSOPHY OF SUSTAINABLE ENVIRONMENT	3(3-0)	Major
IS-403	ROHANIAT	1(1-0)	(Audit)

Course Code	Title	Credit Hours	Course
STAT-408	QUANTITATIVE REASONING (II)	3(3-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
	<b>Total Credits</b>	<b>15</b>	

#### Semester 4

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
BIOTECH-401	BASICS OF MOLECULAR BIOLOGY AND GENETICS	2(2-0)	Major/ Disciplinary
IS-401/SSH-306	ISLAMIC STUDIES/ETHICS (FOR NON-MUSLIMS)	2(2-0)	GE
ARE-419	INTRODUCTION TO ENVIRONMENTAL ECONOMICS	3(3-0)	Allied
ES-403	PHILOSOPHY OF SUSTAINABLE ENVIRONMENT	3(3-0)	Major
IS-403	TARJMA TU QURAN	1(1-0)	(Audit)
STAT-408	QUANTITATIVE REASONING (II)	3(3-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
	<b>Total Credits</b>	<b>15</b>	

#### Semester 5

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
ES-501	ENVIRONMENTAL CHEMISTRY	3(2-1)	Major
ES-503	MUNICIPAL WASTE AND ITS TRANSFORMATIONS	2(2-0)	Major

Course Code	Title	Credit Hours	Course
ES-505	INSTRUMENTATION AND LABORATORY TECHNIQUES	3(2-1)	Major
ES-507	ENVIRONMENTAL GOVERNANCE	3(3-0)	Major
ES-509	AIR AND NOISE POLLUTION	2(2-0)	Major
ES-511	PSYCHOLOGY OF ENVIRONMENTAL SUSTAINABILITY	3(3-0)	Major
PHARM-503	ENVIRONMENTAL TOXICOLOGY	3(2-1)	Major/ Disciplinary
	<b>Total Credits</b>	<b>19</b>	

## Semester 6

Curriculum being followed/proposed at ISES

Course Code	Title	Credit Hours	Course
ES-514	PREPARATION OF RESEARCH PROPOSAL AND SCIENTIFIC WRITING	3(2-1)	Major
ES-512	GIS AND REMOTE SENSING	2(1-1)	Major
ES-502	ENVIRONMENTAL MANAGEMENT SYSTEMS	3(3-0)	Major
FRW-607	BIODIVERSITY AND ENVIRONMENT	3(2-1)	Allied
ES-504	ENVIRONMENTAL MICROBIOLOGY	3(2-1)	Major
ES-506	PUBLIC HEALTH AND ENVIRONMENT	3 (3-0)	Major
ES-518	BIOLOGICAL DATA SCIENCE	3(2-1)	Major
	<b>Total Credits</b>	<b>20</b>	

## **Semester 7**

Curriculum being followed/proposed at ISES

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ES-601	CLIMATE CHANGE AND ENVIRONMENT	2(2-0)	Major
SEE-606	ENVIRONMENTAL IMPACT ASSESSMENT	3(3-0)	Major/ Disciplinary
ARE-611	MANAGEMENT OF NATURAL RESOURCES	3(3-0)	Allied
RS-605	POPULATION, ENVIRONMENT AND DEVELOPMENT	3(2-1)	Allied
ES-603	EXPERIMENTAL PLANNING	2(2-0)	Major
ES-605	DISASTER RISK MANAGEMENT	3(2-1)	Major
SEE-607	INDUSTRIAL POLLUTION AND ITS CONTROL	3(2-1)	Allied
	<b>Total Credits</b>	<b>19</b>	

## **Semester 8**

Curriculum being followed/proposed at ISES

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ES-602	INTERNSHIP	3(0-3)	Major
ES-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credits</b>	<b>06</b>	

## BS BIOTECHNOLOGY

### Semester 1

Course Code	Title	Credit Hours	Course
BT-301	MOLECULAR CELL BIOLOGY	3(2-1)	Major
BT-303	BASICS OF MOLECULAR BIOLOGY AND GENETICS	3(3-0)	Major
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)	Allied
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES(ICT)	3(2-1)	GE
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GE
	<b>Total Credits</b>	<b>21</b>	

### Semester 2

Course Code	Title	Credit Hours	Course
BT-302	FUNDAMENTALS OF BIOTECHNOLOGY	3(3-0)	Major
BT-304	PLANT CELL TISSUE AND ORGAN CULTURE	3(1-2)	Major
MIC-302	BASIC MICROBIOLOGY	3(2-1)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
IS-403/SSH-404	ROHANIAT/MORAL PHILOSOPHY	NON-CREDIT	Compulsory

Course Code	Title	Credit Hours	Course
IS-402/SSH-403	TARJMA TUL QURAN/INTERFAITH HARMONY	NON-CREDIT	Compulsory
	<b>Total Credits</b>	<b>17</b>	

### Semester 3

Course Code	Title	Credit Hours	Course
BT-401	INTRODUCTION TO BIOINFORMATICS	3(2-1)	Major
BT-403	INTRODUCTION TO BIOSAFETY	3(3-0)	Major
ABG-301	PRINCIPLES OF HEREDITY	3(3-0)	Allied
MIC-401	IMMUNOLOGY	3(2-1)	Allied
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	GE
IS401/SSH-402	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
BT-405	TIME MANAGEMENT AND ORGANIZING SKILLS	2(0-2)	GE
	<b>Total Credits</b>	<b>18</b>	

### Semester 4

Course Code	Title	Credit Hours	Course
BT-402	VIRAL BIOLOGY AND PATHOGENESIS	3(2-1)	Major
BT-404	MOLECULAR GENETICS	3(2-1)	Major
BT-406	BASIC TECHNIQUES IN BIOTECHNOLOGY	3(0-3)	Major
BT-408	MOLECULAR FORENSICS	2(2-0)	Major
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE

Course Code	Title	Credit Hours	Course
EDU-306	CIVIC AND COMMUNITY ENGAGEMENT	2(2-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
CHIN-405	LEARNING CHINESE WITH ME	3(3-0)	Elective
<b>Total Credits</b>		<b>18</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
BT-501	MICROBIAL BIOTECHNOLOGY *This course will be offered in module with Institute of Microbiology	3(3-0)	Major
BT-503	ADVANCED TECHNIQUES IN BIOTECHNOLOGY	3(0-3)	Major
BT-505	BIOLOGICAL DATA SCIENCE *This course will be offered in module with Department of Math & Stat	3(1-2)	Major
BT-507	COMMAND LINE IN BIOTECHNOLOGY	2(0-2)	Major
BT-509	RECOMBINANT DNA TECHNOLOGY	4(3-1)	Major
SOC-303	GENDER STUDIES	3(3-0)	Elective
<b>Total Credits</b>		<b>18</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
BT-502	GENOMICS AND PROTEOMICS	3(2-1)	Major
BT-504	FOOD BIOTECHNOLOGY *This course will be offered in module with NIFSAT	3(3-0)	Major

Course Code	Title	Credit Hours	Course
BT-506	APPLICATIONS OF BIOTECHNOLOGY IN AGRICULTURE *This course will be offered in module with Institute of Animal and Dairy Science	3(3-0)	Major
BT-508	SCIENTIFIC COMMUNICATIONS	3(2-1)	Major
BT-510	GENETIC TRANSFORMATION	3(2-1)	Major
BT-512 BT-514 FRW-312	PRINCIPLES OF PLANT MOLECULAR PHYSIOLOGY or STRUCTURAL BIOINFORMATICS or ECOLOGY AND BIODIVERSITY	3(3-0) 3(2-1) 3(2-1)	Elective
	<b>Total Credits</b>	<b>18</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
BT-601	INDUSTRIAL BIOTECHNOLOGY	3(3-0)	Major
BT-603	HEALTH BIOTECHNOLOGY *This course will be offered in module with Faculty of Health and Pharmaceutical Sciences.	3(3-0)	Major
BT-605	NANOBIOTECHNOLOGY *This course will be offered in module with Department of Chemistry	3(3-0)	Major
BT-607	BIOSAFETY, BIOETHICS AND RISK ASSESSMENT	3(3-0)	Major
BT-609	ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGY *This course will be offered in module with CS department	3(2-1)	Major
BT-611	ENVIRONMENTAL BIOECHNOTLOGY	2(2-0)	Major
	<b>Total Credits</b>	<b>17</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
BT-602	INTERNSHIP	3(0-3)	Major
BT-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credits</b>	<b>6</b>	

**FACULTY OF SOCIAL SCIENCES****Summary**

General Education:	30
Major/Disciplinary Requirement:	76
Allied/interdisciplinary Requirement	22
Field Experience/Internship:	3
Capstone Project:	3
<b>Total</b>	<b>134</b>

**B.SC. (HONS.) AGRICULTURAL & RESOURCE ECONOMICS****Semester 1**

Course Code	Title	Credit Hours	Course
ARE-301	PRINCIPLES OF AGRICULTURAL AND RESOURCE ECONOMICS	3(3-0)	Major
ARE-303	INTRODUCTION TO PAKISTAN'S ECONOMY	3(3-0)	Major
AGR-301/ AGR304	BASIC AGRICULTURE/ WEED CONTROL METHODS (FOR F.SC. PRE-AGRI.)	3(1-2)	Allied
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
MATH-301/ BIO-301	ELEMENTARY MATHEMATICS / ESSENTIALS OF BIOLOGY	3(3-0)/ 3(2-1)	Allied
IS-405/PS-410	FEHM-E-QURAN-1/PHILOSOPHY OF ETHICS	1(0-1)	
	<b>Total Credit Hours</b>	<b>19(15-4)/ 19(14-5)</b>	

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ARE-302	MICROECONOMICS-I	3(3-0)	Major
HORT-302	FUNDAMENTAL HORTICULTURE	3(2-1)	Allied
ENT-302	FUNDAMENTALS OF ENTOMOLOGY	3(2-1)	Allied
AH-402	INTRODUCTION TO ANIMAL HUSBANDRY	3(2-1)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GE
IS-406/PS-411	FEHM-E-QURAN-1/SOCIETY AND ETHICS	1(0-1)	
	<b>Total Credit Hours</b>	<b>21(16-5)</b>	

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ARE-401	MICROECONOMICS-II	3(3-0)	Major

Course Code	Title	Credit Hours	Course
ARE-405	MACROECONOMICS-I	3(3-0)	Major
PBG-401	FUNDAMENTALS OF PLANT BREEDING AND GENETICS	3(2-1)	Allied
FMP-405	FARM MECHANIZATION	2(1-1)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
IS-402/ SSH-403	TARJUMA QURAN / INTERFAITH HARMONY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>18 (16-2)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
ARE-402	MACROECONOMICS-II	3(3-0)	Major
ARE-404	MATHEMATICAL ECONOMICS	3(3-0)	Major
ARE-406	AGRICULTURAL FINANCE	3(3-0)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING – II	3(3-0)	GE
IS-403	ROHANIAT / MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>18(17-1)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
ARE-501	INTRODUCTION TO ENVIRONMENTAL ECONOMICS	3(3-0)	Major
ARE-503	PRODUCTION ECONOMICS	4(3-1)	Major
ARE-505	INTRODUCTION TO ECONOMETRICS	3(2-1)	Major
ARE-507	PROJECT MANAGEMENT AND EVALUATION	3(3-0)	Major
ARE-515	LAND ECONOMICS	3(3-0)	Major
ARE-509	RESEARCH METHODS FOR ECONOMISTS	3(2-1)	Major
<b>Total Credit Hours</b>		<b>19 (16-3)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
ARE-502	AGRICULTURAL POLICIES: THEORY AND PRACTICE	4(3-1)	Major
ARE-504	DEVELOPMENT ECONOMICS	3(3-0)	Major
ARE-506	TIME SERIES ANALYSIS	3(2-1)	Major
ARE-508	HUMAN RESOURCE MANAGEMENT	3(3-0)	Major
MAB-520	FUNDAMENTALS OF AGRICULTURAL MARKETING	3(3-0)	Allied
ARE-516	INTERNATIONAL TRADE THEORY	3(3-0)	Major
<b>Total Credit Hours</b>		<b>19(17-2)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
ARE-601	FARM PLANNING AND BUDGETING	3(2-1)	Major

Course Code	Title	Credit Hours	Course
ARE-603	SOFTWARE APPLICATIONS IN ECONOMIC ANALYSIS	2(0-2)	Major
Optional Courses	4 x 3	12	Major
	<b>Total Credit Hours</b>	<b>17(14-3)/ 17 (13-4)/ 17(12-5)</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
ARE-602	INTERNSHIP	3(0-3)	Field Experience/ Internship
ARE-604	CAPSTONE PROJECT	3(0-3)	Capstone Project
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

**Optional Courses (7th Semester)**

Course Code	Title	Credit Hours
ARE-605	ECONOMICS OF LIVESTOCK PRODUCTION	3(3-0)
ARE-607	ISLAMIC ECONOMICS	3(3-0)
ARE-609	RURAL DEVELOPMENT	3(3-0)
ARE-611	MANAGEMENT OF NATURAL RESOURCES	3(3-0)
ARE-613	ENVIRONMENT AND SUSTAINABLE DEVELOPMENT	3(3-0)

Course Code	Title	Credit Hours
ARE-615	MANAGERIAL ECONOMICS	3(3-0)
ARE-617	LAND USE AND URBANIZATION	3(3-0)
ARE-619	RISK, UNCERTAINTY AND INSURANCE IN AGRICULTURE	3(3-0)
MAB-603	CONSUMER BEHAVIOR	3(3-0)
MAB-621	FUNDAMENTALS OF AGRICULTURAL PRICE ANALYSIS	3(3-0)
MKT-602	SOCIAL MEDIA MARKETING	3(2-1)
SOC-416	INTRODUCTION TO LOCAL GOVERNMENT SYSTEM	3(2-1)

### Summary

General Education:	32
Major/Disciplinary Requirement:	76
Allied/interdisciplinary Requirement	23
Field Experience/Internship:	3
Capstone Project:	3
<b>Total</b>	<b>137</b>

### Courses Offered to other Degree Programs

Course Code	Title	Credit Hours
AE-414	RESOURCE AND ENVIRONMENTAL ISSUE OF AGRARIAN ECONOMY	3(3-0)
AE-504	DAIRY BUDGETING AND ACCOUNTS MANAGEMENT	3(3-0)
AE-602	ECONOMICS FOR ENGINEERS	3(3-0)
AE-604	ENGINEERING ECONOMICS AND MANAGEMENT	3(3-0)
AE-607	MARKETING OF DAIRY ANIMAL AND PRODUCTS	3(3-0)
AE-306	INTRODUCTION TO AGRICULTUAL ECONOMICS	3(3-0)

Course Code	Title	Credit Hours
AE-410	PRINCIPLES OF FOREST AND RESOURCE ECONOMICS	3(3-0)
AE-505	LIVESTOCK ECONOMICS AND BUSINESS MANAGEMENT	2(2-0)
AE-507	PRINCIPLES OF DAIRY ECONOMICS	3(3-0)

## BS ECONOMICS

### Semester 1

Course Code	Title	Credit Hours	Course
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	General Education
ECON-301	PRINCIPLES OF MICROECONOMICS	3(3-0)	Major
AEE-323	INTRODUCTION TO EDUCATION	3(3-0)	Allied
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	General Education
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	General Education
ECON-303	INTRODUCTION TO PAKISTAN'S ECONOMY	3(3-0)	Major
IS-403	ROHANIAAT	0(1-0)	Non-Credit (COMPULSORY)
IS-405/PS-410	FEHM-E-QURAN-1/PHILOSOPHY OF ETHICS	1(0-1)	GE
<b>Total Credit Hours</b>		<b>19(17-3)</b>	

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ENG-314	EXPOSITORY WRITING	3(3-0)	General Education
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	General Education
ECON-302	PRINCIPLES OF MACROECONOMICS	3(3-0)	Major
COM-301	PRINCIPLES OF ACCOUNTING	3(3-0)	Allied
ECON-304	MATHEMATICAL ECONOMICS	3(3-0)	Major
ECON-306	RURAL DEVELOPMENT	3(3-0)	Major
IS-402	TARJUMA QURAN	1(1-0)	Non-Credit (COMPULSORY)
IS-406/PS-411	FEHM-E-QURAN-1/SOCIETY AND ETHICS	1(0-1)	GE
<b>Total Credit Hours</b>		<b>18(17-1)</b>	

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ECON-401	INTERMEDIATE MICROECONOMICS	3(3-0)	Major
COM-403	PRINCIPLES OF MANAGEMENT	3(3-0)	Allied
AEE-423	INTRODUCTION TO MASS COMMUNICATION	3(3-0)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	General Education
BMS-402	ENTERPRENUERSHIP	2(2-0)	General Education

Course Code	Title	Credit Hours	Course
IS-401/SSH-306	ISLAMIC STUDIES /ETHICS	2(2-0)	General Education
	<b>Total Credit Hours</b>	<b>16 (16-0)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
ECON-402	INTERMEDIATE MACROECONOMICS	3(3-0)	Major
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	General Education
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	General Education
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	General Education
SOC-416	INTRODUCTION TO LOCAL GOVERNMENT SYSTEM	3(2-1)	Allied
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	General Education
	<b>Total Credit Hours</b>	<b>15(13-2)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
ECON-501	MICROECONOMIC ANALYSIS	3(3-0)	Major
ECON-503	MONETARY ECONOMICS	3(3-0)	Major
ECON-505	PUBLIC FINANCE	3(3-0)	Major

Course Code	Title	Credit Hours	Course
ECON-509	ECONOMETRICS	3(3-0)	Major
ECON-507	LABOR ECONOMICS	3(3-0)	Major
ECON-511	GLOBAL ECONOMIC ISSUES	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>18 (18-0)</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
ECON-502	MACROECONOMIC ANALYSIS	3(3-0)	Major
ECON-504	INTERNATIONAL ECONOMICS	3(3-0)	Major
ECON-506	DEVELOPMENT ECONOMICS	3(3-0)	Major
ECON-508	FINANCIAL ECONOMICS	3(3-0)	Major
ECON-510	TIME SERIES AND PANEL DATA ANALYSIS	3(3-0)	Major
ECON-512	DIGITAL ECONOMICS	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>18(18-0)</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
ECON-601	RESEARCH METHODOLOGY	3(3-0)	Major
ECON-603	DYNAMIC OPTIMIZATION	3(3-0)	Major
ECON-605	ISLAMIC ECONOMICS	3(3-0)	Major
ECON-607	MANAGERIAL ECONOMICS	3(3-0)	Major
ECON-609	URBAN ECONOMICS	3(3-0)	Major

Course Code	Title	Credit Hours	Course
ECON-611	ECONOMIC POLICIES: THEORY AND PRACTICE	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>18(18-0)</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
ECON-602	INTERNSHIP	3(0-3)	Field Experience/ Internship
ECON-604	CAPSTONE PROJECT	3(0-3)	Capstone Project
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

**Summary**

General Education:	32
Major/Disciplinary Requirement:	75
Allied/interdisciplinary Requirement	15
Field Experience/Internship:	3
Capstone Project:	3
<b>Total</b>	<b>128</b>

**BS SOCIOLOGY****Semester 1**

Course Code	Title	Credit Hours	Course
SOC-301	FUNDAMENTALS OF SOCIOLOGY	3 (3-0)	Major

Course Code	Title	Credit Hours	Course
SOC-305	SOCIAL PROBLEMS	3 (2-1)	Major
SOC-307	SOCIAL WORK	3 (2-1)	Major
ENG-313	FUNCTIONAL ENGLISH	3 (3-0)	GE
CS-305	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)	3 (2-1)	GE
PY-307	FUNDAMENTAL OF NATURAL SCIENCES	3 (2-1)	GE
IS-403/ SSH-404	ROHANIAH / MORAL PHILOSOPHY	0 (1-0)	Non-credit (Compulsory)
	<b>Total Credit Hours</b>	<b>18 (14-4)</b>	

## Semester 2

Course Code	Title	Credit Hours	Course
SOC-302	INTRODUCTION TO ANTHROPOLOGY	3 (3-0)	Major
SOC-306	GENDER STUDIES	3 (3-0)	Major
SOC-308	SOCIAL MOBILIZATION	2 (1-1)	Major
ENG-314	EXPOSITORY WRITING	3 (3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2 (2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2 (2-0)	GE
ECON-305	INTRODUCTION TO PAKISTAN'S ECONOMY	3 (3-0)	Allied
IS-402/ SSH-403	TARJUMAH QURAN/ INTERFAITH HARMONY	0 (1-0)	Non-credit (Compulsory)
	<b>Total Credit Hours</b>	<b>18 (17-1)</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
SOC-401	GENERAL SOCIOLOGY	3 (3-0)	Major
SOC-403	INTRODUCTION TO SOCIAL RESEARCH	3 (2-1)	Major
MATH-408	QUANTITATIVE REASONING-I	3 (3-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES / BASIC ETHICS	2 (2-0)	GE
BMS-402	ENTREPRENEURSHIP	2 (2-0)	GE
AEE-423	INTRODUCTION TO MASS COMMUNICATION	3 (3-0)	Allied
RS-406	STUDY OF RELIGION	3 (3-0)	Allied
<b>Total Credit Hours</b>		<b>19 (18-1)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
SOC-404	DEVELOPMENT OF SOCIAL THOUGHTS	3 (3-0)	Major
SOC-410	HUMAN RESOURCE MANAGEMENT	3 (3-0)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2 (1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2 (2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3 (3-0)	GE
DHL-407	INTERNATIONAL RELATIONS AND GLOBALIZATION	3 (3-0)	Allied
HND-403	PUBLIC HEALTH NUTRITION	2 (2-0)	Allied
<b>Total Credit Hours</b>		<b>18 (17-1)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
SOC-501	QUANTITATIVE RESEARCH METHODS	3 (2-1)	Major
SOC-503	CLASSICAL SOCIOLOGICAL THEORIES	3 (3-0)	Major
SOC-505	SOCIAL PSYCHOLOGY	3 (3-0)	Major
SOC-507	INTRODUCTION TO POPULATION STUDIES	3 (2-1)	Major
SOC-509	SOCIOLOGY OF EDUCATION	3 (2-1)	Major
SOC-511	CRIMINOLOGY	3 (2-1)	Major
<b>Total Credit Hours</b>		<b>18 (14-4)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
SOC-502	CONTEMPORARY SOCIOLOGICAL THEORIES	3 (3-0)	Major
SOC-504	QUALITATIVE RESEARCH METHODS	3 (2-1)	Major
SOC-506	PROJECT PLANNING AND MANAGEMENT	3 (2-1)	Major
SOC-508	SOCIAL CHANGE	3 (3-0)	Major
SOC-510	SOCIOLOGY OF HEALTH	3 (2-1)	Major
SOC-512	COMMUNITY DEVELOPMENT	3 (2-1)	Major
<b>Total Credit Hours</b>		<b>18 (14-4)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
SOC-603	SOCIAL STATISTICS	3 (2-1)	Major

Course Code	Title	Credit Hours	Course
SOC-605	URBAN SOCIOLOGY	3 (2-1)	Major
SOC-607	SOCIOLOGY OF DEVELOPMENT	3 (3-0)	Major
SOC-609	NGO MANAGEMENT	3 (2-1)	Major
SOC-611	POLITICAL SOCIOLOGY	3 (2-1)	Major
SOC-613	SOCIOLOGY OF HUMAN RIGHTS	3 (2-1)	Major
	<b>Total Credit Hours</b>	<b>18 (13-5)</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
SOC-602	INTERNSHIP	3 (0-3)	Compulsory
SOC-604	CAPSTONE PROJECT	3 (0-3)	Compulsory
	<b>Total Credit Hours</b>	<b>6 (0-6)</b>	

### Summary of first four semesters:

Major CH	29
General Education CH	30
Allied courses CH	14
<b>Total</b>	<b>73</b>

### After four semesters

Major CH	54
Internship & Capstone	6
Total	60
<b>Degree Total</b>	<b>133</b>

**BACHELOR OF BUSINESS ADMINISTRATION**

(4-YEARS, 8-SEMESTERS MORNING/EVENING PROGRAM)

**Semester 1**

Course Code	Title	Credit Hours	Course
BBA-301	PRINCIPLES OF MANAGEMENT	3(3-0)	Major
BBA-303	FINANCIAL ACCOUNTING-I	3(3-0)	Major
MATH-300	BUSINESS MATHEMATICS	3(3-0)	Allied
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	General
ECON-301	PRINCIPLES OF MICROECONOMICS	3(3-0)	Allied
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	General
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
BBA-302	FINANCIAL ACCOUNTING-II	3(3-0)	Major
BBA-304	PRINCIPLES OF MARKETING	3(3-0)	Major
STAT-406	BUSINESS STATISTICS	3(3-0)	Allied
ECON-302	PRINCIPLES OF MACROECONOMICS	3(3-0)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	General
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	General
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	General
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
BBA-401	HUMAN RESOURCE MANAGEMENT	3(3-0)	Major
BBA-403	FUNDAMENTALS OF AGRIBUSINESS MANAGEMENT	3(3-0)	Major
BMS-402	ENTREPRENEURSHIP	2(2-0)	General
IS-401 OR SSH-306	ISLAMIC STUDIES OR ETHICS (FOR NON-MUSLIMS/ FOREIGNERS)	2(2-0)	General
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	General
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	General
IS-301 OR CHIN-405	ARABIC OR LEARN CHINESE WITH ME	3(3-0)/3(2-1)	Compulsory
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
BBA-402	INTRODUCTION TO BUSINESS FINANCE	3(3-0)	Major
BBA-404	MARKETING MANAGEMENT	3(3-0)	Major
BBA-406	MANAGEMENT INFORMATION SYSTEMS	3(2-1)	Major
BBA-408	COST AND MANAGEMENT ACCOUNTING	3(3-0)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	General
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	General
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	General
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
BBA-501	FINANCIAL MANAGEMENT	3(3-0)	Major
BBA-503	BUSINESS ETHICS	3(3-0)	Major
BBA-505	BUSINESS RESEARCH METHODS	3(3-0)	Major
<b>FINANCE SPECIALIZATION</b>			
FIN-501	FINANCIAL STATEMENT ANALYSIS	3(3-0)	Major (Specialization)
FIN-503	CORPORATE FINANCE	3(3-0)	Major (Specialization)
FIN-505	INTERNATIONAL FINANCE	3(3-0)	Major (Specialization)
<b>MARKETING SPECIALIZATION</b>			
MKT-501	ADVERTISING AND PROMOTION	3(3-0)	Major (Specialization)
MKT-503	SALES MANAGEMENT	3(3-0)	Major (Specialization)
MKT-505	BRAND MANAGEMENT	3(3-0)	Major (Specialization)
<b>HUMAN RESOURCE MANAGEMENT SPECIALIZATION</b>			
HRM-501	PERFORMANCE MANAGEMENT AND DEVELOPMENT	3(3-0)	Major (Specialization)
HRM-503	ORGANIZATION DYNAMICS AND DEVELOPMENT	3(3-0)	Major (Specialization)

Course Code	Title	Credit Hours	Course
HRM-505	LEADERSHIP AND TEAM MANAGEMENT	3(3-0)	Major (Specialization)
	<b>MANAGEMENT INFORMATION SYSTEM SPECIALIZATION</b>		
MIS-501	BUSINESS PROGRAMMING	3(2-1)	Major (Specialization)
MIS-503	BUSINESS DATABASE MANAGEMENT	3(2-1)	Major (Specialization)
MIS-505	SYSTEMS ANALYSIS AND DESIGN	3(2-1)	Major (Specialization)
	<b>Total Credit Hours</b>	<b>18</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
BBA-502	ORGANIZATIONAL BEHAVIOUR	3(3-0)	Major
BBA-504	BUSINESS AND CORPORATE LAW	3(3-0)	Major
	<b>FINANCE SPECIALIZATION</b>		
FIN-502	ISLAMIC FINANCE	3(3-0)	Major (Specialization)
FIN-504	CREDIT RISK MANAGEMENT	3(3-0)	Major (Specialization)
FIN-506	INVESTMENT ANALYSIS	3(3-0)	Major (Specialization)

Course Code	Title	Credit Hours	Course
	<b>MARKETING SPECIALIZATION</b>		
MKT-502	SOCIAL MEDIA MARKETING	3(3-0)	Major (Specialization)
MKT-504	SUPPLY CHAIN MANAGEMENT	3(3-0)	Major (Specialization)
MKT-506	SERVICES MARKETING	3(3-0)	Major (Specialization)
	<b>HUMAN RESOURCE MANAGEMENT SPECIALIZATION</b>		
HRM-502	INTERNATIONAL HUMAN RESOURCE MANAGEMENT	3(3-0)	Major (Specialization)
HRM-504	INTRODUCTION TO LABOR LAW	3(3-0)	Major (Specialization)
HRM-506	EMPLOYEE TRAINING AND DEVELOPMENT	3(3-0)	Major (Specialization)
	<b>MANAGEMENT INFORMATION SYSTEM SPECIALIZATION</b>		
MIS-502	OPERATING SYSTEMS	3(2-1)	Major (Specialization)
MIS-504	COMPUTER NETWORKS	3(2-1)	Major (Specialization)
MIS-506	SOFTWARE ENGINEERING	3(2-1)	Major (Specialization)
	<b>Total Credit Hours</b>	<b>15</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
BBA-601	BUSINESS POLICY AND STRATEGY	3(3-0)	Major
BBA-603	E-COMMERCE	3(2-1)	Major
BBA-605	INTERNATIONAL BUSINESS MANAGEMENT	3(3-0)	Major
	<b>FINANCE SPECIALIZATION</b>		
FIN-601	OPERATIONS OF BANKS AND FINANCIAL INSTITUTIONS	3(3-0)	Major (Specialization)
FIN-603	TAXATION THEORY AND PRACTICES	3(3-0)	Major (Specialization)
	<b>MARKETING SPECIALIZATION</b>		
MKT-601	INTERNATIONAL MARKETING	3(3-0)	Major (Specialization)
MKT-603	NEW PRODUCT DEVELOPMENT	3(3-0)	Major (Specialization)
	<b>HUMAN RESOURCE MANAGEMENT SPECIALIZATION</b>		
HRM-601	GREEN HUMAN RESOURCE MANAGEMENT	3(3-0)	Major (Specialization)
HRM-603	INTERNATIONAL HUMAN RESOURCE MANAGEMENT	3(3-0)	Major (Specialization)
	<b>MANAGEMENT INFORMATION SYSTEM SPECIALIZATION</b>		
MIS-601	ARTIFICIAL INTELLIGENCE (AI) FOR BUSINESS	3(2-1)	Major (Specialization)
MIS-603	WEB DEVELOPMENT AND MANAGEMENT	3(2-1)	Major (Specialization)

Course Code	Title	Credit Hours	Course
IS-403	ROHANIYAT	Non-Credit	Compulsory
	<b>Total Credit Hours</b>	<b>15</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
BBA-602	INTERNSHIP	3(0-3)	Major
BBA-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>06</b>	

## BS (COMMERCE)

(4-YEARS, 8-SEMESTERS MORNING/EVENING PROGRAM)

### Semester 1

Course Code	Title	Credit Hours	Course
COM-301	PRINCIPLES OF ACCOUNTING	3(3-0)	Major
COM-303	INTRODUCTION TO BUSINESS	3(3-0)	Major
ECON-301	PRINCIPLES OF MICROECONOMICS	3(3-0)	Allied
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	General
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	General
MATH-300	BUSINESS MATHEMATICS	3(3-0)	Allied
IS-405/PS-410	FEHM-E-QURAN-I / PHILOSOPHY OF ETHICS (FOR NON-MUSLIMS)	1(0-1) / 1(0-1)	General
SSH-302	PAKISTAN STUDIES	2(2-0)	General
	<b>Total Credit Hours</b>	<b>21</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
COM-302	FINANCIAL ACCOUNTING-I	3(3-0)	Major
STAT-406	BUSINESS STATISTICS	3(3-0)	Allied
ECON-302	PRINCIPLES OF MACROECONOMICS	3(3-0)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	General
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	General
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	General
IS-406/PS-411	FEHM-E-QURAN-II / SOCIETY AND ETHICS (FOR NON-MUSLIMS)	1(0-1) / 1(0-1)	General
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
COM-401	BUSINESS LAW	3(3-0)	Major
COM-403	PRINCIPLES OF MANAGEMENT	3(3-0)	Major
COM-405	FINANCIAL ACCOUNTING-II	3(3-0)	Major
IS-3010R CHIN-405	ARABIC OR LEARN CHINESE WITH ME	3(3-0) / 3(2-1)	Compulsory
BMS-402	ENTREPRENEURSHIP	2(2-0)	General
IS-401/ SSH-306	ISLAMIC STUDIES / ETHICS (FOR NON-MUSLIMS/ FOREIGNERS)	2(2-0)	General
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	General
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
COM-402	MONEY AND BANKING	3(3-0)	Major
COM-404	COST ACCOUNTING	3(3-0)	Major
COM-406	INTRODUCTION TO BUSINESS FINANCE	3(3-0)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	General
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	General
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	General
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	General
*IS-402	QURAN TRANSLATION (TARJUMATUL QURAN)	NON-CREDIT	
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
COM-501	PRINCIPLES OF MARKETING	3(3-0)	Major
COM-503	BUSINESS TAXATION	3(3-0)	Major
COM-505	PRINCIPLES OF AUDITING	3(3-0)	Major
COM-507	BUSINESS DATABASE MANAGEMENT	3(2-1)	Major
COM-509	SUPPLY CHAIN MANAGEMENT	3(3-0)	Major
COM-511	HUMAN RESOURCE MANAGEMENT	3(3-0)	Major
IS-403	ROHANIYAT	NON-CREDIT	Compulsory
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
COM-502	CORPORATE LAWS AND SECRETARIAL PRACTICES	3(3-0)	Major
COM-504	ORGANIZATIONAL BEHAVIOUR	3(3-0)	Major
COM-506	FINANCIAL MANAGEMENT	3(3-0)	Major
COM-508	LEADERSHIP AND TEAM MANAGEMENT	3(3-0)	Major
COM-510	MARKETING MANAGEMENT	3(3-0)	Major
COM-512	E-COMMERCE	3(2-1)	Major
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
COM-601	RESEARCH METHODS IN BUSINESS	3(2-1)	Major
COM-603	INTERNATIONAL TRADE	3(3-0)	Major
COM-605	CORPORATE GOVERNANCE	3(3-0)	Major
<b>ACCOUNTING SPECIALIZATION</b>			
ACC-607	PUBLIC SECTOR ACCOUNTING	3(3-0)	Major (Specialization)
ACC-609	FINANCIAL REPORTING AND DISCLOSURE PRACTICES-I	3(3-0)	Major (Specialization)
<b>FINANCE SPECIALIZATION</b>			
FIN-607	CORPORATE FINANCE	3(3-0)	Major (Specialization)

Course Code	Title	Credit Hours	Course
FIN-609	INVESTMENT AND PORTFOLIO MANAGEMENT	3(3-0)	Major (Specialization)
	<b>BANKING SPECIALIZATION</b>		
BNK-607	OPERATIONS OF BANKS AND FINANCIAL INSTITUTIONS	3(3-0)	Major (Specialization)
BNK-609	MARKETING OF FINANCIAL SERVICES	3(3-0)	Major (Specialization)
	<b>Total Credit Hours</b>	<b>15</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
COM-602	INTERNSHIP	3(0-3)	Major
COM-604	CAPSTONE PROJECT	3(0-3)	Major
COM-606	PUBLIC POLICY	3(3-0)	Major
	<b>ACCOUNTING SPECIALIZATION</b>		
ACC-608	FINANCIAL REPORTING AND DISCLOSURE PRACTICES-II	3(3-0)	Major (Specialization)
ACC-610	CONTEMPORARY ISSUES IN AUDITING	3(3-0)	Major (Specialization)
	<b>FINANCE SPECIALIZATION</b>		
FIN-608	FINANCIAL STATEMENTS ANALYSIS	3(3-0)	Major (Specialization)
FIN-610	INTERNATIONAL FINANCE	3(3-0)	Major (Specialization)

Course Code	Title	Credit Hours	Course
	<b>BANKING SPECIALIZATION</b>		
BNK-608	ISLAMIC BANKING	3(3-0)	Major (Specialization)
BNK-610	TREASURY MANAGEMENT	3(3-0)	Major (Specialization)
	<b>Total Credit Hours</b>	<b>15</b>	

## BBA (AGRIBUSINESS)

### Semester 1

Course Code	Title	Credit Hours	Course
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	General
AGR-301	BASIC AGRICULTURE	3(1-2)	Major
BBAA-301	PRINCIPLES OF MANAGEMENT	3(3-0)	Major
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	Allied
AEE-301	INTRODUCTION TO AGRICULTURAL EXTENSION	2(1-1)	Major
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	General
IS-405/PS-410	FEHM-E-QURAN-I / PHILOSOPHY OF ETHICS (FOR NON-MUSLIMS)	1(0-1) / 1(0-1)	General
	<b>Total Credit Hours</b>	<b>18</b>	

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ENT-304	GENERAL PLANT PROTECTION	3(2-1)	Major
ID-306	WATER MANAGEMENT	2(2-0)	Allied
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	General
ENG-314	EXPOSITORY WRITING	3(3-0)	General
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	General
HORT-302	FUNDAMENTAL HORTICULTURE	3(2-1)	Major
ES-302	GEOLOGY, SOIL AND ENVIRONMENT	3(2-1)	Major
IS-406/PS-411	FEHM-E-QURAN-II / SOCIETY AND ETHICS (FOR NON-MUSLIMS)	1(0-1) / 1(0-1)	General
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
LM-407	LIVESTOCK BUSINESS MANAGEMENT	3(2-1)	Allied
PSCI-407	POULTRY BUSINESS MANAGEMENT	3(2-1)	Allied
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	General
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	General
IS-401 OR SSH-306	ISLAMIC STUDIES OR ETHICS (FOR NON-MUSLIMS/ FOREIGNERS)	2(2-0)	General
BBAA-401	FUNDAMENTALS OF AGRIBUSINESS MANAGEMENT	3(3-0)	Major
<b>Total Credit Hours</b>		<b>17</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
ESE-404	ENERGY RESOURCES AND UTILIZATION	3(2-1)	Allied
FMP-405	FARM MECHANIZATION	3(2-1)	Allied
BBAA-402	PRINCIPLES OF MARKETING	3(3-0)	Major
BMS-402	ENTREPRENEURSHIP	2(2-0)	General
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	General
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	General
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	General
IS-402/SSH-403	QURAN TRANSLATION (TARJUMATUL QURAN)/ INTERFAITH HARMONY	NON-CREDIT	General
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
ARE-302	MICROECONOMICS-I	3(3-0)	Major
BBAA-501	PRINCIPLES OF ACCOUNTING	3(3-0)	Major
BBAA-503	WHOLESALE AND RETAIL MANAGEMENT	3(3-0)	Major
BBAA-505	MARKETING MANAGEMENT	3(3-0)	Major
BBAA-507	AGRIBUSINESS INFORMATION SYSTEM	3(3-0)	Major
BBAA-509	BUSINESS ETHICS	3(3-0)	Major
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ARE-406	MACROECONOMICS-I	3(3-0)	Major
BBAA-502	BUSINESS FINANCE	3(3-0)	Major
BBAA-504	RESEARCH METHODS IN AGRIBUSINESS	3(2-1)	Major
BBAA-506	AGRICULTURAL MARKETING	3(3-0)	Major
BBAA-508	HUMAN RESOURCE MANAGEMENT	3(3-0)	Major
BBAA-510	CONSUMER BEHAVIOUR	3(3-0)	Major
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
BBAA-601	AGRIBUSINESS INSTITUTIONS AND LEGISLATION	3(3-0)	Major
BBAA-603	INTERNATIONAL BUSINESS MANAGEMENT	3(3-0)	Major
BBAA-605	ORGANIZATIONAL BEHAVIOR	3(3-0)	Major
BBAA-607	AGRIBUSINESS POLICY	3(3-0)	Major
BBAA-609	AGRIBUSINESS VALUE CHAIN MANAGEMENT	3(3-0)	Major
BBAA-611	E-COMMERCE	3(2-1)	Major
IS-403	ROHANIYAT/MORAL PHILOSOPHY	NON-CREDIT	General
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
BBAA-602	INTERNSHIP	3(0-3)	Major
BBAA-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>06</b>	

**B.ED (HONS.)****Semester 1**

Course Code	Title	Credit Hours	Course
EDU-301	GENERAL METHODS OF TEACHING	3(2-1)	Major
EDU-303	PHILOSOPHICAL FOUNDATIONS OF EDUCATION	3(3-0)	Major
HE-403	LIFE SPAN DEVELOPMENT	3(2-1)	Allied
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)	GE
MATH-301	ELEMENTARY MATHEMATICS	3(3-0)	Allied
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GE
IS-405	FEHM-E-QURAN I (FOR MUSLIM STUDENTS)	1(0-1)	
PS-410	PHILOSOPHY OF ETHICS (FOR NON-MUSLIM STUDENTS)	1(0-1)	
	<b>Total Credit Hours</b>	<b>22 (17-5)</b>	

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
Edu-302	INTRODUCTION TO SCIENCE	3(2-1)	Major
Edu-304	METHODS OF TEACHING ISLAMIC STUDIES	3(3-0)	Major
CHEM-310	CHEMISTRY-I	3(2-1)	Allied
AEE-413	INTERVIEWING AND SPEECH COMMUNICATION	2(1-1)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	GE
IS-406	FEHM-E-QURAN II (FOR MUSLIM STUDENTS)	1(0-1)	
PS-411	SOCIETY AND ETHICS (FOR NON-MUSLIM STUDENTS)	1(0-1)	
<b>Total Credit Hours</b>		<b>19 (15-4)</b>	

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
EDU-401	TEACHING LITERACY SKILLS	3(3-0)	Major
EDU-403	TEACHING OF URDU	3(3-0)	Major
EDU-405	TEACHING OF GENERAL SCIENCE	3(3-0)	Major
EDU-407	ENGLISH III (TECHNICAL WRITING & PRESENTATION SKILLS)	3(2-1)	Major
HE-407	ART, CRAFT, AND CALLIGRAPHY	2(1-1)	GE
MATH-408	QUANTITATIVE REASONING I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE

Course Code	Title	Credit Hours	Course
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)	GE
	<b>Total Credit Hours</b>	<b>21 (19-2)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
EDU-402	CLASSROOM ASSESSMENT	3(3-0)	Major
EDU-404	SCHOOL, COMMUNITY AND TEACHER	3(3-0)	Major
EDU-406	TEACHING PRACTICE	3(0-3)	Major
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING – II	3 (3-0)	GE
AEE-411	PREPARATION OF RESEARCH PROJECT AND SCIENTIFIC WRITING	2(1-1)	Allied
IS-403	ROHANIAH / MORAL PHILOSOPHY	1(1-0) NC	Compulsory
	<b>Total Credit Hours</b>	<b>16 (12-4)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
EDU- 501	TEACHING METHODS OF ENGLISH	3(3-0)	Major
EDU-503	HOME ECONOMICS-I	3(2-1)	Major
EDU- 505	CURRICULUM DEVELOPMENT	3(3-0)	Major
EDU-507	EDUCATIONAL PSYCHOLOGY	3(2-1)	Major

Course Code	Title	Credit Hours	Course
EDU-509	PEDAGOGY-I (TEACHING OF PHYSICS)	3(2-1)	Major
AEE-503	ADULT LEARNING AND CONTINUING EDUCATION	3(3-0)	Allied
	<b>Total Credit Hours</b>	<b>18(15-3)</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
EDU-510	TEACHING METHODS OF MATHEMATICS	3(3-0)	Major
EDU-512	PEDAGOGY-II (METHODS OF TEACHING RELATED TO SPECIALIZATION)	3(3-0)	Major
EDU-514	CONTEMPORARY TRENDS AND ISSUES IN EDUCATION	3(3-0)	Major
EDU-516	COMPARATIVE EDUCATION	3(3-0)	Major
EDU-518	GUIDANCE AND COUNSELLING IN EDUCATION	3(3-0)	Major
EDU-520	INCLUSIVE EDUCATION	2(2-0)	Major
	<b>Total Credit Hours</b>	<b>17(17-0)</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
EDU-601	EARLY CHILDHOOD EDUCATION	3(2-1)	Major
EDU-603	RESEARCH METHODS IN EDUCATION	3(2-1)	Major
EDU-605	CLASSROOM AND SCHOOL MANAGEMENT	3(3-0)	Major
EDU-607	TEACHING PROFESSION	3(3-0)	Major
EDU-609	TEST DEVELOPMENT AND EVALUATION	3(2-1)	Major
AEE-614	DATA ANALYSIS FOR SOCIAL SCIENCES	2(0-2)	Allied

Course Code	Title	Credit Hours	Course
	<b>Total Credit Hours</b>	<b>17(12-5)</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
EDU-602	INTERNSHIP	3(0-3)	Major
EDU-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

**Summary of first- four semesters**

Major CH	= 33
General Education CH	= 30
Allied courses CH	= 13
<b>Total</b>	<b>= 76</b>

**After four semesters**

Major CH	= 54
Allied	= 05
Internship and Capstone	= 06
<b>Total</b>	<b>= 65</b>

**Degree total** = 76 + 65 = 141

## **BACHELOR OF BUSINESS ADMINISTRATION (BBA)**

**Semester 1**

Course Code	Title	Credit Hours	Course
ENG-301	COMPOSITION AND COMMUNICATION SKILLS	3(3-0)	General
BBA-301	FINANCIAL ACCOUNTING-I	3(3-0)	Major
BBA-303	ARABIC	3(3-0)	General

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
BBA-305	IT IN BUSINESS	3(2-1)	General
BBA-307	PRINCIPLES OF MICROECONOMICS	3(3-0)	Major
IS-401 OR SSH-402	ISLAMIC STUDIES OR ETHICS (FOR NON-MUSLIMS/ FOREIGNERS)	3(3-0)	General
<b>Total Credit Hours</b>		<b>18</b>	

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
BBA-302	FRESHMAN ENGLISH II	3(3-0)	General
SSH-302	PAKISTAN STUDIES	2(2-0)	General
BBA-304	HUMAN PSYCHOLOGY	3(3-0)	General
BBA-306	PRINCIPLES OF MACROECONOMICS	3(3-0)	Major
BBA-308	BUSINESS MATHEMATICS	3(3-0)	General
BBA-310	INTRODUCTION TO MANAGEMENT	3(3-0)	Major
<b>Total Credit Hours</b>		<b>17</b>	

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
BBA-401	MANAGEMENT INFORMATION SYSTEM (MIS)	3(2-1)	Major
BBA-403	BUSINESS STATISTICS	3(2-1)	General
BBA-405	PRINCIPLES OF MARKETING	3(3-0)	Major
BBA-407	FINANCIAL ACCOUNTING II	3(3-0)	Major

Course Code	Title	Credit Hours	Course
BBA-409	INTRODUCTION TO HRM	3(3-0)	Major
BBA-411	INTRODUCTION TO SOCIOLOGY	2(2-0)	General
	<b>Total Credit Hours</b>	<b>17</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
BBA-402	BUSINESS COMMUNICATION	3(2-1)	General
BBA-404	FUNDAMENTALS OF AGRIBUSINESS MANAGEMENT	3(3-0)	Major
BBA-406	INTRODUCTION TO BANKING	3(3-0)	Major
BBA-408	ENVIRONMENTAL SCIENCES	3(3-0)	General
BBA-410	PAKISTAN ECONOMICS	3(3-0)	General
BBA-412	BUSINESS FINANCE	3(3-0)	Major
	<b>Total Credit Hours</b>	<b>18</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
BBA-501	COST ACCOUNTING	3(3-0)	Major
BBA-503	MARKETING MANAGEMENT	3(3-0)	Major
BBA-505	ORAL COMMUNICATION AND PRESENTATION	2(1-1)	General
BBA-507	FINANCIAL MANAGEMENT	3(2-1)	Major
BBA-509	TAXATION THEORY AND PRACTICES	3(3-0)	General
	<b>ELECTIVE 1</b>	<b>3(3-0)</b>	<b>Specialization</b>

Course Code	Title	Credit Hours	Course
	<b>Total Credit Hours</b>	<b>17</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
BBA-502	BUSINESS ETHICS	2(2-0)	General
BBA-504	ORGANIZATIONAL BEHAVIOR	3(3-0)	Major
BBA-506	CONSUMER BEHAVIOR	3(3-0)	Major
BBA-508	BUSINESS AND CORPORATE LAW	3(3-0)	Major
BBA-510	ENTREPRENEURSHIP	3(3-0)	Major
	ELECTIVE 2	3(3-0)	Specialization
	<b>Total Credit Hours</b>	<b>17</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
BBA-601	BUSINESS RESEARCH AND REPORT WRITING	3(3-0)	Major
BBA-603	OPERATIONS MANAGEMENT	3(3-0)	Major
BBA-605	INTERNATIONAL BUSINESS MANAGEMENT	3(3-0)	Major
BBA-607	CONTEMPORARY WORLD	3(3-0)	General
BBA-609	LOGIC	2(2-0)	General
	ELECTIVE 3	3(3-0)	Specialization
	<b>Total Credit Hours</b>	<b>17</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
BBA-602	RESEARCH PROJECT	3(0-3)	Major
BBA-604	BUSINESS POLICY	3(3-0)	Major
BBA-606	TOTAL QUALITY MANAGEMENT	3(3-0)	Major
BBA-608	E-COMMERCE	3(3-0)	General
	ELECTIVE4	3(3-0)	Specialization
	<b>Total Credit Hours</b>	<b>15</b>	

### List of Elective Courses

Course Code	Title	Credit Hours
<b>BANKING AND FINANCE SPECIALIZATION</b>		
BBABF-511	MONEY AND BANKING	3(3-0)
BBABF-512	FINANCIAL STATEMENT ANALYSIS	3(2-1)
BBABF-601	CORPORATE FINANCE	3(3-0)
BBABF-602	ISLAMIC FINANCIAL SYSTEM	3(3-0)
BBABF-603	INTERNATIONAL FINANCIAL MANAGEMENT	3(3-0)
BBABF-604	INVESTMENT AND PORTFOLIO MANAGEMENT	3(2-1)
<b>MARKETING SPECIALIZATION</b>		
BBAMK-511	MARKETING RESEARCH	3(3-0)
BBAMK-512	INTERNATIONAL MARKETING	3(3-0)
BBAMK-601	ADVERTISING AND SALES PROMOTION	3(2-1)
BBAMK-602	WTO AGREEMENTS: IMPLICATIONS FOR DEVELOPING COUNTRIES	3(3-0)
BBAMK-603	SALES AND SELLING	3(3-0)

Course Code	Title	Credit Hours
BBAMK-604	SUPPLY CHAIN MANAGEMENT	3(3-0)
BBAMK-605	MARKETING OF SERVICES	3(3-0)
BBAMK-606	NEW PRODUCT DEVELOPMENT	3(2-1)
<b>HUMAN RESOURCE MANAGEMENT SPECIALIZATION</b>		
BBAHR-511	STRATEGIC HUMAN RESOURCE MANAGEMENT	3(3-0)
BBAHR-512	PERFORMANCE MANAGEMENT	3(3-0)
BBAHR-601	ORGANIZATION DEVELOPMENT	3(2-1)
BBAHR-602	CONFLICT AND NEGOTIATION MANAGEMENT	3(3-0)
BBAHR-603	CASE STUDIES IN HUMAN RESOURCE MANAGEMENT	3(3-0)
BBAHR-604	PERSONNEL TRAINING AND DEVELOPMENT	3(2-1)
BBAHR-606	LEADERSHIP AND TEAM MANAGEMENT	3(3-0)

## BS Criminology

### Semester 1

Course Code	Title	Credit Hours	Course
CRM-301	INTRODUCTION TO CRIMINOLOGY	3 (3-0)	Major
CRM-303	DEMOGRAPHIC HAZARDS	3 (3-0)	Major
SOC-305	SOCIAL PROBLEMS	3 (2-1)	Al-lied/ Interdisciplinary
ENG-313	FUNCTIONAL ENGLISH	3 (3-0)	GE

Course Code	Title	Credit Hours	Course
CS-305	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)	3 (2-1)	GE
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3 (2-1)	GE
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	0 (1-0)	Non-credit (Compulsory)
<b>Total Credit Hours</b>		<b>18 (15-3)</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
CRM-302	SOCIOLOGY OF DEVIANCE	3 (2-1)	Major
CRM-304	PEACE AND CONFLICT RESOLUTION	3 (3-0)	Major
CRM-306	PATTERNS OF CRIME	2 (2-0)	Major
ENG-314	EXPOSITORY WRITING	3 (3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2 (2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2 (2-0)	GE
ECON-303	INTRODUCTION TO PAKISTAN'S ECONOMY	3 (3-0)	Al-lied/ Interdisciplinary
IS-402/ SSH-403	TARJUMAH QURAN/INTERFAITH HARMONY	0 (1-0)	Non-credit (Compulsory)
<b>Total Credit Hours</b>		<b>18 (17-1)</b>	

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
CRM-401	CRIMINAL JUSTICE SYSTEM	3 (2-1)	Major
CRM-403	ENVIRONMENTAL CRIMINOLOGY	3 (3-0)	Major
MATH-408	QUANTITATIVE REASONING-I	3 (3-0)	GE
IS-401/SSH-306	ISLAMIC STUDIES / ETHICS	2 (2-0)	GE
BMS-402	ENTREPRENEURSHIP	2 (2-0)	GE
AEE-423	INTRODUCTION TO MASS COMMUNICATION	3 (3-0)	Al-lied/ Interdisciplinary
RS-405	GENDER AND DEVELOPMENT	3 (3-0)	Al-lied/ Interdisciplinary
<b>Total Credit Hours</b>		<b>19 (18-1)</b>	

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
CRM-402	THEORETICAL PERSPECTIVES ON CRIME AND CRIMINALS	3 (3-0)	Major
CRM-404	GENDER AND CRIME	3(3-0)	Major
CRM-406	JUVENILE DELINQUENCY	2 (2-0)	Major
FA-310	INTRODUCTION TO ART AND HUMANITIES	2 (2-0)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2 (2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3 (3-0)	GE

Course Code	Title	Credit Hours	Course
DHL-407	INTERNATIONAL RELATIONS AND GLOBALIZATION	3 (3-0)	Al-lied/ Interdisciplinary
	<b>Total Credit Hours</b>	<b>18 (17-1)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
CRM-501	RESEARCH METHODOLOGY	3 (2-1)	Major
CRM-503	ISLAMIC PERSPECTIVES ON CRIME AND PUNISHMENT	3 (3-0)	Major
CRM-505	CRIME AND SECURITY	3 (3-0)	Major
CRM-507	CORRECTIONAL INSTITUTIONS	3 (2-1)	Major
CRM-509	PENOLOGY	3 (2-1)	Major
CRM-511	FORENSIC CRIMINOLOGY	3 (2-1)	Major
	<b>Total Credit Hours</b>	<b>18 (14-4)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
CRM-502	POLICE AND POLICING	3 (3-0)	Major
CRM-504	RESEARCH DESIGN	3 (2-1)	Major
CRM-506	SOCIAL AND CRIMINAL PSYCHOLOGY	3 (3-0)	Major
CRM-508	VICTIMOLOGY	3 (2-1)	Major
CRM-510	DRUG ABUSE AND RELATED CRIME	3 (3-0)	Major
CRM-512	COMMUNITY JUSTICE AND CRIME PREVENTION	3 (2-1)	Major
	<b>Total Credit Hours</b>	<b>18 (15-3)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
CRM-601	STATISTICS FOR CRIMINOLOGISTS	3 (2-1)	Major
CRM-603	PROCEDURE AND EVIDENCE IN CRIMINAL LAW	3 (2-1)	Major
CRM-605	ORGANIZED CRIME AND MONEY LAUNDERING	3 (3-0)	Major
CRM-607	TERRORISM AND VIOLENCE	3 (3-0)	Major
CRM-609	CYBER CRIME	3 (2-1)	Major
CRM-611	CRIMINAL INVESTIGATION AND METHODS FOR ASSESSMENT	3 (2-1)	Major
<b>Total Credit Hours</b>		<b>18 (14-4)</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
CRM-601	INTERNSHIP	3 (0-3)	Compulsory
CRM-602	CAPSTONE PROJECT	3 (0-3)	Compulsory
<b>Total Credit Hours</b>		<b>6 (0-6)</b>	

**Summary of first four semesters**

Major CH	=28
General Education CH	=30
Allied courses CH	=15
<b>Total</b>	<b>=73</b>

**After four semesters**

Major CH	=54
Internship	=03
Capstone project	=03
<b>Total</b>	<b>=60</b>

**Degree Total 73+60=133**

## BS DEVELOPMENT STUDIES

### Semester 1

Course Code	Title	Credit Hours	Course
DS-301	INTRODUCTION TO DEVELOPMENT STUDIES	3(3-0)	Major Course
DS-303	POVERTY AND LIVELIHOODS	3(3-0)	Major Course
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)	GE
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GE
ECON-301	PRINCIPLES OF MICROECONOMICS	3(3-0)	Interdisciplinary
SOC-307	Social Work	3(2-1)	Interdisciplinary
IS-405	FEHM-E-QURAN I (FOR MUSLIM STUDENTS)	1(0-1)	
PS-410	PHILOSOPHY OF ETHICS (FOR NON-MUSLIM STUDENTS)	1(0-1)	
<b>Total Credit Hours</b>		<b>22(18-4)</b>	

### Semester 2

Course Code	Title	Credit Hours	Course
DS-302	Development and Human Rights	3(3-0)	Major Course
ENG-314	Expository Writing	3(3-0)	GE
SSH-303	Ideology and Constitution of Pakistan	2(2-0)	GE
SOC-311	Introduction to Sociology	2(2-0)	GE
ECON-302	PRINCIPLES OF MACROECONOMICS	3(3-0)	Interdisciplinary
AEE-613	INTERVIEWING AND SPEECH COMMUNICATION (2ND SEM.)	2(1-1)	Interdisciplinary

Course Code	Title	Credit Hours	Course
IS-406	FEHM-E-QURAN II (FOR MUSLIM STUDENTS)	1(0-1)	
PS-411	SOCIETY AND ETHICS (FOR NON-MUSLIM STUDENTS)	1(0-1)	
	<b>Total Credit Hours</b>	<b>16(14-2)</b>	

### Semester 3

Course Code	Title	Credit Hours	Course
DS-401	THEORIES OF DEVELOPMENT	3(3-0)	Major Course
DS-403	DEVOLUTION AND DEVELOPMENT	3(3-0)	Major Course
DS-405	POLITICAL ECONOMY OF AID AND DEVELOPMENT	3(3-0)	Major Course
DS-407	CONFLICTS, SOCIAL JUSTICE, AND DEVELOPMENT	3(3-0)	Major Course
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
	<b>Total Credit Hours</b>	<b>21(20-1)</b>	

### Semester 4

Course Code	Title	Credit Hours	Course
DS-402	POPULATION DYNAMICS AND DEVELOPMENT	2 (2-0)	Major Course
DS-404	HISTORICAL OVERVIEW OF DEVELOPMENT	2 (2-0)	Major Course
DS-406	DEMOGRAPHIC ISSUES IN DEVELOPMENT	3 (3-0)	Major Course

Course Code	Title	Credit Hours	Course
SOC-609	NGO MANAGEMENT	3(2-1)	Interdisciplinary
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING – II	3(3-0)	GE
IS-403	ROHANIAT/MORAL PHILOSOPHY	NCC	Compulsory
	<b>Total Credit Hours</b>	<b>15(14-1)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
DS-501/ SOC-306	GENDER STUDIES	3(3-0)	Major Course
DS-503	Migration & Development	3(3-0)	Major Course
DS-505	Food Security and Social Protection	3(3-0)	Major Course
DS-507	Monitoring, Evaluation and Analysis of Development Projects	3(2-1)	Major Course
DS-509	Rural Energy Resources and Development	3(3-0)	Major Course
DS-511	Tourism and Cultural Heritage	3(3-0)	Major course
	<b>Total Credit Hours</b>	<b>18(17-1)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
DS-504	Review of Rural Development Programs	3(2-1)	Major Course
DS-506/ SOC-512	Community Development	3(2-1)	Major Course
DS-508	Planning and Management of Regional Development	3(3-0)	Major Course

Course Code	Title	Credit Hours	Course
AEE-506	Human Resource Development in Agricultural Extension	4(4-0)	Interdisciplinary
EDU-514	Contemporary trends and issues in education (6th semester)	3(3-0)	Interdisciplinary
	<b>Total Credit Hours</b>	<b>16(14-2)</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
DS-601/ ARE-611	MANAGEMENT OF NATURAL RESOURCES	3(3-0)	Major Course
DS-603	INTRODUCTION TO MICROFINANCE	3(3-0)	Major Course
DS-605	COMMUNITY-BASED DISASTER MANAGEMENT PRACTICES	3(3-0)	Major Course
DS-607/ AEE-614	DATA ANALYTICS FOR SOCIAL SCIENCES	2(0-2)	Major Course
DS-609	PUBLIC POLICY FOR DEVELOPMENT	3(3-0)	Major Course
DS-611	RESEARCH METHODOLOGY IN DEVELOPMENT STUDIES	3(2-1)	Major Course
	<b>Total Credit Hours</b>	<b>17(14-3)</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
DS- 602	INTERNSHIP	3(0-3)	Internship
DS- 604	Capstone Project	3(0-3)	Capstone Project
	<b>Total Credit Hours</b>	<b>6(0-6)</b>	

## FACULTY OF AGRICULTURAL ENGINEERING & TECHNOLOGY

### B.SC. AGRICULTURAL ENGINEERING

#### Semester 1

Course Code	Title	Credit Hours
SEE-311	ENGINEERING DRAWING AND CAD	2(1-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
AGRON-301	BASIC AGRICULTURE	2(1-1)
CHEM-308	INTRODUCTION TO GENERAL CHEMISTRY (DEFICIENCY COURSE FOR ICS STUDENTS ONLY)	3(2-1) NCC
<b>Total Credit Hours</b>		<b>17</b>

#### Semester 2

Course Code	Title	Credit Hours
SEE-312	SURVEYING AND LEVELING	3(2-1)
SEE-314	ENGINEERING MATERIALS	2(1-1)
ID-322	FLUID MECHANICS	3(2-1)
FMP-304	METALLURGY AND WORKSHOP PRACTICES	2(1-1)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-401	ENGINEERING MECHANICS	3(2-1)
ID-421	PUMPS AND TUBEWELLS	2(1-1)
ID-423	SOIL MECHANICS	3(2-1)
FMP-407	MANUFACTURING ENGINEERING	2(1-1)
FMP-409	APPLIED THERMODYNAMICS	3(2-1)
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-402	MECHANICS OF MATERIALS	3(2-1)
FMP-404	ARTIFICIAL INTELLIGENCE(AI)	2(1-1)
FMP-410	IC ENGINES AND TRACTORS	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)

Course Code	Title	Credit Hours
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
SS-403	INTRODUCTION TO SOIL SCIENCE	2(1-1)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 5**

Course Code	Title	Credit Hours
SEE-523	ENVIRONMENTAL ENGINEERING	2(1-1)
ID-513	FARM IRRIGATION SYSTEMS	2(1-1)
ID-521	OPEN CHANNEL HYDRAULICS	3(2-1)
ID-525	ENGINEERING NUMERICAL ANALYSIS	2(2-0)
FMP-501	MACHINE DESIGN	3(2-1)
FMP-503	INSTRUMENTATION AND CONTROL	3(2-1)
STAT-513	ADVANCE STATISTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 6**

Course Code	Title	Credit Hours
SEE-522	AGRICULTURAL POLLUTION CONTROL TECHNOLOGIES	2(2-0)
ID-522	IRRIGATION ENGINEERING	3(2-1)
ID-526	ENGINEERING HYDROLOGY	2(1-1)
ID-528	PROJECT MANAGEMENT	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FMP-514	EARTH MOVING MACHINERY	2(1-1)
SEE-528	OCCUPATIONAL HEALTH AND SAFETY	1(1-0)
	MDE ELECTIVE-I (ENVIRONMENT)	3(2-1)
ARE-512	ECONOMICS FOR ENGINEERS	2(2-0)
	<b>Total Credit Hours</b>	<b>17</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-621	FARM WASTE MANAGEMENT	2(1-1)
ID-621	DRAINAGE ENGINEERING	2(1-1)
ID-623	GIS &REMOTE SENSING	3(2-1)
FMP-619	FARM MACHINERY AND AUTOMATION	3(2-1)
AENG-601	FINAL YEAR DESIGN PROJECT (FYDP)-I	3(0-3)
	ENGG ELECTIVE-I	2
IS-402/ SSH-403	QURAN TRANSLATION (TARJMA TULQURAN) / INTERFAITH HARMONY (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0) NCC
	<b>Total Credit Hours</b>	<b>15</b>

### **Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-626	FARM STRUCTURES AND CONTROL SHEDS	2(1-1)
FMP-602	AGRICULTURAL PROCESS ENGINEERING	3(2-1)

Course Code	Title	Credit Hours
AENG-602	FINAL YEAR DESIGN PROJECT (FYDP) -II	3(0-3)
	MDE ELECTIVE-II (ALTERNATE AND RENEWABLE ENERGY)	2(1-1)
	ENGG. ELECTIVE-II	3
	ENGG. ELECTIVE-III	3
IS-403	ROOHANIAT (ROHANIAT) (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0) NCC
	<b>Total Credit Hours</b>	<b>16</b>

### Allied/ Inter-disciplinary Courses

Course Code	Title	Credit Hours
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
STAT-513	ADVANCE STATISTICS	3(2-1)
AGRON-301	BASIC AGRICULTURE	2(1-1)
SS-403	INTRODUCTION TO SOIL SCIENCE	2(1-1)
ARE-512	ECONOMICS FOR ENGINEERS	2(2-0)

### Engineering Elective Courses

#### MDE ELECTIVE-I (ENVIRONMENT)

Course Code	Title	Credit Hours
SEE-524	WASTEWATER TREATMENT	3(2-1)
SEE-504	WATER SUPPLY AND SEWERAGE	3(2-1)

**MDE ELECTIVE-II (ALTERNATE AND RENEWABLE ENERGY)**

Course Code	Title	Credit Hours
ESE-616	SOLAR ENERGY FOR HIGH EFFICIENCY IRRIGATION SYSTEMS	2(1-1)
ESE-618	SOLAR THERMAL APPLICATIONS IN AGRICULTURE	2(1-1)
ESE-620	BIOENERGY ENGINEERING	2(1-1)

**ENGG ELECTIVE-I**

Course Code	Title	Credit Hours
SEE-519	ENVIRONMENTAL LAWS AND POLICIES	2(2-0)
SEE-623	RURAL ELECTRIFICATION	2(1-1)
SEE-625	QUANTITY SURVEY AND COST ESTIMATION	2(2-0)
FMP-619	PRECISION AGRICULTURE	2(1-1)
FMP-621	POST-HARVEST TECHNOLOGIES	2(1-1)
FMP-623	EMERGING FARM ENGINEERING SYSTEMS	2(1-1)
FMP-625	ENERGY IN AGRICULTURE	2(1-1)
ID-627	FARM WATER MANAGEMENT	2(1-1)
ID-629	SOIL DYNAMICS	2(1-1)

**ENGG ELECTIVE-II AND ENGG ELECTIVE-III**

Course Code	Title	Credit Hours
SEE-601	LANDSCAPE ENGINEERING	3(2-1)
SEE-602	WATER POLLUTION CONTROL	3(3-0)
SEE-609	ENVIRONMENTAL IMPACT ASSESSMENT	3(3-0)
SEE-610	CLEANER PRODUCTION TECHNIQUES	3(3-0)

Course Code	Title	Credit Hours
SEE-612	SUSTAINABLE ENVIRONMENT	3(3-0)
SEE-616	ENVIRONMENTAL MODELING AND SIMULATION	3(2-1)
FMP-608	ROBOTICS IN AGRICULTURE	3(2-1)
FMP-610	DESIGN OF AGRICULTURAL MACHINERY	3(2-1)
FMP-612	HYDRAULIC MACHINERY AND AUTOMATION	3(2-1)
FMP-614	AGRO-INDUSTRIAL ENGINEERING	3(2-1)
FMP-616	ELECTRONICS ENGINEERING	3(2-1)
FMP-618	BOILER ENGINEERING AND POWER PLANTS	3(2-1)
FMP-620	STANDARDS AND CODES FOR TESTING OF AGRICULTURAL MACHINERY	3(2-1)
ID-622	GROUNDWATER HYDROLOGY	3(2-1)
ID-624	WATER RESOURCES ASSESSMENT AND MANAGEMENT	3(2-1)
ID-626	SOIL AND WATER CONSERVATION	3(2-1)
ID-628	WATER QUALITY MANAGEMENT	3(2-1)

## B.SC. ENVIRONMENTAL ENGINEERING

### Semester 1

Course Code	Title	Credit Hours
SEE-301	ENGINEERING DRAWING GRAPHICS	2(1-1)
SEE-303	INTRODUCTION TO ENVIRONMENTAL ENGINEERING	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)

Course Code	Title	Credit Hours
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
CHEM-308	INTRODUCTION TO GENERAL CHEMISTRY (DEFICIENCY COURSE FOR ICS STUDENTS ONLY)	3(2-1) NCC
	<b>Total Credit Hours</b>	<b>18</b>

### Semester 2

Course Code	Title	Credit Hours
SEE-304	COMPUTER AIDED DESIGN	2(1-1)
SEE-312	SURVEYING AND LEVELING	3(2-1)
ID-322	FLUID MECHANICS	3(2-1)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
	<b>Total Credit Hours</b>	<b>15</b>

### Semester 3

Course Code	Title	Credit Hours
SEE-401	ENGINEERING MECHANICS	3(2-1)
CHEM-403	ENVIRONMENTAL CHEMISTRY	3(2-1)
ID-413	ENGINEERING HYDROLOGY AND CLIMATE CHANGE	3(2-1)
FMP-409	APPLIED THERMODYNAMICS	3(2-1)

Course Code	Title	Credit Hours
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)
MATH-408	QUANTITATIVE REASONING (I)	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 4**

Course Code	Title	Credit Hours
SEE-402	MECHANICS OF MATERIALS	3(2-1)
SEE-414	WATER TREATMENT	3(2-1)
FMP-404	ARTIFICIAL INTELLIGENCE(AI)	2(1-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
STAT-408	QUANTITATIVE REASONING (II)	3(3-0)
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
ZOOL-303	ECOSYSTEM MANAGEMENT	2(2-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 5**

Course Code	Title	Credit Hours
SEE-511	WASTEWATER ENGINEERING	3(2-1)
SEE-519	ENVIRONMENTAL LAWS AND POLICIES	2(2-0)
SEE-517	ENVIRONMENTAL MANAGEMENT SYSTEM IN INDUSTRY	2(1-1)
ID-525	ENGINEERING NUMERICAL ANALYSIS	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ID-511	REMOTE SENSING AND GIS	3(2-1)
STAT-513	ADVANCE STATISTICS	3(2-1)
MICRO-505	ENVIRONMENTAL MICROBIOLOGICAL TECHNIQUES	3(2-1)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-504	WATER SUPPLY AND SEWERAGE	3(2-1)
SEE-506	METEOROLOGY AND CLIMATE CHANGE	3(2-1)
SEE-516	SOLID WASTE ENGINEERING AND MANAGEMENT	3(2-1)
SEE-528	OCCUPATIONAL HEALTH AND SAFETY	1(1-0)
	MDE ELECTIVE-I	3
ID-528	PROJECT MANAGEMENT	2(2-0)
ARE-512	ECONOMICS FOR ENGINEERS	2(2-0)
	<b>Total Credit Hours</b>	<b>17</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SEE-609	ENVIRONMENTAL IMPACT ASSESSMENT	3(3-0)
SEE-611	RENEWABLE ENERGY AND ENVIRONMENT	3(3-0)
SEE-613	ENVIRONMENTAL ENGINEERING MATERIALS	3(2-1)
SEE-615	BIOLOGICAL ENVIRONMENTAL PROCESSES	3(2-1)

Course Code	Title	Credit Hours
SEE-619	FINAL YEAR DESIGN PROJECT-I	3(0-3)
	ENGG ELECTIVE-I	2
IS-402/ SSH-403	QURAN TRANSLATION (TARJMA TUL QURAN) / INTERFAITH HARMONY (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 8**

Course Code	Title	Credit Hours
SEE-604	CLEANER PRODUCTION TECHNOLOGY	2(2-0)
SEE-614	INDUSTRIAL AND HAZARDOUS WASTE MANAGEMENT	3(2-1)
SEE-622	AIR AND NOISE POLLUTION CONTROL	3(2-1)
SEE-620	FINAL YEAR DESIGN PROJECT -II	3(0-3)
	MDE ELECTIVE-II	2
	ENGG. ELECTIVE-II	3
IS-403	ROOHANIAT ( ROHANIAT) (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0)
	<b>Total Credit Hours</b>	<b>16</b>

**Allied/ Inter-disciplinary Courses**

Course Code	Title	Credit Hours
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
STAT-513	ADVANCE STATISTICS	3(2-1)

Course Code	Title	Credit Hours
CHEM-403	ENVIRONMENTAL CHEMISTRY	3(2-1)
MICRO-505	ENVIRONMENTAL MICROBIOLOGICAL TECHNIQUES	3(2-1)
ARE-512	ECONOMICS FOR ENGINEERS	2(2-0)

### List of Elective Courses

#### MDE Elective-I

Course Code	Title	Credit Hours
COURSE NO.	COURSE TITLE	Credit Hours
FMP-608	ROBOTICS IN AGRICULTURE	3(2-1)
FMP-616	ELECTRONICS ENGINEERING	3(2-1)
ID-624	WATER RESOURCES ASSESSMENT AND MANAGEMENT	3(2-1)
ID-626	SOIL AND WATER CONSERVATION	3(2-1)

#### MDE Elective-II

Course Code	Title	Credit Hours
ESE-616	SOLAR ENERGY FOR HIGH EFFICIENCY IRRIGATION SYSTEMS	2(1-1)
ESE-618	SOLAR THERMAL APPLICATIONS IN AGRICULTURE	2(1-1)
ESE-620	BIOENERGY ENGINEERING	2(1-1)
ID-627	FARM WATER MANAGEMENT	2(1-1)
FMP-619	PRECISION AGRICULTURE	2(1-1)
FMP-621	POST-HARVEST TECHNOLOGIES	2(1-1)

**ENGG ELECTIVE-I**

Course Code	Title	Credit Hours
SEE-522	AGRICULTURAL POLLUTION CONTROL TECHNOLOGIES	2(2-0)
SEE-623	RURAL ELECTRIFICATION	2(1-1)
SEE-625	QUANTITY SURVEYING COST ESTIMATION	2(2-0)
SEE-626	FARM STRUCTURES AND CONTROL SHEDS	2(1-1)

**ENGG ELECTIVE-II**

Course Code	Title	Credit Hours
SEE-601	LANDSCAPE ENGINEERING	3(2-1)
SEE-602	WATER POLLUTION CONTROL	3(3-0)
SEE-612	SUSTAINABLE ENVIRONMENT	3(3-0)
SEE-616	ENVIRONMENTAL MODELING	3(2-1)
SES-308	ENVIRONMENTAL MICROBIOLOGY	3(2-1)

**B.SC. ENERGY SYSTEMS ENGINEERING****Semester 1**

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-303	INTRODUCTION TO ENERGY SYSTEMS ENGINEERING	2(2-0)
SEE-301	ENGINEERING DRAWING AND GRAPHICS	2(1-1)
<b>GENERAL EDUCATION COURSES</b>		
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)

Course Code	Title	Credit Hours
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CS-305	APPLICATIONS TO INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
<b>DEFICIENCY/ COMPULSORY NON-CREDIT COURSE</b>		
CHEM-308	INTRODUCTION TO GENERAL CHEMISTRY (DEFICIENCY COURSE FOR ICS STUDENTS ONLY)	3(2-1)
	<b>Total Credit Hours</b>	<b>17(14-3)</b>

## Semester 2

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-306	INSTRUMENTATION CONTROL AND AUTOMATION	3(2-1)
SEE-304	COMPUTER AIDED DESIGN	2(1-1)
ID-322	FLUID MECHANICS	3(2-1)
ESE-308	ENERGY STORAGE TECHNOLOGIES	2(2-0)
<b>GENERAL EDUCATION COURSES</b>		
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2 - 0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
	<b>Total Credit Hours</b>	<b>17(14-3)</b>

**Semester 3**

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-401	BASIC ELECTRICAL CIRCUITS AND NETWORK ANALYSIS	3(2-1)
ESE-405	BOILER ENGINEERING	3(2-1)
FMP-409	APPLIED THERMODYNAMICS	3(2-1)
SEE-401	ENGINEERING MECHANICS	3(2-1)
<b>GENERAL EDUCATION COURSES</b>		
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
<b>ALLIED/ INTER-DISCIPLINARY COURSE</b>		
<b>Total Credit Hours</b>		<b>17(13-4)</b>

**Semester 4**

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-402	HEAT AND MASS TRANSFER	3(2-1)
ESE-404	I.C. ENGINES	3(2-1)
ESE-406	WIND AND HYDROPOWER CONVERSION	3(2-1)
<b>GENERAL EDUCATION COURSES</b>		
BMS-402	ENTREPRENEURSHIP	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)

Course Code	Title	Credit Hours
<b>ALLIED/ INTER-DISCIPLINARY COURSES</b>		
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
	<b>Total Credit Hours</b>	<b>17(14-3)</b>

### Semester 5

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-501	SOLAR ENERGY SYSTEMS	3(2-1)
ESE-503	POWER PLANTS ENGINEERING	3(2-1)
ESE-505	BASIC ELECTRONICS	3(2-1)
ESE-507	INTELLIGENT ENERGY SYSTEMS	3(2-1)
<b>ALLIED/ INTER-DISCIPLINARY COURSES</b>		
BBA-403	OPERATIONS MANAGEMENT	2(2-0)
STAT-513	ADVANCE STATISTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>17(12-5)</b>

### Semester 6

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-502	COMPUTATIONAL ANALYSIS OF SOLAR SYSTEMS	2(1-1)
ESE-504	BIO-ENERGY ENGINEERING	3(2-1)
ESE-506	HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS	3(2-1)

Course Code	Title	Credit Hours
ESE-508	POWER TRANSMISSION, DISTRIBUTION AND UTILIZATION	3(2-1)
ESE-510	MICROBIAL FUELS AND BIOENERGY	3(2-1)
<b>MULTIDISCIPLINARY ENGINEERING COURSES</b>		
	MDE ELECTIVE-I	3(2-1)
SEE-528	OCCUPATIONAL HEALTH AND SAFETY	1(1-0)
	<b>Total Credit Hours</b>	<b>18(12-6)</b>

**Semester 7**

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-601	ENERGY CONSERVATION AND AUDITING	3(3-0)
ESE-603	FINAL YEAR DESIGN PROJECT (FYDP)-I	3(0-3)
	ENGINEERING ELECTIVE-I	3(2-1)
	ENGINEERING ELECTIVE-II	3(3-0)
<b>MULTIDISCIPLINARY ENGINEERING COURSES</b>		
	MDE ELECTIVE-II	2(1-1)
<b>ALLIED/ INTER-DISCIPLINARY COURSE</b>		
CHEM-405	PHOTOACTIVE MATERIALS AND THEIR CHARACTERIZATION	3(2-1)
<b>DEFICIENCY/ COMPULSORY NON-CREDIT COURSE</b>		
IS-402/ SSH-403	QURAN TRANSLATION (TARJMA TUL QURAN) / INTERFAITH HARMONY	1(1-0)
	<b>Total Credit Hours</b>	<b>17(11-6)</b>

**Semester 8**

Course Code	Title	Credit Hours
<b>ENGINEERING COURSES</b>		
ESE-602	POWER ELECTRONICS	3(2-1)
ESE-604	ENERGY ECONOMICS, POLICY AND MANAGEMENT	2(2-0)
ESE-606	FINAL YEAR DESIGN PROJECT (FYDP) -II	3(0-3)
	ENGINEERING ELECTIVE-III	3(2-1)
	ENGINEERING ELECTIVE-IV	3(3-0)
<b>ALLIED/ INTER-DISCIPLINARY COURSE</b>		
PY-302	ENVIRONMENTAL PHYSICS	2(2-0)
<b>DEFICIENCY/ COMPULSORY NON-CREDIT COURSE</b>		
IS-403	ROOHANIA (ROHANIA) (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0)
	<b>Total Credit Hours</b>	<b>16(11-5)</b>

**Allied/ Inter-disciplinary Courses**

Course Code	Title	Credit Hours
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
STAT-513	ADVANCE STATISTICS	3(2-1)
BBA-403	OPERATIONS MANAGEMENT	2(2-0)
CHEM-405	PHOTOACTIVE MATERIALS AND THEIR CHARACTERIZATION	3(2-1)
PY-302	ENVIRONMENTAL PHYSICS	2(2-0)

## List of Engineering Elective Courses

### MDE ELECTIVE-I

Course Code	Title	Credit Hours
FMP-516	INDUSTRIAL ENGINEERING AND MANAGEMENT	3(2-1)
SEE-507	ENVIRONMENTAL MANAGEMENT SYSTEM IN INDUSTRY	3(2-1)

### MDE ELECTIVE-II

Course Code	Title	Credit Hours
FMP-627	ARTIFICIAL INTELLIGENCE AND ROBOTICS	2(1-1)
SEE-523	ENVIRONMENTAL ENGINEERING	2(1-1)
ID-421	PUMPS AND TUBEWELLS	2(1-1)

### ENGINEERING ELECTIVE-I

Course Code	Title	Credit Hours
ESE-605	RENEWABLE ENERGY SYSTEMS	3(2-1)
ESE-614	CONTROL SYSTEMS	3(2-1)
ESE-612	CLEAN COAL TECHNOLOGY	3(2-1)

### ENGINEERING ELECTIVE-II

Course Code	Title	Credit Hours
ESE-609	GEOTHERMAL AND TIDAL ENERGY	3(3-0)
ESE-610	NANO TECHNOLOGY AND ENERGY	3(3-0)
FMP-501	MACHINE DESIGN	3(3-0)

**ENGINEERING ELECTIVE-III**

Course Code	Title	Credit Hours
ESE-607	HYDROGEN AND FUEL CELLS	3(2-1)
ESE-611	FUELS AND COMBUSTION	3(2-1)
ESE-615	ELECTRICAL MACHINES	3(2-1)

**Engineering Elective-IV**

Course Code	Title	Credit Hours
ESE-613	PETROLEUM AND GAS EXPLORATION	3(3-0)
ESE-608	NUCLEAR ENERGY ENGINEERING	3(3-0)
SEE-609	ENVIRONMENTAL IMPACT ASSESSMENT	3(3-0)

**B.SC. TEXTILE ENGINEERING TECHNOLOGY**

**Semester 1**

Course Code	Title	Credit Hours
TET-301	INTRODUCTION TO TEXTILE TECHNOLOGY	2(2-0)
SEE-311	ENGINEERING DRAWING AND CAD	2(1-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
TET-302	TEXTILE RAW MATERIALS (PLANT ORIGIN)	<b>3(2-1)</b>
FMP-304	METALLURGY AND WORKSHOP PRACTICES	2(1-1)
CHEM-503	FUNDAMENTALS OF CHEMISTRY	3(3-0)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
TET-401	TEXTILE RAW MATERIALS (ANIMAL ORIGIN)	3(2-1)
TET-403	GINNING TECHNOLOGY	3(2-1)
TET-405	PRE-SPINNING PROCESSES-I	3(2-1)
TET-407	PRE-TREATMENT OF TEXTILES	3(2-1)
AGR-301	BASIC AGRICULTURE	2(1-1)
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
<b>Total Credit Hours</b>		<b>19</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
TET-402	WEAVING TECHNOLOGY	3(3-0)
TET-406	INTRODUCTION TO GARMENT TECHNOLOGY	3(2-1)
TET-408	PRE-SPINNING PROCESSES-II	3(2-1)
PBG-206	INTRODUCTION TO COTTON CROP	3(2-1)
PY-370	APPLIED ELECTRONICS	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
TET-501	YARN MANUFACTURING TECHNOLOGY	3(2-1)
TET-503	TEXTILE DYEING AND PRINTING	3(2-1)
TET-505	KNITTING TECHNOLOGY	3(2-1)
TET-507	TEXTILE TESTING AND QUALITY CONTROL	3(1-2)
TET-509	GARMENTS PRODUCTION MACHINERY	3(2-1)
TET-511	PROJECT & REPORT-I	2(0-2)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
TET-504	TEXTILE FINISHING	3(2-1)
TET-506	TOTAL QUALITY MANAGEMENT	3(3-0)
TET-508	SPINNING CALCULATIONS	3(3-0)
TET-510	SPECIALTY YARNS	3(3-0)
TET-512	PROJECT & REPORT-II	2(0-2)
SEE-510	ENVIRONMENTAL HEALTH AND SAFETY	3(3-0)
IS-403	ROOHANIAT (ROHANIAT) (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
	ELECTIVE COURSE-I	
	ELECTIVE COURSE-II	
	ELECTIVE COURSE-III	
	ELECTIVE COURSE-IV	
	ELECTIVE COURSE-V	
	ELECTIVE COURSE-VI	
	ELECTIVE COURSE-VII	
IS-402/ SSH-403	QURAN TRANSLATION (TARJMA TUL QURAN) / INTERFAITH HARMONY (DEFICIENCY/ COMPULSORY NON-CREDIT COURSE)	1(1-0)
<b>Total Credit Hours</b>		<b>16</b>

**Semester 8**

Course Code	Title	Credit Hours
TET-602	SUPERVISED INDUSTRIAL TRAINING	16(0-16)
	<b>Total Credit Hours</b>	<b>16</b>

**Allied/ Inter-disciplinary Courses**

Course Code	Title	Credit Hours
PBG-206	INTRODUCTION TO COTTON CROP	3(2-1)
PY-370	APPLIED ELECTRONICS	3(2-1)
AGRON-301	BASIC AGRICULTURE	2(1-1)
CHEM-503	FUNDAMENTALS OF CHEMISTRY	3(3-0)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)

**Textile Engineering Technology Elective Courses**

Course Code	Title	Credit Hours
TET-601	SYNTHETIC FIBRE PRODUCTION	2(2-0)
TET-603	HIGH PERFORMANCE FIBRES	2(2-0)
TET-605	NON-WOVEN AND TECHNICAL TEXTILES	3(3-0)
TET-607	ADVANCES IN SPINNING TECHNOLOGIES	3(3-0)
TET-611	DENIM PROCESSING TECHNOLOGY	3(2-1)
TET-613	FABRIC CALCULATIONS	3(3-0)
TET-615	INDUSTRIAL ENGINEERING IN GARMENT MANUFACTURING	3(2-1)

Course Code	Title	Credit Hours
ID-322	FLUID MECHANICS	3(2-1)
ESE-303	INTRODUCTION TO ENERGY SYSTEMS ENGINEERING	2(2-0)
FMP-402	INSTRUMENTATION AND CONTROL	3(2-1)

## B.SC. FOOD ENGINEERING

### Semester 1

Course Code	Title	Credit Hours
FE-301	INTRODUCTION TO FOOD ENGINEERING	2(2-0)
SEE-311	ENGINEERING DRAWING AND CAD	2(1-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
CHEM-308	INTRODUCTION TO GENERAL CHEMISTRY (FOR ICS STUDENTS ONLY)	3(2-1) NCC
<b>Total Credit Hours</b>		<b>17</b>

### Semester 2

Course Code	Title	Credit Hours
FE-302	FOOD PROCESS ENGINEERING	3(2-1)
FMP-304	MATERIALS AND METALLURGY	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ID-322	FLUID MECHANICS	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
	<b>Total Credit Hours</b>	<b>16</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FE-401	UNIT OPERATIONS IN FOOD ENGINEERING-I	3(2-1)
FE-403	FOOD BIOCHEMISTRY	3(2-1)
FST-401	FUNDAMENTALS OF HALAL FOODS	2(2-0)
FMP-409	APPLIED THERMODYNAMICS	3(2-1)
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0) NCC
	<b>Total Credit Hours</b>	<b>16</b>

### **Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FE-402	UNIT OPERATIONS IN FOOD ENGINEERING -II	3(2-1)

Course Code	Title	Credit Hours
ESE-402	HEAT AND MASS TRANSFER	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
IT-408	PROGRAMMING LANGUAGES	3(2-1)
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
STAT-408	QUANTITATIVE REASONING - II	3 (3-0)
IS-403	ROHANIAT /MORAL PHILOSOPHY	1(1-0) NC
<b>Total Credit Hours</b>		<b>17</b>

**Semester 5**

Course Code	Title	Credit Hours
FE-501	FOOD PACKAGING	3(2-1)
FE-503	FOOD WASTE MANAGEMENT	2(2-0)
FE-505	ARTIFICIAL INTELLIGENCE IN FOOD INDUSTRIES	3(2-1)
FE-507	MACHINE DESIGN FOR FOOD INDUSTRIES	3(2-1)
FST-501	FOOD MICROBIOLOGY AND BIOTECHNOLOGY	3(2-1)
ID-525	ENGINEERING NUMERICAL ANALYSIS	2(2-0)
SEE-528	OCCUPATIONAL HEALTH AND SAFETY	1(1-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 6**

Course Code	Title	Credit Hours
FE-502	ENGINEERING PROPERTIES OF FOODS	3(2-1)
FE-504	MATERIAL AND ENERGY BALANCE	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FE-506	TRANSPORT PHENOMENON	2(2-0)
FE-508	POST-HARVEST ENGINEERING	3(2-1)
CS-506	BIG DATA ANALYSIS	3(2-1)
FST-502	FOOD ANALYSIS AND SENSORY EVALUATION	3(2-1)
	<b>Total Credit Hours</b>	<b>17</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FE-601	FINAL YEAR DESIGN PROJECT-I	3(0-3)
FE-603	FOOD PLANT LAYOUT AND DESIGN	3(2-1)
FE-605	SCIENTIFIC WRITINGS AND PROJECT MANAGEMENT	3(2-1)
	FE- ELECTIVE-I	3
FST-603	CEREAL TECHNOLOGY	3(2-1)
	MDE ELECTIVE I	3
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FE-602	FINAL YEAR DESIGN PROJECT-II	3(0-3)
FE-604	FOOD QUALITY CONTROL & ASSURANCE	3(3-0)
FE-606	MEAT PROCESS ENGINEERING	3(2-1)
FE-608	FOOD REGULATIONS AND LEGISLATIONS	2(2-0)

Course Code	Title	Credit Hours
	FE- ELECTIVE-II	3
	MDE ELECTIVE II	3
	<b>Total Credit Hours</b>	<b>17</b>

### ALLIED/ INTER-DISCIPLINARY COURSES

Course Code	Title	Credit Hours
FST-501	FOOD MICROBIOLOGY AND BIOTECHNOLOGY	3(2-1)
FST-502	FOOD ANALYSIS AND SENSORY EVALUATION	3(2-1)
FST-603	CEREAL TECHNOLOGY	3(2-1)
MATH-406	DIFFERENTIAL EQUATIONS	3(3-0)
CS-506	BIG DATA ANALYSIS	3(2-1)

### ENGINEERING ELECTIVE COURSES

Course Code	Title	Credit Hours
<b>Engineering Elective-I</b>		
FE-607	SEPARATION PROCESSES	3(3-0)
FE-609	FOOD SAFETY & QUALITY MANAGEMENT	3(3-0)
FE-611	NUTRITIONAL ENGINEERING	3(3-0)
FE-613	FOOD STORAGE & PRESERVATION	3(2-1)
<b>ENGINEERING ELECTIVE-II</b>		
FE-610	ENZYMES AND BIOREACTIONS	3(2-1)
FE-612	DAIRY AND BEVERAGES PROCESSING	3(2-1)

Course Code	Title	Credit Hours
FE-614	PRODUCT DESIGN AND FORMULATION	3(2-1)
FE-616	MANUFACTURING EXCELLENCE	3(3-0)

**MDE Elective-I**

Course Code	Title	Credit Hours
FMP-611	MANUFACTURING AND REVERSE ENGINEERING	3(2-1)
SEE-609	ENVIRONMENTAL IMPACT	3(3-0)
FMP-402	PROCESS CONTROL & INSTRUMENTATION	3(2-1)

**MDE Elective-II**

Course Code	Title	Credit Hours
FMP-606	INDUSTRIAL SAFETY AND MAINTENANCE MANAGEMENT	3(2-1)
SEE-610	CLEANER PRODUCTION TECHNOLOGY	3(3-0)
SEE-310	ENGINEERING MECHANICS	3(3-0)

## FACULTY OF VETERINARY SCIENCES

### DOCTOR OF VETERINARY MEDICINE (DVM)

#### Semester 1

Course Code	Title	Credit Hours
ANAT-301	VETERINARY ANATOMY - I	3(1-2)
ANAT-303	GENERAL VETERINARY HISTOLOGY	3(2-1)
PHYSIO-301	VETERINARY PHYSIOLOGY - I	3(2-1)
BIOCHEM-306	BIOCHEMISTRY	4(3-1)
MATH-400	MATHEMATICS	2(2-0)
ENG-303	ENGLISH- I (FUNCTIONAL ENGLISH)	2(2-0)
MED-301	ANIMAL WELFARE AND ETHICS	2(2-0)
IS-401/ SSH-402	ISLAMIC STUDIES/ ETHICS	3(3-0)
	<b>Total Credit Hours</b>	<b>22(17-5)</b>

#### Semester 2

Course Code	Title	Credit Hours
ANAT-302	VETERINARY ANATOMY - II	3(1-2)
ANAT-304	SYSTEMIC VETERINARY HISTOLOGY AND EMBRYOLOGY	3(2-1)
PHYSIO-302	VETERINARY PHYSIOLOGY - II	4(3-1)
ENG-304	ENGLISH- II (COMMUNICATION SKILLS)	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MICRO-302	GENERAL VETERINARY MICROBIOLOGY	3(2-1)
PSCI-302	INTRODUCTION TO POULTRY PRODUCTION	1(1-0)
LM-302	FUNDAMENTALS OF LIVESTOCK PRODUCTION	2(1-1)
SSH-301	PAKISTAN STUDIES: PAST AND PRESENT	1(1-0)
IS-402	QURAN TRANSLATION	1(1-0)
	<b>Total Credit Hours</b>	<b>20(14-6)</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
AN-403	PRINCIPLES OF ANIMAL NUTRITION	3(2-1)
PHARM-401	GENERAL AND SYSTEMIC PHARMACOLOGY	4(3-1)
PATH-401	GENERAL VETERINARY PATHOLOGY	4(3-1)
PARA-401	GENERAL VETERINARY PARASITOLOGY AND PROTOZOOLOGY	3(2-1)
MICRO-401	VETERINARY IMMUNOLOGY	2(1-1)
MICRO-403	MOLECULAR BIOLOGY	2(1-1)
MED-401	LAB AND ZOO ANIMAL MANAGEMENT	1(0-1)
ANTHRO-301	ANTHROPOLOGY	1(1-0)
IS-403	ROHANIAAT	1(1-0)
	<b>Total Credit Hours</b>	<b>21(14-7)</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
AN-402	LIVESTOCK FEED RESOURCES AND FORAGE CONSERVATION	3(2-1)
PHARM-402	VETERINARY CHEMOTHERAPY AND TOXICOLOGY	4(3-1)
MICRO-402	VETERINARY BACTERIOLOGY AND MYCOLOGY	3(2-1)
PATH-402	SYSTEMIC VETERINARY PATHOLOGY	3(2-1)
ABG-402	ANIMAL BREEDING AND GENETICS - I	2(1-1)
PARA-402	VETERINARY HELMINTHOLOGY	4(3-1)
<b>Total Credit Hours</b>		<b>19(13-6)</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
AN-505	POULTRY NUTRITION AND FEED TECHNOLOGY	2(1-1)
ABG-507	ANIMAL BREEDING AND GENETICS - II	3(2-1)
PATH-501	VETERINARY CLINICAL PATHOLOGY	1(0-1)
PARA-501	VETERINARY ENTOMOLOGY AND ACAROLOGY	3(2-1)
MICRO-501	VETERINARY VIROLOGY	3(2-1)
THERIO-501	VETERINARY REPRODUCTIVE PHYSIOLOGY	3(2-1)
MED-501	VETERINARY INTERNAL MEDICINE - I	3(3-0)
ARE-515	LIVESTOCK ECONOMICS AND BUSINESS MANAGEMENT	2(2-0)
MICRO-503	BIORISK SAFETY AND MANAGEMENT	2(1-1)
<b>Total Credit Hours</b>		<b>22(15-7)</b>

**Semester 6**

Course Code	Title	Credit Hours
MICRO-506	ZOONOSES AND FOOD SAFETY	3(2-1)
LM-510	PRINCIPLES OF DAIRY PRODUCTION	3(2-1)
THERIO-502	OBSTETRICS AND GENITAL DISEASES	3(2-1)
MED-502	VETERINARY INTERNAL MEDICINE – II	3(3-0)
PATH-506	MEAT INSPECTION AND NECROPSY PRACTICE	3(2-1)
SURG-502	DIAGNOSTIC IMAGING	2(1-1)
MED-504	MEDICINE CLINIC - I	1(0-1)
SURG-504	SURGERY CLINIC - I	1(0-1)
THERIO-504	THERIOGENOLOGY CLINIC - I	1(0-1)
<b>Total Credit Hours</b>		<b>20(12-8)</b>

**Semester 7**

Course Code	Title	Credit Hours
LM-613	BEEF AND MUTTON PRODUCTION	2(1-1)
MED-601	VETERINARY INTERNAL MEDICINE – III	3(3-0)
SURG-601	ANAESTHESIOLOGY AND INTENSIVE CARE	1(0-1)
THERIO-601	REPRODUCTIVE BIOTECHNOLOGY	2(2-0)
PSCI-605	COMMERCIAL POULTRY PRODUCTION	2(1-1)
STAT-400	BIO-STATISTICS	3(2-1)
MED-603	MEDICINE CLINIC - II	1(0-1)
SURG-603	SURGERY CLINIC - II	1(0-1)

Course Code	Title	Credit Hours
THERIO-603	THERIOGENOLOGY CLINIC - II	1(0-1)
	<b>Total Credit Hours</b>	<b>16(9-7)</b>

**Semester 8**

Course Code	Title	Credit Hours
PSCI-602	BREEDER AND HATCHERY MANAGEMENT	3(2-1)
MICRO-602	VETERINARY EPIDEMIOLOGY AND PUBLIC HEALTH	3(2-1)
MED-602	SMALL ANIMAL SURGERY	4(3-1)
ZOOL-614	FISHERIES AND AQUACULTURE	1(0-1)
MED-604	MEDICINE CLINIC - III	2(0-2)
SURG-602	SURGERY CLINIC - III	2(0-2)
THERIO-602	THERIOGENOLOGY CLINIC - III	2(0-2)
AEE-419	LIVESTOCK EXTENSION EDUCATION	2(2-0)
	<b>Total Credit Hours</b>	<b>19(9-10)</b>

**Semester 9**

Course Code	Title	Credit Hours
BBA-611	ENTREPRENEURSHIP	1(0-1)
FST-514	DAIRY TECHNOLOGY	3(2-1)
PATH-611	POULTRY PATHOLOGY	3(2-1)
SURG-611	LARGE ANIMAL SURGERY AND SHOEING	3(2-1)
MED-613	MEDICINE CLINIC-IV	2(0-2)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SURG-613	SURGERY CLINIC - IV	2(0-2)
THERIO-611	THERIOGENOLOGY CLINIC - IV	2(0-2)
THERIO-613	COMPANION ANIMAL THERIOGENOLOGY	2(1-1)
	<b>Total Credit Hours</b>	<b>18(7-11)</b>

**Semester 10**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FVS-612	TECHNICAL REPORT WRITING AND PRESENTATION	2(2-0)
	INTERNSHIP	
	<b>Total Credit Hours</b>	<b>2(2-0)</b>

**B.SC. (HONS.) MICROBIOLOGY**

**Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
MB-301	GENERAL MICROBIOLOGY	4(3-1)	Major
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	Allied
PHYSIO-305	HUMAN PHYSIOLOGY	3(2-1)	Allied
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	General Education
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	General Education

Course Code	Title	Credit Hours	Course
IS-401 / SSH-306	ISLAMIC STUDIES / BASIC ETHICS	2(2-0)	General Education
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	General Education
	<b>Total Credit Hours</b>	<b>19(16-3)</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
MB-302	MICROBIAL PHYSIOLOGY AND METABOLISM	3(2-1)	Major
MB-304	BACTERIOLOGY	4(3-1)	Major
ANAT-307	CELL BIOLOGY AND HISTOLOGY	3(2-1)	Allied
HND-301	FUNDAMENTALS OF HUMAN NUTRITION	3(3-0)	Allied
ENG-314	EXPOSITORY WRITING	3(3-0)	General Education
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	General Education
MATH-301	ELEMENTARY MATHEMATICS	3(3-0)	General Education
IS-402 / SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0) (NC)	Compulsory
	<b>Total Credit Hours</b>	<b>21(18-3)</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
MB-401	IMMUNOLOGY	4(3-1)	Major
MB-403	INTRODUCTION TO MYCOLOGY	3(2-1)	Major
MB-405	INTRODUCTION TO MOLECULAR BIOLOGY	3(2-1)	Major
PATH-403	BASIC PATHOLOGY	3(1-2)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	General Education
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	General Education
IS-403 / SSH	ROHANIAT/ MORAL PHILOSOPHY	1(1-0) NCC	Compulsory
	<b>Total Credit Hours</b>	<b>19(13-6)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
MB-402	MICROBIAL GENETICS	3(2-1)	Major
MB-404	VIROLOGY	4(3-1)	Major
MB-406	BIOSAFETY AND BIOSECURITY IN MICROBIOLOGY RESEARCH	2(2-0)	Major
PARA-304	GENERAL PARASITOLOGY	3(2-1)	Allied
HE-407	ART, CRAFT, AND CALLIGRAPHY	2(1-1)	General Education
BMS-402	INTRODUCTION TO ENTREPRENEURSHIP	2(2-0)	General Education

Course Code	Title	Credit Hours	Course
STAT-408	QUANTITATIVE REASONING-II	3(2-1)	General Education
	<b>Total Credit Hours</b>	<b>19(14-5)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
MB-501	MEDICAL MICROBIOLOGY	3(2-1)	Major
MB-503	ANTIMICROBIAL RESISTANCE AND INFECTION CONTROL	3(2-1)	Major
MB-505	ONE HEALTH	3(2-1)	Major
MB-507	FOOD AND DAIRY MICROBIOLOGY	3(2-1)	Major
MB-509	EPIDEMIOLOGY	3(2-1)	Major
MB-511	MICROBIAL GENOMICS	3(2-1)	Major
MB-513	VETERINARY MICROBIOLOGY	3(2-1)	Major
	<b>Total Credit Hours</b>	<b>21(14-7)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
MB-502	GENETIC ENGINEERING AND MICROBIAL BIOTECHNOLOGY	3(2-1)	Major
MB-504	CELL CULTURE TECHNIQUES	1(0-1)	Major
MB-506	ENVIRONMENTAL MICROBIOLOGY	3(2-1)	Major
MB-508	COMMUNITY HEALTH AND HYGIENE	2(2-0)	Major
MB-510	IMMUNODIAGNOSTICS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
MB-512	FUNDAMENTALS OF PUBLIC HEALTH MICROBIOLOGY	3(2-1)	Major
MB-514	LABORATORY ANIMAL PRACTICES	1(0-1)	Major
MB-516	PROBIOTICS AND PREBIOTICS	3(2-1)	Major
<b>Total Credit Hours</b>		<b>19(12-7)</b>	

### Semester 7

Course Code	Title	Credit Hours	Course
MB-601	RESEARCH METHODOLOGY	1(1-0)	Major
MB-603	PHARMACEUTICAL MICROBIOLOGY	3(2-1)	Major
MB-605	VACCINOLOGY	3(2-1)	Major
MB-607	ZOONOSIS AND FOOD SAFETY	3(2-1)	Major
MB-609	INDUSTRIAL MICROBIOLOGY	3(2-1)	Major
MB-611	DIAGNOSTIC MICROBIOLOGY	3(1-2)	Major
MB-613	QUALITY CONTROL IN BIOLOGICS PRODUCTION	2(1-1)	Major
<b>Total Credit Hours</b>		<b>18(11-7)</b>	

### Semester 8

Course Code	Title	Credit Hours	Course
MB-602	INTERNSHIP	3(0-3)	Major
MB-604	CAPSTONE PROJECT	3(0-3)	Major
<b>Total Credit Hours</b>		<b>6(0-6)</b>	

## Faculty of Animal Husbandry

### BS ANIMAL SCIENCES

#### Semester 1

Course Code	Title	Credit Hours	Course
LM-301	INTRODUCTION TO LIVESTOCK MANAGEMENT	2(1-1)	Major
AN-301	FUNDAMENTALS OF ANIMAL NUTRITION	2(1-1)	Major
ABG-302	INTRODUCTORY MOLECULAR GENETICS	2(1-1)	Major
PSCI-301	INTRODUCTION TO POULTRY SCIENCE	2(1-1)	Major
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	Allied
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
MATH-301/ BIO-301	ELEMENTARY MATHEMATICS/ ESSENTIALS OF BIOLOGY	3(3-0)/ 3(2-1)	GE
<b>Total Credit Hours</b>		<b>20</b>	

#### Semester 2

Course Code	Title	Credit Hours	Course
LM-304	MANAGEMENT OF DAIRY ANIMALS	3(2-1)	Major
AN-302	METABOLISM OF PRIMARY NUTRIENTS	3(3-0)	Major
PSCI-302	INCUBATION PRINCIPLES AND HATCHERY MANAGEMENT	2(1-1)	Major

Course Code	Title	Credit Hours	Course
ANAT-501	INTRODUCTION TO VETERINARY ANATOMY	3(2-1)	Allied
PHYSIO-501	INTRODUCTION TO ANIMAL PHYSIOLOGY	3(2-1)	Allied
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
	<b>Total Credit Hours</b>	<b>19</b>	

### Semester 3

Course Code	Title	Credit Hours	Course
ABG-401	INTRODUCTORY POPULATION GENETICS	3(2-1)	Major
LM-401	PRINCIPLES OF SMALL RUMINANT PRODUCTION	3(2-1)	Major
AN-401	MINERALS AND VITAMINS IN NUTRITION	2(2-0)	Major
AGR-513	FODDERS AND FORAGES	2(1-1)	Major
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
IS-402/ SSH-403	TARJMATUL QURAN/ INTERFAITH HARMONY	1(1-0) NC	Compulsory
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
ABG-404	PRINCIPLES OF ANIMAL BREEDING	3(2-1)	Major
LM-402	PRINCIPLES OF MILK PRODUCTION	2(1-1)	Major
AN-404	NUTRIENT REQUIREMENTS OF FARM ANIMALS	3(2-1)	Major
PSCI-404	POULTRY FEEDING PRACTICES	3(2-1)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
IS-403	ROHANIAT / MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
ABG-501	UTILIZATION AND CONSERVATION OF ANIMAL GENETIC RESOURCES	3(2-1)	Major
LM-501	RANGE LIVESTOCK PRODUCTION	3(2-1)	Major
AN-501	FEEDING OF FARM ANIMALS	3(2-1)	Major
PSCI-501	POULTRY FARM MANAGEMENT	3(2-1)	Major
PSCI-502	POULTRY HOUSING AND EQUIPMENTS	2(1-1)	Major
FRW-401	AGRO-FORESTRY, RANGE AND WILDLIFE MANAGEMENT	3(2-1)	Allied
AR-601	INTRODUCTION TO ANIMAL REPRODUCTION	3(2-1)	Allied
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
ABG-502	SELECTION FOR ECONOMIC TRAITS IN FARM ANIMALS	3(2-1)	Major
LM-502	CAMEL AND EQUINE MANAGEMENT	3(2-1)	Major
LM-504	PRINCIPLES OF MEAT PRODUCTION	2(1-1)	Major
AN-502	PRINCIPLES OF POULTRY NUTRITION	2(1-1)	Major
ENT-615	POST-HARVEST PROTECTION OF CEREALS	2(1-1)	Allied
MED-506	Introduction to Farm Animal Health	3(2-1)	Allied
MAB-613	LIVESTOCK AND POULTRY MARKETING MANAGEMENT	2(2-0)	Allied
AE-401	PRINCIPLES OF AGRICULTURAL AND RESOURCE ECONOMICS	3(2-1)	Allied
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
ABG-601	INTRODUCTION TO ANIMAL GENOMICS	3(2-1)	Major
LM-603	BEHAVIOR AND WELFARE OF FARM ANIMALS	2(1-1)	Major
AN-601	FEED EVALUATION, FORMULATION AND PROCESSING TECHNOLOGY	3(2-1)	Major
PSCI-601	POULTRY HYGIENE AND DISEASE PREVENTION	3(2-1)	Major
FMP-617	FUNDAMENTALS OF MECHANIZATION	2(1-1)	Allied
AEE-301	INTRODUCTION TO AGRI. EXTENSION	3(2-1)	Allied
CHIN-405	LEARN CHINESE WITH ME	3(2-1)	Compulsory Elective
<b>Total Credit Hours</b>		<b>19</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
AS-602	INTERNSHIP	3(0-3)	Major
AS-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**BS DAIRY SCIENCE****Semester 1**

Course Code	Title	Credit Hours	Course
LM-301	INTRODUCTION TO LIVESTOCK MANAGEMENT	2(1-1)	Major
AN-301	FUNDAMENTALS OF ANIMAL NUTRITION	2(1-1)	Major
ABG-302	INTRODUCTORY MOLECULAR GENETICS	2(1-1)	Major
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	Allied
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
MATH-301/ BIO-301	ELEMENTARY MATHEMATICS/ ESSENTIALS OF BIOLOGY	3(3-0)/ 3(2-1)	GE
	<b>Total Credit Hours</b>	<b>18</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
LM-304	MANAGEMENT OF DAIRY ANIMALS	3(2-1)	Major

Course Code	Title	Credit Hours	Course
AN-302	METABOLISM OF PRIMARY NUTRIENTS	3(3-0)	Major
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	Major
ANAT-505	INTRODUCTION TO BOVINE ANATOMY	3(2-1)	Allied
PHYSIO-501	Introduction to Animal Physiology	3(2-1)	Allied
SSH-303	Ideology and Constitution of Pakistan	2(2-0)	GE
ENG-314	Expository Writing	3(3-0)	GE
<b>Total Credit Hours</b>		<b>20</b>	

### Semester 3

Course Code	Title	Credit Hours	Course
ABG-401	INTRODUCTORY POPULATION GENETICS	3(2-1)	Major
LM-403	DAIRYING UNDER DIFFICULT ENVIRONMENTS	3(2-1)	Major
AN-401	MINERALS AND VITAMINS IN NUTRITION	2(2-0)	Major
AGR-513	FODDERS AND FORAGES	2(1-1)	Major
AE-401	PRINCIPLES OF AGRICULTURAL AND RESOURCE ECONOMICS	3(2-1)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)	GE
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
ABG-406	FUNDAMENTALS OF DAIRY ANIMAL BREEDING	2(1-1)	Major
LM-404	DAIRY CATTLE AND BUFFALO PRODUCTION	3(2-1)	Major
AN-408	NUTRITION OF CALVES AND HEIFERS	3(2-1)	Major
FRW-401	AGRO-FORESTRY, RANGE AND WILDLIFE MANAGEMENT	3(2-1)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
IS-403	ROHANIAT / MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
ABG-501	UTILIZATION AND CONSERVATION OF ANIMAL GENETIC RESOURCES	3(2-1)	Major
LM-505	PHYSIOLOGY OF LACTATION	3(2-1)	Major
AN-503	NUTRIENT REQUIREMENTS OF DAIRY ANIMALS	3(2-1)	Major
FST-514	DAIRY TECHNOLOGY	3(2-1)	Major
AR-601	INTRODUCTION TO ANIMAL REPRODUCTION	3(2-1)	Allied
MAB-401	FUNDAMENTALS OF AGROBUSINESS AND MARKETING	2(2-0)	Allied
AE-504	DAIRY BUDGETING AND ACCOUNTS MANAGEMENT	3(3-0)	Allied
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ABG-504	Genetic Selection for Economic Traits in Dairy Animals	3(2-1)	Major
LM-504	Dairy Business Planning	3(2-1)	Major
AN-504	DAIRY FEED RESOURCES	3(2-1)	Major
FST-503	FOOD QUALITY MANAGEMENT	2(2-0)	Major
MICRO-508	FOOD AND DAIRY MICROBIOLOGY	3(2-1)	Major
AEE-301	INTRODUCTION TO AGRI. EXTENSION	3(2-1)	Allied
AE-607	MARKETING OF DAIRY ANIMALS AND PRODUCTS	3(3-0)	Allied
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
ABG-601	INTRODUCTION TO ANIMAL GENOMICS	3(2-1)	Major
LM-605	BEHAVIOR AND WELFARE OF FARM ANIMALS	3(2-1)	Major
LM-607	LIVESTOCK AS AN ENTERPRISE	2(1-1)	Major
AN-601	FEED EVALUATION, FORMULATION AND PROCESSING TECHNOLOGY	3(2-1)	Major
FMP-617	FUNDAMENTALS OF MECHANIZATION	2(1-1)	Allied
MED-506	INTRODUCTION TO FARM ANIMAL HEALTH	4(3-1)	Allied
CHIN-405	LEARN CHINESE WITH ME	3(2-1)	Compulsory Elective
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
DS-602	INTERNSHIP	3(0-3)	Major
DS-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**BS POULTRY SCIENCE****Semester 1**

Course Code	Title	Credit Hours	Course
PSCI-301	INTRODUCTION TO POULTRY SCIENCE	2(1-1)	Major
AN-301	FUNDAMENTALS OF ANIMAL NUTRITION	3(2-1)	Major
ABG-301	PRINCIPLES OF HEREDITY	3(2-1)	Major
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	Allied
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
CS-305	APPLICATION OF INFORMATION TECHNOLOGY AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GE
MATH-301/ BIO-301	ELEMENTARY MATHEMATICS/ ESSENTIALS OF BIOLOGY	3(3-0)/3(2-1)	GE
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
PSCI-302	POULTRY ANATOMY AND PHYSIOLOGY	3(2-1)	Major

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
PSCI-304	ECOLOGY OF THE FOWL	2(1-1)	Major
AN-302	METABOLISM OF PRIMARY NUTRIENTS	3(2-1)	Major
ABG-302	INTRODUCTORY MOLECULAR GENETICS	2(1-1)	Major
ENG-314	EXPOSITORY WRITING	3(3-0)	GE
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GE
MICRO-407	INTRODUCTION TO GENERAL MICROBIOLOGY AND IMMUNOLOGY	4(3-1)	Allied
<b>Total Credit Hours</b>		<b>19</b>	

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
PSCI-401	INCUBATION PRINCIPLES AND HATCHERY MANAGEMENT	2(1-1)	Major
PSCI-403	POULTRY HOUSING AND EQUIPMENT	2(1-1)	Major
AN-401	MINERAL AND VITAMIN METABOLISM	3(2-1)	Major
PATH-403	INTRODUCTION TO GENERAL PATHOLOGY	3(2-1)	Allied
PY-301	APPLIED PHYSICS	3(2-1)	Allied
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GE
BMS-402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/ SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)	GE
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
PSCI-402	POULTRY FARM MANAGEMENT	2(1-1)	Major
PSCI-404	BROILER PRODUCTION AND MANAGEMENT	3(2-1)	Major
PSCI-406	FARM RECORDS, DATA ANALYSIS AND INTERPRETATIONS	3(2-1)	Major
ABG-402	INTRODUCTORY POPULATION GENETICS	3(2-1)	Major
HE-407	ART, CRAFT AND CALLIGRAPHY	2(1-1)	GE
RS-409	RURAL SOCIOLOGY AND DEVELOPMENT	2(2-0)	GE
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
IS-403	ROHANIAT/ MORAL PHILOSOPHY	1(1-0) NC	Compulsory
<b>Total Credit Hours</b>		<b>20</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
PSCI-501	POULTRY FEEDING PRACTICES	2(1-1)	Major
PSCI-503	LAYER PRODUCTION AND MANAGEMENT	3(2-1)	Major
PSCI-505	POULTRY FARM PRACTICES	2(0-2)	Major
PSCI-507	FANCY BIRD PRODUCTION	2(1-1)	Major
AN-501	FEED EVALUATION, FORMULATION AND PROCESSING TECHNOLOGY	3(2-1)	Major
ABG-501	APPLIED POULTRY BREEDING	2(1-1)	Major
FMP-513	FARM EQUIPMENT, STRUCTURE AND PROCESSING	3(2-1)	Allied

Course Code	Title	Credit Hours	Course
PATH-503	INTRODUCTION TO POULTRY PATHOLOGY	3(2-1)	Allied
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
PSCI-502	POULTRY BREEDING PRACTICES	2(1-1)	Major
PSCI-504	POULTRY HEALTH MANAGEMENT	3(2-1)	Major
PSCI-506	BREEDER PRODUCTION AND MANAGEMENT	2(1-1)	Major
PSCI-508	RESEARCH PROJECT, REPORT WRITING AND FARM MANAGEMENT	1(0-1)	Major
PSCI-510	POULTRY MARKETING AND ECONOMICS	3(2-1)	Major
AN-502	PRINCIPLES OF POULTRY NUTRITION	2(1-1)	Major
ABG-502	BIOTECHNOLOGY IN POULTRY BREEDING	2(2-0)	Major
MICRO-504	VETERINARY EPIDEMIOLOGY AND PUBLIC HEALTH	4(3-1)	Allied
	<b>Total Credit Hours</b>	<b>19</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
PSCI-601	POULTRY PRODUCTS TECHNOLOGY	2(1-1)	Major
PSCI-603	RURAL POULTRY PRODUCTION	2(1-1)	Major
PSCI-605	POULTRY MEAT INSPECTION	2(1-1)	Major
AN-601	POULTRY FEED INDUSTRY	3(2-1)	Major
ABG-601	CONSERVATION AND DEVELOPMENT OF INDIGENOUS POULTRY RESOURCES	2(1-1)	Major
MED-605	INTRODUCTION TO POULTRY MEDICINE	3(2-1)	Allied

Course Code	Title	Credit Hours	Course
MAB-601	INTERNATIONAL TRADE	3(3-0)	Allied
CHIN-405	LEARN CHINESE WITH ME	3(2-1)	Compulsory Elective
	<b>Total Credit Hours</b>	<b>20</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
PSCI-602	INTERNSHIP	3(0-3)	Major
PSCI-604	CAPSTONE PROJECT	3(0-3)	Major
	<b>Total Credit Hours</b>	<b>6</b>	

**Faculty of Health & Pharmaceutical Sciences****Pharm-D****Semester 1**

Course Code	Title	Credit Hours
PHARM-D-305	PHARMACEUTICAL CHEMISTRY-IA (ORGANIC)	4(3-1)
PHARM-D-311	PHARMACEUTICAL CHEMISTRY-IIA (BIOCHEMISTRY)	4(3-1)
PHARM-D-301	PHARMACEUTICS-IA (PHYSICAL PHARMACY)	4(3-1)
PHARM-D-303	PHYSIOLOGY-A	4(3-1)
PHARM-D-307	ANATOMY	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-309	HISTOLOGY	3(2-1)
ENG-303	ENGLISH-A (FUNCTIONAL ENGLISH)	2(2-0)

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-306	PHARMACEUTICAL CHEMISTRY-IB (ORGANIC)	4(3-1)
PHARM-D-308	PHARMACEUTICAL CHEMISTRY-IIB (BIOCHEMISTRY)	4(3-1)
PHARM-D-302	PHARMACEUTICS-IB (PHYSICAL PHARMACY)	4(3-1)
PHARM-D-304	PHYSIOLOGY-B	4(3-1)
ENG-301	ENGLISH-A (COMPOSITION AND COMMUNICATION SKILLS)	3(3-0)
IS-402	QURAN TRANSLATION	1(1-0)

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-401	PHARMACEUTICS-IIA (DOSAGE FORMS SCIENCE)	4(3-1)
PHARM-D-407	PHARMACEUTICS-III A (PHARMACEUTICAL MICROBIOLOGY & IMMUNOLOGY)	4(3-1)
PHARM-D-403	PHARMACOLOGY AND THERAPEUTICS-IA	4(3-1)
PHARM-D-405	PHARMACOGNOSY-IA (BASIC)	4(3-1)
MATH-404	PHARMACY PRACTICE-IA (PHARMACEUTICAL MATHEMATICS)	3(3-0)
IS-401	ISLAMIC STUDIES	3(3-0)
IS-403	RUHANIYAT	1(1-0)

**Semester 4**

Course Code	Title	Credit Hours
PHARM-D-402	PHARMACEUTICS-IIIB (DOSAGE FORMS SCIENCE)	4(3-1)
PHARM-D-408	PHARMACEUTICS-IIIB (PHARMACEUTICAL MICROBIOLOGY & IMMUNOLOGY)	4(3-1)
PHARM-D-404	PHARMACOLOGY AND THERAPEUTICS-IB	4(3-1)
PHARM-D-406	PHARMACOGNOSY-IB (BASIC)	4(3-1)
STAT-404	PHARMACY PRACTICE-IB (BIOSTATISTICS)	4(4-0)
SSH-302	PAKISTAN STUDIES	2(2-0)

**Semester 5**

Course Code	Title	Credit Hours
PHARM-D-507	PATHOLOGY	4(3-1)
PHARM-D-501	PHARMACOLOGY & THERAPEUTICS-IIA	4(3-1)
PHARM-D-503	PHARMACOGNOSY-IIA (ADVANCED)	4(3-1)
PHARM-D-509	PHARMACEUTICAL CHEMISTRY-III A (PHARMACEUTICAL ANALYSIS)	4(3-1)
PHARM-D-505	PHARMACY PRACTICE-IIA (DISPENSING PHARMACY)	4(3-1)

**Semester 6**

Course Code	Title	Credit Hours
IT-508	PHARMACY PRACTICE-III (COMPUTER & ITS APPLICATIONS IN PHARMACY)	4(3-1)
PHARM-D-502	PHARMACOLOGY & THERAPEUTICS-IIIB	4(3-1)
PHARM-D-504	PHARMACOGNOSY-IIIB (ADVANCED)	4(3-1)
PHARM-D-508	PHARMACEUTICAL CHEMISTRY-IIIB (PHARMACEUTICAL ANALYSIS)	4(3-1)
PHARM-D-506	PHARMACY PRACTICE-IIIB (COMMUNITY, SOCIAL & ADMINISTRATIVE PHARMACY)	3(3-0)

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-601	PHARMACY PRACTICE-IVA (HOSPITAL PHARMACY)	3(3-0)
PHARM-D-603	PHARMACY PRACTICE-VA (CLINICAL PHARMACY)	4(3-1)
PHARM-D-605	PHARMACEUTICS-IVA (INDUSTRIAL PHARMACY)	4(3-1)
PHARM-D-607	PHARMACEUTICS-VA (BIOPHARMACEUTICS AND PHARMACOKINETICS)	4(3-1)
PHARM-D-609	PHARMACEUTICS-VIA (PHARMACEUTICAL QUALITY MANAGEMENT)	4(3-1)

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-602	PHARMACY PRACTICE-IVB (HOSPITAL PHARMACY)	3(3-0)
PHARM-D-604	PHARMACY PRACTICE-VB (CLINICAL PHARMACY)	4(3-1)
PHARM-D-606	PHARMACEUTICS-IVB (INDUSTRIAL PHARMACY)	4(3-1)
PHARM-D-608	PHARMACEUTICS-VB (BIOPHARMACEUTICS AND PHARMACOKINETICS)	4(3-1)
PHARM-D-610	PHARMACEUTICS-VIB (PHARMACEUTICAL QUALITY MANAGEMENT)	4(3-1)

**Semester 9**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PHARM-D-611	PHARMACY PRACTICE VI-A (ADVANCED CLINICAL PHARMACY)	4(3-1)
PHARM-D-613	PHARMACEUTICS VII-A (PHARMACEUTICAL TECHNOLOGY)	4(3-1)
PHARM-D-615	PHARMACY PRACTICE VII-A (FORENSIC PHARMACY)	3(3-0)
PHARM-D-617	PHARMACEUTICAL CHEMISTRY IV-A (MEDICINAL CHEMISTRY)	4(3-1)
PHARM-D-619	PHARMACY PRACTICE VIII-A (PHARMACEUTICAL MANAGEMENT & MARKETING)	3(3-0)

**Semester 10**

Course Code	Title	Credit Hours
PHARM-D-612	PHARMACY PRACTICE VI-A (ADVANCED CLINICAL PHARMACY)	4(3-1)
PHARM-D-614	PHARMACEUTICS VII-A (PHARMACEUTICAL TECHNOLOGY)	4(3-1)
PHARM-D-616	PHARMACY PRACTICE VII-A (FORENSIC PHARMACY)	3(3-0)
PHARM-D-618	PHARMACEUTICAL CHEMISTRY IV-A (MEDICINAL CHEMISTRY)	4(3-1)
PHARM-D-620	PHARMACY PRACTICE VIII-A (PHARMACEUTICAL MANAGEMENT & MARKETING)	3(3-0)

**Faculty of Food, Nutrition and Home Sciences****B.SC. (HONS.) HOME ECONOMICS****Semester 1**

Course Code	Title	Credit Hours
HE-301	FUNDAMENTALS OF FOOD AND NUTRITION	3(2-1)
HE-303	INTRODUCTION TO HOME ECONOMICS	2(2-0)
HE-305	BASIC PSYCHOLOGY	3(3-0)
<b>GENERAL COURSES</b>		
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-401/ SSH-306	ISLAMIC STUDIES/BASIC ETHICS	2(2-0)
	<b>Total Credit Hours</b>	<b>19 (16-3)</b>

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
<b>MAJOR COURSES</b>		
HE-302	MEAL MANEGEMENT PRACTICES	3(2-1)
HE-304	FUNDAMENTALS OF CLOTHING AND TEXTILES	3(2-1)
HE-306	E-COMMERCE AND DIGITAL MARKETTING FOR HOME BASED BUSINESSES	2(1-1)
HE-308	COLOUR PSYCHOLOGY	2(2-0)
<b>GENERAL COURSES</b>		
ENG-314	EXPOSITORY WRITING	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
MICRO-304	INTRODUCTION TO MICROBIOLOGY AND IMMUNOLOGY	3(2-1)
IS-405 / PS-410	FEHM-E-QURAN-I (FOR MUSLIMS)/ PHILOSOPHY OF ETHICS (FOR NON-MUSLIMS AND FOREIGNERS)	1(1-0)
	<b>Total Credit Hours</b>	<b>19 (14-5)</b>

**Semester 3**

Course Code	Title	Credit Hours
<b>MAJOR COURSES</b>		
HE-401	DIETETICS	3(2-1)
HE-403	FUNDAMENTALS OF INTERIOR DESIGN	3(2-1)
HE-405	HOME ECONOMICS IN DIGITAL AGE	2(1-1)
<b>GENERAL COURSES</b>		
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
FST-501	FOOD MICROBIOLOGY AND BIOTECHNOLOGY	3(2-1)
PHYSIO-401	HUMAN PHYSIOLOGY-I	3(2-1)
IS-406/ PS-411	FEHM-E-QURAN-II (FOR MUSLIMS)/ SOCIETY AND ETHICS (FOR NON-MUSLIMS AND FOREIGNERS)	1(1-0)
<b>Total Credit Hours</b>		<b>20(14-6)</b>

**Semester 4**

Course Code	Title	Credit Hours
<b>MAJOR COURSES</b>		
HE-402	FUNDAMENTALS OF FASHION AND APPAREL	2(1-1)
HE-404	FUNDAMENTALS OF ART AND DESIGN	3(1-2)
<b>SUPPORTING COURSES</b>		
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)

Course Code	Title	Credit Hours
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
STAT-408	QUANTITATIVE REASONING – II	3 (3-0)
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)
TET-406	INTRODUCTION TO GARMENT TECHNOLOGY	3(2-1)
IS-403 / SSH-404	ROHANIAT (FOR MUSLIMS)/ MORAL PHILOSOPHY (FOR NON-MUSLIMS AND FOREIGNERS)	1(1-0)
	<b>Total Credit Hours</b>	<b>20(15-5)</b>

### Semester 5

Course Code	Title	Credit Hours
<b>COMMON COURSE</b>		
HE-501	HOME MANAGEMENT AND HOUSING	3(2-1)
<b>MAJOR COURSES</b>		
<b>FOOD AND NUTRITION</b>		
FN-501	PHYSIOLOGICAL ASPECTS OF NUTRITION	3(3-0)
FN-503	INFANT NUTRITION	3(2-1)
FN-505	NUTRITIONAL BIOCHEMISTRY	3(3-0)
FN-507	INSTITUTIONAL FOOD AND NUTRITION SERVICES MANAGEMENT	3(2-1)
	<b>Total Credit Hours</b>	<b>15(12-3)</b>
<b>TEXTILES AND CLOTHING</b>		
TC-501	TEXTILE DESIGNING AND DYEING	3(1-2)
TC-503	GARMENT CONSTRUCTION AND PATTERN MAKING	3(1-2)

Course Code	Title	Credit Hours
TC-505	HIGH-PERFORMANCE FABRICS AND TECHNICAL TEXTILES	3(3-0)
TC-507	TEXTILE TESTING AND QUALITY ASSURANCE	3(2-1)
	<b>Total Credit Hours</b>	<b>15(9-6)</b>
<b>HUMAN DEVELOPMENT AND FAMILY STUDIES</b>		
HDF-501	DEVELOPMENT FROM PRENATAL TO INFANCY	3(3-0)
HDF-503	EXCEPTIONAL CHILDREN	3(2-1)
HDF-505	THEORIES OF HUMAN DEVELOPMENT	3(3-0)
HDF-507	PSYCHOLOGICAL DISORDERS	3(2-1)
	<b>Total Credit Hours</b>	<b>15(12-3)</b>
<b>ART AND DESIGN</b>		
AD-501	APPLIED ART PROGRAM	3(1-2)
AD-503	ART EDUCATION	3(1-2)
AD-505	COMMERCIAL ART	3(1-2)
AD-507	FUNDAMENTALS OF DRAWING	3(1-2)
	<b>Total Credit Hours</b>	<b>15(6-9)</b>
<b>INTERIOR AND HOME MANAGEMENT</b>		
IHM-501	CULTURAL AND HISTORICAL INFLUENCES IN INTERIOR DESIGN	3(2-1)
IHM-503	ERGONOMICS	3(2-1)
IHM-505	HOSPITALITY AND EVENT MANAGEMENT	3(1-2)
IHM-507	LANDSCAPING	3(1-2)
	<b>Total Credit Hours</b>	<b>15(8-7)</b>

Course Code	Title	Credit Hours
<b>EMERGING TECHNOLOGIES</b>		
ET-501	INTERNET OF THINGS (IOT) IN HOME ECONOMICS	3(2-1)
ET-503	GREEN ENERGY SOLUTIONS FOR SUSTAINABLE HOMES AND WORK-SPACES	3(3-0)
ET-505	BIOTECHNOLOGY INNOVATIONS IN FOOD AND NUTRITION	3(3-0)
ET-507	ETHICAL AND SOCIAL IMPLICATIONS OF EMERGING TECHNOLOGIES IN HOME ECONOMICS	3(3-0)
	<b>Total Credit Hours</b>	<b>15(13-2)</b>

### Semester 6

Course Code	Title	Credit Hours
<b>COMMON COURSES</b>		
TC-510	TEXTILE DESIGNING AND WEAVING (FOR STUDENTS OF TC, HDFS, AND AD)	3(2-1)
FN-510	FOOD COMPOSITION AND SENSORY SCIENCE (FOR STUDENTS OF FN)	3(2-1)
HE-502	ARTIFICIAL INTELLIGENCE IN HOME ECONOMICS	2(1-1)
<b>MAJOR COURSES</b>		
<b>FOOD AND NUTRITION</b>		
FN-502	SUSTAINABLE FOOD SYSTEMS AND AGRICULTURAL PRACTICES	3(2-1)
FN-504	NUTRITIONAL DISORDERS	3(3-0)
FN-506	EMERGENCY NUTRITION	3(3-0)
FN-508	CLINICAL AND THERAPEUTIC NUTRITION	3(2-1)
	<b>Total Credit Hours</b>	<b>17(13-4)</b>

Course Code	Title	Credit Hours
<b>TEXTILES AND CLOTHING</b>		
TC-502	TEXTILES COMPUTER AIDED DESIGN	3(2-1)
TC-504	FASHION AND BOUTIQUE MANAGEMENT	3(1-2)
TC-506	HISTORY OF COSTUME AND FASHION	3(2-1)
TC-508	ART OF DRAPING	3(1-2)
	<b>TOTAL</b>	<b>17(9-8)</b>
<b>HUMAN DEVELOPMENT AND FAMILY STUDIES</b>		
HDF-502	EARLY CHILDHOOD DEVELOPMENT	3(2-1)
HDF-504	GENDER IDENTITY AND EXPRESSION	3(3-0)
HDF-506	POSITIVE PSYCHOLOGY	3(3-0)
HDF-508	ADULTHOOD AND AGING	3(2-1)
	<b>Total Credit Hours</b>	<b>17(13-4)</b>
<b>ART AND DESIGN</b>		
AD-502	CERAMICS	3(1-2)
AD-504	ART APPRECIATION	3(3-0)
AD-506	TEXTILE AND FASHION DESIGNING	3(1-2)
AD-508	ISLAMIC ART	3(3-0)
	<b>Total Credit Hours</b>	<b>17(11-6)</b>
<b>INTERIOR AND HOME MANAGEMENT</b>		
IHM-502	3D SOFTWARE FOR INTERIOR DESIGN	3(2-1)
IHM-504	KITCHEN AND BATH DESIGN	3(1-2)

Course Code	Title	Credit Hours
IHM-506	LIGHTING DESIGN AND ENERGY EFFICIENCY IN INTERIORS	3(2-1)
IHM-508	ADAPTIVE REUSE AND RESTORATION OF INTERIORS	3(1-2)
	<b>Total Credit Hours</b>	<b>17(9-8)</b>
<b>EMERGING TECHNOLOGIES</b>		
ET-502	3D PRINTING FOR INTERIOR AND PRODUCT DESIGN	3(2-1)
ET-504	TECH-DRIVEN CONSUMER BEHAVIOR AND MARKET ANALYSIS	3(2-1)
ET-506	MOBILE APP DEVELOPMENT FOR HOME AND LIFESTYLE MANAGEMENT	3(2-1)
ET-508	BLOCKCHAIN FOR SUPPLY CHAIN TRANSPARENCY IN TEXTILES AND FOOD	3(2-1)
	<b>Total Credit Hours</b>	<b>17(11-6)</b>

## Semester 7

Course Code	Title	Credit Hours
<b>COMMON COURSES</b>		
HE-601	LIFE SPAN DEVELOPMENT	3(2-1)
HE-603	HOME ECONOMICS EDUCATION, ADMINISTRATION AND SUPERVISION	3(3-0)
<b>MAJOR COURSES</b>		
<b>FOOD AND NUTRITION</b>		
FN-601	EXPERIMENTAL FOODS	3(1-2)
FN-603	NUTRITION EDUCATION AND AWARENESS	3(2-1)
FN-605	FOOD BIOTECHNOLOGY AND GENETIC MODIFICATION	3(2-1)
	<b>Total Credit Hours</b>	<b>15(10-5)</b>

Course Code	Title	Credit Hours
<b>TEXTILES AND CLOTHING</b>		
TC-601	TEXTILE PRINTING TECHNIQUES	3(0-3)
TC-603	FASHION MERCHANDISING AND INDUSTRIAL MANAGEMENT	3(2-1)
TC-605	FASHION ACCESSORIES DESIGN AND PRODUCTION	3(1-2)
	<b>Total Credit Hours</b>	<b>15(8-7)</b>
<b>HUMAN DEVELOPMENT AND FAMILY STUDIES</b>		
HDF-601	COUNSELING AND GUIDANCE	3(2-1)
HDF-603	PARENTING STYLES	3(3-0)
HDF-605	PSYCHOLOGICAL TESTING	3(2-1)
	<b>Total Credit Hours</b>	<b>15(12-3)</b>
<b>ART AND DESIGN</b>		
AD-601	ESSENTIALS OF INTERIOR DESIGN	3(2-1)
AD-603	ART INSTALLATION	3(1-2)
AD-605	GRAPHIC COMMUNICATION	3(1-2)
	<b>Total Credit Hours</b>	<b>15(9-6)</b>
<b>INTERIOR AND HOME MANAGEMENT</b>		
IHM-601	MATERIAL AND MODELS	3(2-1)
IHM-603	SMART HOMES AND AUTOMATION	3(2-1)
IHM-605	AESTHETICS AND STYLE TRENDS IN INTERIOR DÉCOR	3(2-1)
	<b>Total Credit Hours</b>	<b>15 (11-4)</b>

Course Code	Title	Credit Hours
<b>EMERGING TECHNOLOGIES</b>		
ET-601	SUSTAINABLE TECHNOLOGIES IN TEXTILE AND APPAREL PRODUCTION	3(3-0)
ET-603	CYBERSECURITY AND DATA PRIVACY FOR HOME-BASED BUSINESSES	3(2-1)
ET-605	ADVANCED ROBOTICS IN HOME ASSISTANCE AND ELDERLY CARE	3(2-1)
	<b>Total Credit Hours</b>	<b>15(12-3)</b>

### Semester 8

Course Code	Title	Credit Hours
<b>COMMON COURSES</b>		
HE- 602	FAMILY CLOTHING AND CONSUMER EDUCATION	3(2-1)
HE-604	GLOBAL PERSPECTIVES ON HOME ECONOMICS	3(3-0)
<b>FOOD AND NUTRITION</b>		
FN-602	SPORTS AND PERFORMANCE NUTRITION	3(2-1)
FN-610	CAPSTONE PROJECT	3(0-3)
FN-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(7-8)</b>
<b>TEXTILES AND CLOTHING</b>		
TC-602	ADVANCED TEXTILES	3(2-1)
TC-610	CAPSTONE PROJECT	3(0-3)
TC-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(7-8)</b>

Course Code	Title	Credit Hours
<b>HUMAN DEVELOPMENT AND FAMILY STUDIES</b>		
HDF-602	EDUCATIONAL PSYCHOLOGY	3(2-1)
HDF-610	CAPSTONE PROJECT	3(0-3)
HDF-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(7-8)</b>
<b>ART AND DESIGN</b>		
AD-602	TECHNIQUES OF PAINTING	3(0-3)
AD-610	CAPSTONE PROJECT	3(0-3)
AD-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(5-10)</b>
<b>INTERIOR AND HOME MANAGEMENT</b>		
IHM-602	SUSTAINABLE FURNISHINGS	3(1-2)
IHM-610	CAPSTONE PROJECT	3(0-3)
IHM-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(6-9)</b>
<b>EMERGING TECHNOLOGIES</b>		
ET-602	WEARABLE TECHNOLOGY IN HEALTH AND FASHION	3(2-1)
ET-610	CAPSTONE PROJECT	3(0-3)
ET-612	INTERNSHIP	3(0-3)
	<b>Total Credit Hours</b>	<b>15(7-8)</b>

## BSC (HONS.) FOOD SCIENCE AND TECHNOLOGY

### Semester 1

Course Code	Title	Credit Hours	Course
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	MC
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	IDC
HORT-415	POST-HARVEST HANDLING OF FRUITS AND VEGETABLES	3(2-1)	IDC
AGR-301/ AGR-304	BASIC AGRICULTURE WEED CONTROL METHODS (FOR STUDENTS OF PRE-AGRICULTURE ONLY)	3(1-2)/ 3(1-2)	IDC
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GEC
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GEC
<b>Total Credit Hours</b>		<b>18</b>	

### Semester 2

Course Code	Title	Credit Hours	Course
FST-302	FOOD HYGIENE AND PUBLIC HEALTH	3(3-0)	MC
FST-304	FUNDAMENTALS OF FOOD SYSTEMS	3(3-0)	MC
ENT-508	STORED PRODUCTS PESTS AND THEIR MANAGEMENT	3(2-1)	IDC
MICRO-304	INTRODUCTION TO MICROBIOLOGY AND IMMUNOLOGY	3(2-1)	IDC
ENG-314	EXPOSITORY WRITING	3(3-0)	GEC
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GEC
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GEC

Course Code	Title	Credit Hours	Course
IS-405/PS-410	FEHM-E-QURAN-I/PHILOSOPHY OF ETHICS (FOR FOREIGN/ NON-MUSLIM STUDENTS)	1(0-1)	GEC
	<b>Total Credit Hours</b>	<b>21</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
FST-401	FUNDAMENTALS OF HALAL FOODS	2(2-0)	MC
FST-403	RESEARCH PROJECT AND SCIENTIFIC WRITING	3(2-1)	MC
FST-405	FOOD TOXICOLOGY AND SAFETY	3(3-0)	MC
HND-403	PUBLIC HEALTH NUTRITION	2(2-0)	MC
MATH-408	QUANTITATIVE REASONING -I	3(3-0)	GEC
BMS-402	ENTREPRENEURSHIP	2(2-0)	GEC
IS-401/SSH-306	ISLAMIC STUDIES/BASIC ETHICS (FOREIGN/ NON-MUSLIM STUDENTS)	2(2-0)/2(2-0)	GEC
	<b>Total Credit Hours</b>	<b>17</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
FST-402	FOOD AND NUTRITION ENTREPRENEURSHIP	3(3-0)	MC
FST-404	EXTRUSION TECHNOLOGY	3(2-1)	MC
HND-404	FUNCTIONAL FOODS AND NUTRACEUTICALS	3(2-1)	MC
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	GEC

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GEC
STAT-408	QUANTITATIVE REASONING -II	3(3-0)	GEC
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)	GEC
IS-406/PS-411	FEHM-E-QURAN-II/ SOCIETY AND ETHICS (FOR FOREIGN/ NON-MUSLIM STUDENTS)	1(0-1)	GEC
IS-403	ROHANIAH/MORAL PHILOSOPHY (FOR FOREIGN/ NON-MUSLIM STUDENTS)	1 (1-0)	NCC
<b>Total Credit Hours</b>		<b>19</b>	

### **Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FST-501	FOOD MICROBIOLOGY AND BIOTECHNOLOGY	3(2-1)	MC
FST-503	FOOD QUALITY MANAGEMENT	2(2-0)	MC
FST-505	MEAT AND POULTRY PROCESSING	3(2-1)	MC
FST-507	FRUITS AND VEGETABLES PROCESSING	3(2-1)	MC
HND-301	FUNDAMENTALS OF HUMAN NUTRITION	3(3-0)	MC
HND-603	FOOD SERVICE MANAGEMENT	3(3-0)	MC
<b>Total Credit Hours</b>		<b>17</b>	

### **Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FST-502	FOOD ANALYSIS AND SENSORY EVALUATION	3(2-1)	MC
FST-504	BAKERY PRODUCTS TECHNOLOGY	3(2-1)	MC

Course Code	Title	Credit Hours	Course
FST-506	TECHNOLOGY OF EDIBLE OILS AND FATS	3(2-1)	MC
FST-508	FOOD CHEMISTRY	3(3-0)	MC
FST-510	DAIRY TECHNOLOGY	3(2-1)	MC
FST-512	UNIT OPERATIONS IN FOOD PROCESSING	3(3-0)	MC
	<b>Total Credit Hours</b>	<b>18</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
FST-601	INSTRUMENTAL TECHNIQUES IN FOOD AND NUTRITION	3(2-1)	MC
FST-603	CEREAL TECHNOLOGY	3(2-1)	MC
FST-605	Beverage Technology	3(2-1)	MC
FE-304	Food Process Engineering	3(2-1)	IDC
HND-506	NUTRITION IN EMERGENCIES	3(3-0)	IDC
HND-605	NUTRITION POLICIES AND PROGRAMS	3(3-0)	MC
	<b>Total Credit Hours</b>	<b>18</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
FST-602	FOOD PACKAGING	2(2-0)	MC
FST-604	FOOD PRODUCT DEVELOPMENT	3(1-2)	MC
FST-606	FOOD LAWS AND REGULATIONS	3(3-0)	MC
FST-608	CONFECTIONERY AND SNACK FOODS	2(1-1)	MC

Course Code	Title	Credit Hours	Course
FST-610	CAPSTONE PROJECT	3(0-3)	MC
FST-612	INTERNSHIP/FIELD EXPERIENCE	3(0-3)	MC
	<b>Total Credit Hours</b>	<b>16</b>	
	<b>Grand Total</b>	<b>144</b>	

## BSB HUMAN NUTRITION AND DIETETICS

### Semester 1

Course Code	Title	Credit Hours	Course
HND-301	FUNDAMENTALS OF HUMAN NUTRITION	3(3-0)	MC
FST-301	ESSENTIALS OF FOOD SCIENCE AND TECHNOLOGY	3(2-1)	MC
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)	IDC
AGR-301/ AGR304	BASIC AGRICULTURE/ WEED CONTROL METHODS (FOR F.SC. PRE-AGRI.)	3(1-2)	IDC
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GEC
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GEC
	<b>Total Credit Hours</b>	<b>18</b>	

### Semester 2

Course Code	Title	Credit Hours	Course
HND-302	MACRONUTRIENTS IN HUMAN NUTRITION	3(3-0)	MC
FST-304	FUNDAMENTALS OF FOOD SYSTEMS	3(3-0)	MC

Course Code	Title	Credit Hours	Course
PHYSIO-401	HUMAN PHYSIOLOGY-I	3(2-1)	MC
ANAT-502	FUNDAMENTALS OF HUMAN ANATOMY	3(2-1)	IDC
ENG-314	EXPOSITORY WRITING	3(3-0)	IDC
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3 (2-1)	GEC
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GEC
IS-405/PS-410	FEHM-E-QURAN-I/PHILOSOPHY OF ETHICS (FOR FOREIGN / NON-MUSLIM STUDENTS)	1(0-1)	GEC
	<b>Total Credit Hours</b>	<b>21</b>	<b>GEC</b>

**Semester 3**

Course Code	Title	Credit Hours	Course
HND-401	MICRONUTRIENTS IN HUMAN NUTRITION	3(3-0)	MC
HND-403	PUBLIC HEALTH NUTRITION	2(2-0)	MC
PHYSIO-402	HUMAN PHYSIOLOGY-II	3(2-1)	IDC
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GEC
BMS-402	ENTREPRENEURSHIP	2(2-0)	GEC
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS (FOR FOREIGN/NON-MUSLIM STUDENTS)	2(2-0)	GEC
	<b>Total Credit Hours</b>	<b>15</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
HND-402	NUTRITION THROUGH THE LIFE CYCLE	3(3-0)	MC

Course Code	Title	Credit Hours	Course
HND-404	FUNCTIONAL FOODS AND NUTRACEUTICALS	3(2-1)	MC
FST-402	FOOD AND NUTRITION ENTREPRENEURSHIP	3(3-0)	MC
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	GEC
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GEC
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GEC
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)	GEC
IS-406/PS-411	FEHM-E-QURAN-II/ SOCIETY AND ETHICS (FOR FOREIGN / NON-MUSLIM STUDENTS)	1(0-1)	GEC
IS-403	ROHANIAH/ MORAL PHILOSOPHY (FOR FOREIGN/NON-MUSLIM STUDENTS)	1 (1-0)	NCC
<b>Total Credit Hours</b>		<b>19</b>	

### Semester 5

Course Code	Title	Credit Hours	Course
HND-501	FUNDAMENTALS OF DIETETICS	3(2-1)	MC
HND-503	ASSESSMENT OF NUTRITIONAL STATUS	3(2-1)	MC
HND-505	INFANT AND YOUNG CHILD FEEDING	3(2-1)	MC
HND-507	SPORTS NUTRITION	3(2-1)	MC
PATH-504	INTRODUCTION TO PATHOLOGY	3(2-1)	IDC
BIOCHEM-503	CLINICAL BIOCHEMISTRY	3(1-2)	IDC
<b>Total Credit Hours</b>		<b>18</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
HND-502	HOSPITAL DIETETICS-I	3(2-1)	MC
HND-504	Meal Planning and Management	3(2-1)	MC
HND-506	Nutrition in Emergencies	3(3-0)	MC
HND-508	CLINICAL NUTRITION	3(2-1)	MC
HND-510	NUTRITIONAL IMMUNOLOGY	2(2-0)	MC
FST-502	FOOD ANALYSIS AND SENSORY EVALUATION	3(2-1)	MC
<b>Total Credit Hours</b>		<b>17</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
HND-601	HOSPITAL DIETETICS-II	3(2-1)	MC
HND-603	FOOD SERVICE MANAGEMENT	3(3-0)	MC
HND-605	NUTRITION POLICIES AND PROGRAMS	3(3-0)	MC
HND-607	FOOD SUPPLEMENTS	2(2-0)	MC
FST-501	FOOD MICROBIOLOGY AND BIOTECHNOLOGY	3(2-1)	MC
FST-601	INSTRUMENTAL TECHNIQUES IN FOOD AND NUTRITION	3(2-1)	MC
<b>Total Credit Hours</b>		<b>17</b>	

**Semester 8**

Course Code	Title	Credit Hours	Course
HND-602	DRUG-NUTRIENT INTERACTIONS	3(2-1)	MC

Course Code	Title	Credit Hours	Course
HND-604	NUTRITION THROUGH SOCIAL PROTECTION	2(2-0)	MC
HND-606	RESEARCH METHODS IN NUTRITION	3(3-0)	MC
HND-608	FOOD AND DRUG LAWS	2(2-0)	MC
HND-610	CAPSTONE PROJECT	3(0-3)	MC
HND-612	INTERNSHIP/ FIELD EXPERIENCE	3(0-3)	MC
FST-503	FOOD QUALITY MANAGEMENT	2(2-0)	MC
<b>Total Credit Hours</b>		<b>18</b>	
<b>Grand Total</b>		<b>143</b>	

## BACHELOR OF FASHION DESIGN (BFD)

### Semester 1

Course Code	Title	Credit Hours	Course
FD- 301	BASIC DRAWING I	3(1-2)	MC
FD-303	DESIGN HISTORY & THEORY I	2(2-0)	MC
FD-305	SHAPING I	3(1-2)	MC
ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GEC
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	3(2-1)	GEC
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GEC
<b>Total Credit Hours</b>		<b>17(11-6)</b>	

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FD-302	BASIC DRAWING II	3(0-3)	MC
FD-304	DESIGN HISTORY & THEORY II	2(2-0)	MC
FD-306	SHAPING II	3(1-2)	MC
FD-308 <sup>A</sup>	INTRODUCTION TO TEXTILES	2(1-1)	MC
ENG-314	EXPOSITORY WRITING	3(3-0)	GEC
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)	GEC
IS-405/ PS-410	FEHM-E-QURAN-I (FOR MUSLIMS) / PHILOSOPHY OF ETHICS (FOR NON-MUSLIMS & FOREIGNERS)	1(0-1)	GEC
FA-306	BASIC DESIGN TECHNIQUES II	2(0-2)	IDC
<b>Total Credit Hours</b>		<b>18(9-9)</b>	

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FD- 401	INTRODUCTION TO DRAPING	3(1-2)	MC
FD-403	FASHION DESIGN STUDIO I	3(1-2)	MC
FD-405	SEWING (BASICS)	2(0-2)	MC
MATH-408	QUANTITATIVE REASONING-I	3(3-0)	GEC
BMS-402	ENTREPRENEURSHIP	2(2-0)	GEC
IS-401/ SSH-306	ISLAMIC STUDIES/ BASIC ETHICS	2(2-0)	GEC
IS-406/ PS-411	FEHM-E-QURAN-II (FOR MUSLIMS) / SOCIETY AND ETHICS (FOR NON-MUSLIMS & FOREIGNERS)	1(0-1)	GEC

Course Code	Title	Credit Hours	Course
TD-401	FUNDAMENTALS OF DESIGN	2(0-2)	IDC
	<b>Total Credit Hours</b>	<b>18(9-9)</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
FD- 402	DRAPING	3(1-2)	MC
FD-404	FASHION DESIGNING STUDIO II	3(1-2)	MC
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)	GEC
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)	GEC
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)	GEC
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GEC
GD-406	STUDIO PHOTOGRAPHY	2(1-1)	IDC
TD-406	TEXTILE EMBELLISHMENT TECHNIQUES	3(0-3)	IDC
IS-403	ROHANIAH (FOR MUSLIMS)/ MORAL PHILOSOPHY (FOR NON-MUSLIMS AND FOREIGNERS)	1(1-0)	NCC
	<b>Total Credit Hours</b>	<b>20(12-8)</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
FD- 501	FASHION DESIGN STUDIO III	3(1-2)	MC
FD-503	ADVANCED SEWING	3(1-2)	MC
FD-505 <sup>B</sup>	DIGITAL FASHION I	3(1-2)	MC

Course Code	Title	Credit Hours	Course
FD-507	EXPERIMENTAL DRAPING	3(1-2)	MC
FD-510	TEXTILE DESIGN	2(1-1)	MC
AD-509	PRINTING & PRINT MAKING	3(1-2)	IDC
TD-505	FASHION AND TEXTILE MARKETING I	3(2-1)	IDC
	<b>Total Credit Hours</b>	<b>20(8-12)</b>	

**Semester 6**

Course Code	Title	Credit Hours	Course
FD-502	FASHION DESIGN STUDIO IV	3(1-2)	MC
FD-504	SEWING AND PATTERN MAKING	3(1-2)	MC
FD-508	ADVANCED DRAPING TECHNIQUE	3(1-2)	MC
FD-506 <sup>c</sup>	DIGITAL FASHION II	3(1-2)	MC
TC-508	HISTORY OF COSTUME AND FASHION	3(2-1)	IDC
TD-502	FASHION ILLUSTRATIONS	3(0-3)	IDC
	<b>Total Credit Hours</b>	<b>18(6-12)</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
FD-601	FASHION DESIGN STUDIO DEVELOPMENT	3(1-2)	MC
FD-603	HAUTE COUTURE DRAPING	3(1-2)	MC
FD-605	FASHION ACCESSORIES	3(1-2)	MC
FD-607 <sup>d</sup>	INDUSTRIAL STITCHING MACHINERY	3(1-2)	MC

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
AD-601	ESSENTIALS OF INTERIOR DESIGN	3(1-2)	IDC
	<b>Total Credit Hours</b>	<b>15(5-10)</b>	

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>	<b>Course</b>
FD-602	FASHION FORECAST	3(1-2)	MC
FD-604	SUSTAINABLE FASHION	3(2-1)	MC
FD-606	BRAND MANAGEMENT	3(2-1)	MC
FD-610	CAPSTONE PROJECT	3(0-3)	MC
FD-612	INTERNSHIP	3(0-3)	MC
	<b>Total Credit Hours</b>	<b>15(5-10)</b>	

<sup>a</sup>This course will be in module by Institute of Home Sciences and Department of Fibre and Textile Technology.

<sup>b</sup>This course will be in module by Institute of Home Sciences and Department of Computer Science.

<sup>c</sup>This course will be in module by Institute of Home Sciences and Department of Computer Science.

<sup>d</sup>This course will be in module by Institute of Home Sciences and Department of Fibre and Textile Technology.

## Faculty of Sciences

### BS (BIOCHEMISTRY)

Course Code	Title	Credit Hours
FA-310	INTRODUCCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
<b>Total Credit Hours</b>		<b>30</b>

Course Code	Title	Credit Hours
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
CHEM-311	ORGANIC CHEMISTRY-II	3(3-0)
BOT-403	CELL BIOLOGY, GENETICS AND EVOLUTION	4(3-1)
BOT-404	PLANT PHYSIOLOGY AND ECOLOGY	4(3-1)
CHEM-408	FUNDAMENTALS OF PHYSICAL CHEMISTRY	4(3-1)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
BINFO-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
<b>Total Credit Hours</b>		<b>34</b>
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
BIOCHEM-307	BIOCHEMICAL ANALYSIS	3(1-2)
BIOCHEM-403	BIOSAFETY AND ETHICS	3(3-0)
BIOCHEM-404	ENZYMOLOGY	3(3-0)
BIOCHEM-405	NUTRITIONAL BIOCHEMISTRY	3(3-0)
BIOCHEM-505	BIOCHEMISTRY OF CARBOHYDRATES	3(3-0)
BIOCHEM-506	BIOCHEMISTRY OF PROTEINS	3(3-0)
BIOCHEM-507	BIOCHEMISTRY OF LIPIDS	3(3-0)
BIOCHEM-508	BIOCHEMISTRY OF NUCLEIC ACIDS	3(3-0)
BIOCHEM-509	ENZYME BIOTECHNOLOGY	3(0-3)
BIOCHEM-510	INDUSTRIAL MANAGEMENT AND QUALITY CONTROL IN BIOCHEMISTRY	3(3-0)

Course Code	Title	Credit Hours
BIOCHEM-511	PLANT BIOCHEMISTRY	3(3-0)
BIOCHEM-512	INTRODUCTION TO FERMENTATION BIOTECHNOLOGY	3(3-0)
BIOCHEM-513	MOLECULAR BIOCHEMISTRY	3(3-0)
BIOCHEM-514	BIOCHEMICAL TECHNIQUES	3(1-2)
BIOCHEM-515	CLINICAL BIOCHEMISTRY	4(2-2)
BIOCHEM-516	ENZYME KINETICS	3(3-0)
BIOCHEM-517	BIOCHEMISTRY OF HUMAN DISEASES	3(3-0)
BIOCHEM-601	WATER AND MINERAL METABOLISM	3(3-0)
BIOCHEM-602	BIOCHEMISTRY OF VITAMINS	3(3-0)
BIOCHEM-603	BIOMEMBRANES AND CELL SIGNALING	3(3-0)
BIOCHEM-604	BIOCHEMICAL AND MOLECULAR DIAGNOSIS	3(2-1)
BIOCHEM-605	MOLECULAR BIOTECHNOLOGY	3(2-1)
BIOCHEM-606	ENVIRONMENTAL BIOCHEMISTRY	3(3-0)
BIOCHEM-620	SEMINAR	1 (1-0)
	<b>Total Credit Hours</b>	<b>74</b>
BIOCHEM-621	INTERNSHIP	3(0-3)
BIOCHEM-622	TECHNICAL REPORT	3(0-3)
	<b>Total Credit Hours</b>	<b>06</b>
	<b>GRAND TOTAL</b>	<b>144</b>

**Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2 (2-0)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG -314	EXPOSITORY WRITING	3(3-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
CHEM-311	ORGANIC CHEMISTRY-II	3(3-0)
BOT-403	CELL BIOLOGY, GENETICS AND EVOLUTION	4(3-1)
BIOCHEM-307	BIOCHEMICAL ANALYSIS	3(1-2)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
IS-402/ SSH-403	TARJMA TULQURAN/ INTERFAITH HARMONY	Non-Credit
<b>Total Credit Hours</b>		<b>20</b>

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
BOT-404	PLANT PHYSIOLOGY AND ECOLOGY	4(3-1)
CHEM-408	FUNDAMENTALS OF PHYSICAL CHEMISTRY	4(3-1)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
BIOCHEM-403	BIO SAFETY AND ETHICS	3(3-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
<b>Total Credit Hours</b>		<b>21</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-403/ SSH-404	Rohaniat/ MORAL PHILOSOPHY	Non-Credit
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
BIOCHEM-404	ENZYMOLOGY	3(3-0)
BIOCHEM-405	NUTRITIONAL BIOCHEMISTRY	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 5**

Course Code	Title	Credit Hours
BIOCHEM-505	BIOCHEMISTRY OF CARBOHYDRATES	3(3-0)
BIOCHEM-506	BIOCHEMISTRY OF PROTEINS	3(3-0)
BIOCHEM-507	BIOCHEMISTRY OF LIPIDS	3(3-0)
BIOCHEM-508	BIOCHEMISTRY OF NUCLEIC ACIDS	3(3-0)
BIOCHEM-509	ENZYME BIOTECHNOLOGY	3(0-3)
BIOCHEM-510	INDUSTRIAL MANAGEMENT AND QUALITY CONTROL IN BIOCHEMISTRY	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 6**

Course Code	Title	Credit Hours
BIOCHEM-511	PLANT BIOCHEMISTRY	3(3-0)
BIOCHEM-512	INTRODUCTION TO FERMENTATION BIOTECHNOLOGY	3(3-0)
BIOCHEM-513	MOLECULAR BIOCHEMISTRY	3(3-0)
BIOCHEM-514	BIOCHEMICAL TECHNIQUES	3(1-2)
BIOCHEM-515	CLINICAL BIOCHEMISTRY	4(2-2)
BIOCHEM-516	ENZYME KINETICS	3(3-0)
BIOCHEM-517	BIOCHEMISTRY OF HUMAN DISEASES	3(3-0)
	<b>Total Credit Hours</b>	<b>22</b>

**Semester 7**

Course Code	Title	Credit Hours
BIOCHEM-601	WATER AND MINERAL METABOLISM	3(3-0)
BIOCHEM-602	BIOCHEMISTRY OF VITAMINS	3(3-0)
BIOCHEM-603	BIO MEMBRANES AND CELL SIGNALING	3(3-0)
BIOCHEM-604	BIOCHEMICAL AND MOLECULAR DIAGNOSIS	3(3-0)
BIOCHEM-605	MOLECULAR BIOTECHNOLOGY	3(2-1)
BIOCHEM-606	ENVIRONMENTAL BIOCHEMISTRY	3(3-0)
BInfo-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
BIOCHEM-620	SEMINAR	1 (1-0)
<b>Total Credit Hours</b>		<b>22</b>

**Semester 8**

Course Code	Title	Credit Hours
BIOCHEM-621	INTERNSHIP	3(0-3)
BIOCHEM-622	CAPSTONE PROJECT	3(0-3)
<b>Total Credit Hours</b>		<b>6</b>

**BS (BOTANY)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING- I	3(3-0)

Course Code	Title	Credit Hours
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
IS-402/SSH- 403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
IS-403	ROHANIAAT	No-Credit
<b>Total Credit Hours (a)</b>		<b>30</b>
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
BIOTECH-402	FUNDAMENTALS OF BIOTECHNOLOGY	3(2-1)
BIOCHEM-511	PLANT BIOCHEMISTRY	3(3-0)
<b>Total Credit Hours (b)</b>		<b>26</b>

Course Code	Title	Credit Hours
BOT-301	DIVERSITY OF PLANTS	4(3-1)
BOT-302	PLANT SYSTEMATICS, ANATOMY AND EMBRYOLOGY	4(3-1)
BOT-403	CELL BIOLOGY, GENETICS AND EVOLUTION	4(3-1)
BOT-404	PLANT PHYSIOLOGY AND ECOLOGY	4(3-1)
BOT-405	BIODIVERSITY AND CONSERVATION	4(3-1)
BOT-504	PHYCOLOGY AND BRYOLOGY	3(2-1)
BOT-505	DIVERSITY OF VASCULAR PLANTS	2(2-0)
BOT-506	PLANT SYSTEMATICS	2(2-0)
BOT-507	PLANT ANATOMY	2(2-0)
BOT-508	PLANT MORPHOLOGY, SYSTEMATICS AND ANATOMY LAB	2(0-2)
BOT-509	ADVANCED PLANT PHYSIOLOGY	3(2-1)
BOT-510	AUTECOLOGY	2(2-0)
BOT-511	ENVIRONMENTAL BIOLOGY	2(2-0)
BOT-512	SYNECOLOGY	2(2-0)
BOT-513	PLANT ECOLOGY AND ENVIRONMENTAL BIOLOGY LAB	2(2-0)
BOT-514	INTRODUCTORY GENETICS	2(2-0)
BOT-515	BACTERIOLOGY AND VIROLOGY	3(2-1)
ELECTIVE-II	ELECTIVE COURSE-I	3 CH
ELECTIVE-III	ELECTIVE COURSE-II	3 CH
BOT-601	PLANT MINERAL NUTRITION AND GROWTH REGULATION	2(2-0)
BOT-602	PLANT METABOLISM	2(2-0)

Course Code	Title	Credit Hours
BOT-603	PLANT METABOLISM AND MINERAL NUTRITION LAB	2(0-2)
BOT-604	MOLECULAR BIOLOGY	2(2-0)
BOT-605	ADVANCED GENETICS	2(2-0)
BOT-606	MOLECULAR BIOLOGY, GENETICS AND BIOINFORMATICS LAB	2(0-2)
BOT-607	MYCOLOGY AND PLANT PATHOLOGY	3(2-1)
BOT-608	ETHNOBOTANY	3(2-1)
BOT-620	SEMINAR	1(1-0)
<b>Total Credit Hours (c)</b>		<b>72</b>
BOT-621	INTERNSHIP	3(0-3)
BOT-622	CAPSTONE PROJECT	3(0-3)
<b>Total Credit Hours (d)</b>		<b>6</b>
<b>Grand Total (a+b+c+d)</b>		<b>134</b>

### Semester 1

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING- I	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
BOT-301	DIVERSITY OF PLANTS	4(3-1)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
STAT-408	QUANTITATIVE REASONING- II	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
BOT-302	PLANT SYSTEMATICS, ANATOMY AND EMBRYOLOGY	4(3-1)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)/ 2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0)/NC
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
BOT-403	CELL BIOLOGY, GENETICS AND EVOLUTION	4(3-1)
BIOTECH-402	FUNDAMENTALS OF BIOTECHNOLOGY	3(2-1)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 4**

Course Code	Title	Credit Hours
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
IS-403	Rohaniat	1(1-0)/NC
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
BIOCHEM-511	PLANT BIOCHEMISTRY	3(3-0)
BOT-404	PLANT PHYSIOLOGY AND ECOLOGY	4(3-1)
BOT-405	BIODIVERSITY AND CONSERVATION	4(3-1)
<b>TOTAL CREDITS HOURS</b>		<b>20</b>

**Semester 5**

Course Code	Title	Credit Hours
BOT-504	PHYCOLOGY AND BRYOLOGY	3(2-1)
BOT-505	DIVERSITY OF VASCULAR PLANTS	2(2-0)
BOT-506	PLANT SYSTEMATICS	2(2-0)
BOT-507	PLANT ANATOMY	2(2-0)
BOT-508	PLANT MORPHOLOGY, SYSTEMATICS AND ANATOMY LAB	2(0-2)
BOT-509	ADVANCED PLANT PHYSIOLOGY	3(2-1)
BOT-510	AUTECOLOGY	2(2-0)
<b>Total Credit Hours</b>		<b>16</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BOT-511	ENVIRONMENTAL BIOLOGY	2(2-0)
BOT-512	SYNECOLOGY	2(2-0)
BOT-513	PLANT ECOLOGY AND ENVIRONMENTAL BIOLOGY LAB	2(2-0)
BOT-514	INTRODUCTORY GENETICS	2(2-0)
BOT-515	BACTERIOLOGY AND VIROLOGY	3(2-1)
ELECTIVE-II	ELECTIVE COURSE-I	3 CH
ELECTIVE-III	ELECTIVE COURSE-II	3 CH
<b>Total Credit Hours</b>		<b>17</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BOT-601	PLANT MINERAL NUTRITION AND GROWTH REGULATION	2(2-0)
BOT-602	PLANT METABOLISM	2(2-0)
BOT-603	PLANT METABOLISM AND MINERAL NUTRITION LAB	2(0-2)
BOT-604	MOLECULAR BIOLOGY	2(2-0)
BOT-605	ADVANCED GENETICS	2(2-0)
BOT-606	MOLECULAR BIOLOGY, GENETICS AND BIOINFORMATICS LAB	2(0-2)
BOT-607	MYCOLOGY AND PLANT PATHOLOGY	3(2-1)
BOT-608	ETHNOBOTANY	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 8**

Course Code	Title	Credit Hours
BOT-620	SEMINAR	1(1-0)
BOT-621	INTERNSHIP	3(0-3)
BOT-622	CAPSTONE PROJECT	3(0-3)
	<b>Total Credit Hours</b>	<b>07</b>

**BS (CHEMISTRY)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)

Course Code	Title	Credit Hours
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
	<b>Total Credit Hours</b>	<b>30</b>
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
BOT-404	PLNAT PHYSIOLOGY AND ECOLOGY	4(3-1)
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
MATH-512	MATHEMATICS FOR CHEMISTRY	3(3-0)
PY-401	RENEWABLE ENERGY RESOURCES	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
CHEM-407	CHEMISTRY OF ENVIRONMENT	3(3-0)
CHEM-408	FUNDAMENTALS OF PHYSICAL CHEMISTRY	4(3-1)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
CHEM-410	APPLIED CHEMISTRY-I	3(2-1)
CHEM-411	INORGANIC CHEMISTRY-I	3(3-0)
CHEM-412	ORGANIC CHEMISTRY-I	3(3-0)
CHEM-413	EXPERIMENTAL PHYSICAL CHEMISTRY-I	2(0-2)
CHEM-506	PHYSICAL CHEMISTRY-I	3(3-0)
CHEM-507	ABSORPTION AND EMISSION SPECTROSCOPY	3(2-1)

Course Code	Title	Credit Hours
CHEM-508	EXPERIMENTAL INORGANIC CHEMISTRY-I	2(0-2)
CHEM-509	INORGANIC CHEMISTRY-II	3(3-0)
CHEM-510	APPLIED CHEMISTRY-II	3(3-0)
CHEM-511	ORGANIC CHEMISTRY-II	3(3-0)
CHEM-512	EXPERIMENTAL ORGANIC CHEMISTRY-1	2(0-2)
CHEM-513	PHYSICAL CHEMISTRY-II	3(3-0)
CHEM-514	ORGANIC REDOX REACTIONS	3(3-0)
CHEM-515	CONDENSATION AND HETEROCYCLIC CHEMISTRY	3(3-0)
CHEM-516	POLYMER CHEMISTRY	2(2-0)
CHEM-517	COLLOIDS AND SURFACE CHEMISTRY	3(3-0)
CHEM-518	ORGANOMETALLIC COMPOUNDS	3(3-0)
CHEM-519	CHROMATOGRAPHIC TECHNIQUES	3(2-1)
CHEM-601	INORGANIC MATERIALS	3(3-0)
CHEM-602	CHEMISTRY OF INORGANIC POLYMERS	3(3-0)
CHEM-603	KINETICS OF INORGANIC REACTION MECHANISM	3(3-0)
CHEM-604	ELECTROANALYTICAL TECHNIQUES	3(3-0)
CHEM-605	BIOINORGANIC AND ATMOSPHERIC CHEMISTRY	3(3-0)
CHEM-606	EXPERIMENTAL INORGANIC CHEMISTRY-II	2(0-2)
CHEM-607	MOLECULAR REARRANGEMENT AND FREE RADICAL REACTIONS	3(3-0)
CHEM-608	EXPERIMENTAL ORGANIC CHEMISTRY-II	2(0-2)
CHEM-609	MATERIALS AND DRUG ANALYSIS	3(3-0)

Course Code	Title	Credit Hours
CHEM-610	PERICYCLIC REACTIONS AND REACTIVE INTERMEDIATES	3(3-0)
CHEM-611	MEDICINAL AND NATURAL PRODUCTS CHEMISTRY	3(3-0)
CHEM-612	DESIGNING OF ORGANIC SYNTHESIS	3(3-0)
CHEM-613	QUANTUM CHEMISTRY AND SPECTROSCOPY	3(3-0)
CHEM-614	NUCLEAR AND PHOTOCHEMISTRY	3(3-0)
CHEM-615	ELECTROCHEMISTRY	3(3-0)
CHEM-616	SPECIAL TOPICS IN PHYSICAL CHEMISTRY	3(3-0)
CHEM-617	EXPERIMENTAL PHYSICAL CHEMISTRY-II	2(0-2)
CHEM-618	EXPERIMENTAL ANALYTICAL CHEMISTRY	2(0-2)
CHEM-619	THERMAL METHODS OF ANALYSIS	3(3-0)
CHEM-620	SEMINAR	1(1-0)
CHEM-623	RADIOANALYTICAL TECHNIQUES	3(3-0)
CHEM-624	SURFACE ANALYTICAL TECHNIQUES	3(3-0)
CHEM-625	INDUSTRAL MANAGEMENT AND QUALITY CONTROL	2(2-0)
<b>Total Credit Hours</b>		<b>88</b>
CHEM-621	INTERNSHIP	3(0-3)
CHEM-622	CAPSTONE PROJECT	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>
<b>Grand Total</b>		<b>141</b>

**ELECTIVE COURSES FOR OTHER DEPARTMENTS**

Course Code	Title	Credit Hours
CHEM-301	BASIC ORGANIC CHEMISTRY	3(3-0)
CHEM-302	ENVIRONMENTAL CHEMISTRY AND BIOCHEMISTRY	4(3-1)
CHEM-303	INTRODUCTION TO ANALYTICAL CHEMISTRY	3(2-1)
CHEM-304	INTRODUCTION TO ORGANIC CHEMISTRY	3(3-0)
CHEM-306	BASIC CHEMISTRY	3(3-0)
CHEM-307	ORGANIC CHEMISTRY	3(2-1)
CHEM-308	INTRODUCTION TO GENERAL CHEMISTRY	3(2-1)
CHEM-401	INTRODUCTORY INDUSTRIAL CHEMISTRY	2(1-1)
CHEM-403	ENVIRONMENTAL CHEMISTRY	3(2-1)
CHEM-405	PHOTOACTIVE MATERIALS AND THEIR CHARACTERIZATION	3(2-1)
CHEM-406	INDUSTRIAL CHEMISTRY	2(1-1)
CHEM-501	PHYSICAL CHEMISTRY-I	3(2-1)
CHEM-503	FUNDAMENTALS OF CHEMISTRY	3(3-0)

**Semester 1**

Course Code	Title	Credit Hours
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)

Course Code	Title	Credit Hours
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 2**

Course Code	Title	Credit Hours
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
BOT-404	PLNAT PHYSIOLOGY AND ECOLOGY	4(3-1)
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 3**

Course Code	Title	Credit Hours
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
EDU- 306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
MATH-408	QUANTITATIVE REASONING -I	3(3-0)
MATH-512	MATHEMATICS FOR CHEMISTRY	3(3-0)
CHEM-407	CHEMISTRY OF ENVIRONMENT	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CHEM-408	FUNDAMENTALS OF PHYSICAL CHEMISTRY	4(3-1)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-403/ SSH-404	ROHANIAT / MORAL PHILOSOPHY	No-Credit
BMS-402	ENTERPRNEURSHIP	2(2-0)
PY-401	RENEWABLE ENERGY RESOURCES	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
CHEM-410	APPLIED CHEMISTRY-I	3(2-1)
CHEM-411	INORGANIC CHEMISTRY-I	3(3-0)
CHEM-412	ORGANIC CHEMISTRY-I	3(3-0)
CHEM-413	EXPERIMENTAL PHYSICAL CHEMISTRY-I	2(0-2)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CHEM-506	PHYSICAL CHEMISTRY-I	3(3-0)
CHEM-507	ABSORPTION AND EMISSION SPECTROSCOPY	3(2-1)
CHEM-508	EXPERIMENTAL INORGANIC CHEMISTRY-I	2(0-2)

Course Code	Title	Credit Hours
CHEM-509	INORGANIC CHEMISTRY-II	3(3-0)
CHEM-510	APPLIED CHEMISTRY-II	3(3-0)
CHEM-511	ORGANIC CHEMISTRY-II	3(3-0)
CHEM-512	EXPERIMENTAL ORGANIC CHEMISTRY-I	2(0-2)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 6**

Course Code	Title	Credit Hours
CHEM-513	PHYSICAL CHEMISTRY-II	3(3-0)
CHEM-514	ORGANIC REDOX REACTIONS	3(3-0)
CHEM-515	CONDENSATION AND HETEROCYCLIC CHEMISTRY	3(3-0)
CHEM-516	POLYMER CHEMISTRY	2(2-0)
CHEM-517	COLLOIDS AND SURFACE CHEMISTRY	3(3-0)
CHEM-518	ORGANOMETALLIC COMPOUNDS	3(3-0)
CHEM-519	CHROMATOGRAPHIC TECHNIQUES	3(2-1)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 7**

SPECIALIZATION: (INORGANIC/ORGANIC/PHYSICAL/ANALYTICAL CHEMISTRY)

Course Code	Title	Credit Hours
CHEM-601	INORGANIC MATERIALS	3(3-0)
CHEM-602	CHEMISTRY OF INORGANIC POLYMERS	3(3-0)

Course Code	Title	Credit Hours
CHEM-603	KINETICS OF INORGANIC REACTION MECHANISM	3(3-0)
CHEM-604	ELECTROANALYTICAL TECHNIQUES	3(3-0)
CHEM-605	BIOINORGANIC AND ATMOSPHERIC CHEMISTRY	3(3-0)
CHEM-606	EXPERIMENTAL INORGANIC CHEMISTRY-II	2(0-2)
TGM-601	TUTORIAL GROUP MEETING FOR SOFT SKILLS	No-Credit
	<b>Total Credit Hours</b>	<b>17</b>

**OR**

Course Code	Title	Credit Hours
CHEM-607	MOLECULAR REARRANGEMENT AND FREE RADICAL REACTIONS	3(3-0)
CHEM-608	EXPERIMENTAL ORGANIC CHEMISTRY-II	2(0-2)
CHEM-609	MATERIALS AND DRUG ANALYSIS	3(3-0)
CHEM-610	PERICYCLIC REACTIONS AND REACTIVE INTERMEDIATES	3(3-0)
CHEM-611	MEDICINAL AND NATURAL PRODUCTS CHEMISTRY	3(3-0)
CHEM-612	DESIGNING OF ORGANIC SYNTHESIS	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>

**OR**

Course Code	Title	Credit Hours
CHEM-604	ELECTROANALYTICAL TECHNIQUES	3(3-0)
CHEM-613	QUANTUM CHEMISTRY AND SPECTROSCOPY	3(3-0)
CHEM-614	NUCLEAR AND PHOTOCHEMISTRY	3(3-0)
CHEM-615	ELECTROCHEMISTRY	3(3-0)
CHEM-616	SPECIAL TOPICS IN PHYSICAL CHEMISTRY	3(3-0)

Course Code	Title	Credit Hours
CHEM-617	EXPERIMENTAL PHYSICAL CHEMISTRY-II	2(0-2)
	<b>Total Credit Hours</b>	<b>17</b>

**OR**

Course Code	Title	Credit Hours
CHEM-604	ELECTROANALYTICAL TECHNIQUES	3(3-0)
CHEM-609	MATERIALS AND DRUG ANALYSIS	3(2-1)
CHEM-618	EXPERIMENTAL ANALYTICAL CHEMISTRY	2(0-2)
CHEM-619	THERMAL METHODS OF ANALYSIS	3(3-0)
CHEM-623	RADIOANALYTICAL TECHNIQUES	3(3-0)
CHEM-624	SURFACE ANALYTICAL TECHNIQUES	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 8**

SPECIALIZATION: (INORGANIC/ORGANIC/PHYSICAL /ANALYTICAL CHEMISTRY)

Course Code	Title	Credit Hours
CHEM-620	SEMINAR	1(1-0)
CHEM-621	INTERNSHIP	3(0-3)
CHEM 622	CAPSTONE PROJECT	3(0-3)
CHEM-625	INDUSTRIAL MANAGEMENT AND QUALITY CONTROL	2(2-0)
	<b>Total Credit Hours</b>	<b>09</b>

**BS (PHYSICS)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
IS-402/SSH- 403	TARJMA TULQURAN/ INTERFAITH HARMONY	No-Credit
IS-403/SSH- 404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
<b>Total Credit Hours</b>		<b>30</b>
MATH-303	CALCULUS-I	4(4-0)
MATH-305	CALCULUS-II	3(3-0)

Course Code	Title	Credit Hours
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-503	ORDINARY DIFFERENTIAL EQUATIONS	3(3-0)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
	<b>Total Credit Hours</b>	<b>16</b>
PY-303	MECHANICS	4(4-0)
PY-304	ELECTRICITY AND MAGNETISM	4(4-0)
PY-306	HEAT AND THERMODYNAMICS	3(3-0)
PY-402	WAVES AND OSCILLATIONS	3(3-0)
PY-403	MODERN PHYSICS	3(3-0)
PY-404	PHYSICS LAB-I	3(0-3)
PY-406	OPTICS	3(3-0)
PY-407	PHYSICS LAB-II	3(0-3)
PY-502	METHODS OF MATHEMATICAL PHYSICS-I	3(3-0)
PY-503	CLASSICAL MECHANICS	3(3-0)
PY-504	ELECTRODYNAMICS-I	3(3-0)
PY-505	ELECTRONICS-I	3(3-0)
PY-506	PHYSICS LAB-III	3(0-3)
PY-507	METHODS OF MATHEMATICAL PHYSICS-II	3(3-0)
PY-508	ELECTRONICS-II	3(3-0)
PY-509	ELECTRODYNAMICS-II	3(3-0)
PY-510	QUANTUM MECHANICS-I	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-511	STATISTICAL PHYSICS	3(3-0)
PY-512	MODERN PHYSICS (LAB-IV)	3(0-3)
PY-513	SOLID STATE PHYSICS-I	3(3-0)
PY-601	ATOMIC AND MOLECULAR PHYSICS	3(3-0)
PY-602	QUANTUM MECHANICS-II	3(3-0)
PY-603	NUCLEAR PHYSICS	3(3-0)
PY-604	INTRODUCTION TO RELATIVITY	3(3-0)
PY-605	ADVANCED ELECTRONICS (LAB-V)	3(0-3)
PY-606	SOLID STATE PHYSICS-II	3(3-0)
PY-6XX	ELECTIVE COURSE-I	3(3-0)
PY-6XX	ELECTIVE COURSE-II	3(3-0)
PY-620	SEMINAR	1(1-0)
<b>Total Credit Hours</b>		<b>87</b>
PY-621	INTERNSHIP	3(0-3)
PY-622	CAPSTONE PROJECT	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>

### **Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-303	MECHANICS	4(4-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
MATH-303	CALCULUS-I	4(4-0)

Course Code	Title	Credit Hours
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
SSH-303	IDEALOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 2**

Course Code	Title	Credit Hours
PY-304	ELECTRICITY AND MAGNETISM	4(4-0)
PY-306	HEAT AND THERMODYNAMICS	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-305	CALCULUS-II	3(3-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 3**

Course Code	Title	Credit Hours
PY-402	WAVES AND OSCILLATIONS	3(3-0)
PY-403	MODERN PHYSICS	3(3-0)
PY-404	PHYSICS LAB-I	3(0-3)
MATH-404	LINEAR ALGEBRA	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
BMS-402	ENTREPRENEURSHIP	2(2-0)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-406	OPTICS	3(3-0)
PY-407	PHYSICS LAB-II	3(0-3)
MATH-503	ORDINARY DIFFERENTIAL EQUATIONS	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
CHEM-409	FUNDAMENTALS OF ANALYTICAL CHEMISTRY	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-502	METHODS OF MATHEMATICAL PHYSICS-I	3(3-0)
PY-503	CLASSICAL MECHANICS	3(3-0)

Course Code	Title	Credit Hours
PY-504	ELECTRODYNAMICS-I	3(3-0)
PY-505	ELECTRONICS-I	3(3-0)
PY-506	PHYSICS LAB-III	3(0-3)
PY-511	STATISTICAL PHYSICS	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 6**

Course Code	Title	Credit Hours
PY-507	METHODS OF MATHEMATICAL PHYSICS-II	3(3-0)
PY-508	ELECTRONICS-II	3(3-0)
PY-509	ELECTRODYNAMICS-II	3(3-0)
PY-510	QUANTUM MECHANICS-I	3(3-0)
PY-512	MODERN PHYSICS (LAB-IV)	3(0-3)
PY-513	SOLID STATE PHYSICS-I	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 7**

Course Code	Title	Credit Hours
PY-601	ATOMIC AND MOLECULAR PHYSICS	3(3-0)
PY-602	QUANTUM MECHANICS-II	3(3-0)
PY-603/PY-604	NUCLEAR PHYSICS/INTRODUCTION TO RELATIVITY	3(3-0)
PY-605	ADVANCED ELECTRONICS (LAB-V)	3(0-3)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-606	SOLID STATE PHYSICS-II	3(3-0)
PY-6XX	ELECTIVE COURSE-I	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-620	SEMINAR	1(1-0)
PY-621	INTERNSHIP	3(0-3)
PY-622	CAPSTONE PROJECT	3(0-3)
PY-6XX	ELECTIVE COURSE-II	3(3-0)
	<b>Total Credit Hours</b>	<b>10</b>

### **List of Elective Courses**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-607	COMPUTATIONAL PHYSICS	3(3-0)
PY-608	INTRODUCTION TO LASERS	3(3-0)
PY-609	PLASMA PHYSICS	3(3-0)
PY-610	STRUCTURE AND PROPERTIES OF MATERIALS	3(3-0)
PY-611	INDUSTRIAL PLASMA PRODUCTION TECHNIQUES	3(3-0)
PY-612	PHYSICS OF SOLAR CELLS	3(3-0)
PY-613	ASTROPHYSICS	3(3-0)
PY-614	NANODEVICES	3(3-0)

Course Code	Title	Credit Hours
PY-615	MEDICAL PHYSICS	3(3-0)
	<b>Total Credit Hours</b>	<b>27</b>

## BS (ZOOLOGY)

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
MATH-408	QUANTITATIVE REASONING -I	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)/ 2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	1(1-0)

Course Code	Title	Credit Hours
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	1(1-0)
	<b>Total Credit Hours</b>	<b>32</b>
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
BOT-301	DIVERSITY OF PLANTS	4(3-1)
ABG-510	GENERAL GENETICS	4(3-1)
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
BINFO-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
	<b>Total Credit Hours</b>	<b>22</b>
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
ZOOL-402	ANIMAL CELL BIOLOGY	4(3-1)
ZOOL-406	INTRODUCTION TO WILDLIFE	4(3-1)
ZOOL-407	BIOLOGICAL TECHNIQUES	3(1-2)
ZOOL-408	ANIMAL FORM AND FUNCTION-I	4(3-1)
ZOOL-501	ANIMAL ECOLOGY	3(2-1)
ZOOL-502	ICHTHYOLOGY	4(3-1)
ZOOL-503	ANIMAL FORM AND FUNCTION-II	4(3-1)
ZOOL-504	ETHOLOGY	3(2-1)
ZOOL-505	EVOLUTION	3(3-0)
ZOOL-506	PRINCIPLES OF SYSTEMATICS	3(2-1)

Course Code	Title	Credit Hours
ZOOL-507	COMPARATIVE ANIMAL PHYSIOLOGY	3(2-1)
ZOOL-508	ECONOMIC ZOOLOGY	3(2-1)
ZOOL-509	FISHERIES	4(3-1)
ZOOL-510	ZOOGEOGRAPHY AND PALEONTOLOGY	3(2-1)
ZOOL-601	ENVIRONMENTAL TOXICOLOGY	3(2-1)
ZOOL-602	CONSERVATION BIOLOGY	4(3-1)
ZOOL-603	DEVELOPMENTAL BIOLOGY	4(3-1)
ZOOL-604	FUNDAMENTALS OF MOLECULAR BIOLOGY	3(2-1)
ZOOL-620	SEMINAR	1(1-0)
<b>Total Credit Hours</b>		
ZOOL-621	INTERNSHIP	3(0-3)
ZOOL-622	TECHNICAL REPORT	3(0-3)
<b>Total Credit Hours</b>		<b>06</b>
<b>GRAND TOTAL</b>		<b>132</b>

**Semester 1**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING- I	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CHEM-310	FUNDAMENTALS OF INORGANIC CHEMISTRY	4(3-1)
ZOOL-301	ANIMAL DIVERSITY-I	4(3-1)
	<b>Total Credit Hours</b>	<b>20</b>

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-314	EXPOSITORY WRITING	3(3-0)
STAT-408	QUANTITATIVE REASONING- II	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
CHEM-311	FUNDAMENTALS OF ORGANIC CHEMISTRY	4(3-1)
BOT-301	DIVERSITY OF PLANTS	4(3-1)
ZOOL-302	ANIMAL DIVERSITY-II	4(3-1)
	<b>Total Credit Hours</b>	<b>20</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PY-307	FUNDAMENTALS OF NATURAL SCIENCE	3(2-1)
IS-401/SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)/ 2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
IS-402/SSH-403	INTERFAITH HORMNY / TARJMA TUL QURAN	1(1-0)
ABG-510	GENERAL GENETICS	4(3-1)

Course Code	Title	Credit Hours
BIOCHEM-300	ESSENTIALS OF BIOCHEMISTRY	3(3-0)
ZOOL-402	ANIMAL CELL BIOLOGY	4(3-1)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 4**

Course Code	Title	Credit Hours
IS-403	ROHANIA	1(1-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
BINFO-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
ZOOL-406	INTRODUCTION TO WILDLIFE	4(3-1)
ZOOL-407	BIOLOGICAL TECHNIQUES	3(1-2)
ZOOL-408	ANIMAL FORM AND FUNCTION-I	4(3-1)
	<b>TOTAL CREDITS HOURS</b>	<b>17</b>

**Semester 5**

Course Code	Title	Credit Hours
ZOOL-501	ANIMAL ECOLOGY	3(2-1)
ZOOL-502	ICHTHYOLOGY	4(3-1)
ZOOL-503	ANIMAL FORM AND FUNCTION-II	4(3-1)
ZOOL-504	ETHOLOGY	3(2-1)
ZOOL-505	EVOLUTION	3(3-0)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ZOOL-506	PRINCIPLES OF SYSTEMATICS	3(2-1)
ZOOL-507	COMPARATIVE ANIMAL PHYSIOLOGY	4(3-1)
ZOOL-508	ECONOMIC ZOOLOGY	3(2-1)
ZOOL-509	FISHERIES	4(3-1)
ZOOL-510	ZOOGEOGRAPHY AND PALEONTOLOGY	3(2-1)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ZOOL-601	ENVIRONMENTAL TOXICOLOGY	3(2-1)
ZOOL-602	CONSERVATION BIOLOGY	4(3-1)
ZOOL-603	DEVELOPMENTAL BIOLOGY	4(3-1)
ZOOL-604	FUNDAMENTALS OF MOLECULAR BIOLOGY	3(2-1)
	<b>Total Credit Hours</b>	<b>14</b>

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ZOOL-620	SEMINAR	1(1-0)
ZOOL-621	INTERNSHIP	3(0-3)
ZOOL-622	TECHNICAL REPORT	3(0-3)
	<b>Total Credit Hours</b>	<b>07</b>

**BS (COMPUTER SCIENCE)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	Non-Credit
IS-403	ROHANIAT	Non-Credit
<b>Total Credit Hours</b>		<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)

Course Code	Title	Credit Hours
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
PY-305	BASIC ELECTRONIC	3(2-1)
	<b>Total Credit Hours</b>	<b>18</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-504	DIGITAL IMAGE PROCESSING	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-508	CLOUD COMPUTING	3(2-1)

Course Code	Title	Credit Hours
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
SE-514	SOFTWARE QUALITY ENGINEERING	3(2-1)
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
CS-603	COMPILER CONSTRUCTION	3(2-1)
CS-605	DIGITAL SIGNAL PROCESSING	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-613	NUMERICAL ANALYSIS	3(2-1)
CS-620	SEMINAR	1(1-0)
<b>Total Credit Hours</b>		<b>79</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
<b>Total Credit Hours</b>		<b>08</b>
<b>Grand Total</b>		<b>137</b>

**Semester 1**

Course Code	Title	Credit Hours
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PY-305	BASIC ELECTRONIC	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
	<b>Total</b>	<b>20</b>

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401 / SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
	<b>Total</b>	<b>20</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)

Course Code	Title	Credit Hours
SE-401	SOFTWARE ENGINEERING	3(2-1)
IS-403	ROHANIA T	No-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
	<b>Total</b>	<b>17</b>

**Semester 4**

Course Code	Title	Credit Hours
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TUL QURAN	No-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
	<b>Total</b>	<b>17</b>

**Semester 5**

Course Code	Title	Credit Hours
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-509	THEORY OF AUTOMATA	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
	<b>Total</b>	<b>18</b>

### **Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
CS-504	DIGITAL IMAGE PROCESSING	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-508	CLOUD COMPUTING	3(2-1)
CS-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)
SE-514	SOFTWARE QUALITY ENGINEERING	3(2-1)
	<b>Total</b>	<b>18</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
CS-603	COMPILER CONSTRUCTION	3(2-1)
CS-605	DIGITAL SIGNAL PROCESSING	3(2-1)

Course Code	Title	Credit Hours
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-613	NUMERICAL ANALYSIS	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
	<b>Total</b>	<b>20</b>

**Semester 8**

Course Code	Title	Credit Hours
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total</b>	<b>07</b>

**BS (INFORMATION TECHNOLOGY)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)

Course Code	Title	Credit Hours
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-I I	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402/SSH- 403	TARJMA TUL URAN/ INTERFAITH HARMONY	Non-Credit
IS-403	ROHANIAAT	Non-Credit
<b>Total Credit Hours</b>		<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVARIABLE CALCULUS	3(3-0)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
PY-305	BASIC ELECTRONICS	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)

Course Code	Title	Credit Hours
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
IT-502	SYSTEM AND NETWORK ADMINISTRATION	3(2-1)
IT-503	INFORMATION TECHNOLOGY INFRASTRUCTURE	3(2-1)
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-508	CLOUD COMPUTING	3(2-1)
IT-510	INTERNET OF THINGS	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
CS-517	INTRODUCTION TO CYBER SECURITY	3(2-1)
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-605	THEORY OF AUTOMATA	3(2-1)
IT-605	INFORMATION TECHNOLOGY PROJECT MANAGEMENT	3(2-1)
IT-607	NEXT GENERATION NETWORKS	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-620	SEMINAR	1(1-0)
	<b>Total Credit Hours</b>	<b>82</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>8</b>

### **Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PY-305	BASIC ELECTRONICS	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING -I	3(3-0)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401 / SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
SE-401	SOFTWARE ENGINEERING	3(2-1)
IS-403	ROHANIAAT	Non-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVARIABLE CALCULUS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TUL QURAN	Non-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
IT-503	INFORMATION TECHNOLOGY INFRASTRUCTURE	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
CS-517	INTRODUCTION TO CYBER SECURITY	3(2-1)
<b>Total Credit Hours</b>		<b>21</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
IT-502	SYSTEM AND NETWORK ADMINISTRATION	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-508	CLOUD COMPUTING	3(2-1)
IT-510	INTERNET OF THINGS	3(2-1)
CS-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
CS-605	THEORY OF AUTOMATA	3(2-1)
IT-605	INFORMATION TECHNOLOGY PROJECT MANAGEMENT	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
IT-607	NEXT GENERATION NETWORKS	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>7</b>

**BS (SOFTWARE ENGINEERING)**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)

Course Code	Title	Credit Hours
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	Non-Credit
IS-403	ROHANIAAT	Non-Credit
	<b>Total Credit Hours</b>	<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVARIABLE CALCULUS	3(3-0)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
PY-305	BASIC ELECTRONICS	3(2-1)
	<b>Total Credit Hours</b>	<b>18</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)

Course Code	Title	Credit Hours
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
SE-507	NATURAL LANGUAGE PROCESSING	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-509	THEORY OF AUTOMATA	3(2-1)
SE-509	SOFTWARE METRICS	3(2-1)
SE-510	SOFTWARE VERIFICATION AND VALIDATION	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
SE-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
SE-514	SOFTWARE QUALITY ENGINEERING	3(2-1)
SE-516	SOFTWARE DESIGN AND ARCHITECTURE	3(2-1)
SE-518	SOFTWARE CONFIGURATION MANAGEMENT	3(2-1)
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
SE-603	SOFTWARE PROJECT MANAGEMENT	3(2-1)
SE-605	SOFTWARE REQUIREMENT ENGINEERING	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-620	SEMINAR	1(1-0)
<b>Total Credit Hours</b>		<b>82</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)

Course Code	Title	Credit Hours
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Grand Total</b>	<b>140</b>

**Semester 1**

Course Code	Title	Credit Hours
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PY-305	BASIC ELECTRONICS	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING -I	3(3-0)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 2**

Course Code	Title	Credit Hours
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS-401/ SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
<b>Total Credit Hours</b>		<b>20</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
SE-401	SOFTWARE ENGINEERING	3(2-1)
IS-403	ROHANIAAT	No-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVARIABLE CALCULUS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

### **Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TUL QURAN	No-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)

Course Code	Title	Credit Hours
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-412	VISUAL PROGRAMMING	3(2-1)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 5**

Course Code	Title	Credit Hours
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
SE-507	NATURAL LANGUAGE PROCESSING	3(2-1)
CS-509	THEORY OF AUTOMATA	3(2-1)
SE-509	SOFTWARE METRICS	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
	<b>Total Credit Hours</b>	<b>21</b>

**Semester 6**

Course Code	Title	Credit Hours
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
SE-510	SOFTWARE VERIFICATION AND VALIDATION	3(2-1)
SE-512	MOBILE APPLICATION DEVELOPMENT	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SE-514	SOFTWARE QUALITY ENGINEERING	3(2-1)
SE-516	SOFTWARE DESIGN AND ARCHITECTURE	3(2-1)
SE-518	SOFTWARE CONFIGURATION MANAGEMENT	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
SE-603	SOFTWARE PROJECT MANAGEMENT	3(2-1)
SE-605	SOFTWARE REQUIREMENT ENGINEERING	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
<b>Total Credit Hours</b>		<b>20</b>

### **Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
<b>Total Credit Hours</b>		<b>7</b>

**BS (BIOINFORMATICS)**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402	TARJMA TUL QURAN	Non-Credit
IS-403	ROHANIAAT	Non-Credit
	<b>Total Credit Hours</b>	<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVERIABLE CALCULUS	3(3-0)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)

Course Code	Title	Credit Hours
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
	<b>Total Credit Hours</b>	<b>15</b>
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)
BIO-303	FUNDAMENTAL CELLULAR BIOLOGY	3(2-1)
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
BINFO-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
BINFO-404	BIOINFORMATICS METHODS	3(2-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
BINFO-502	COMPUTATIONAL BIOLOGY	3(2-1)
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
BINFO-508	COMPUTATIONAL MOLECULAR EVOLUTION	3(2-1)

Course Code	Title	Credit Hours
PBG-301	BASIC CONCEPTS OF GENETICS	2(1-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-620	SEMINAR	1(1-0)
	DOMAIN ELECTIVE I	3(2-1)
	DOMAIN ELECTIVE II	3(2-1)
	DOMAIN ELECTIVE III	3(2-1)
	DOMAIN ELECTIVE IV	3(2-1)
	DOMAIN ELECTIVE V	3(2-1)
	DOMAIN ELECTIVE VI	3(2-1)
	DOMAIN ELECTIVE VII	3(2-1)
	DOMAIN ELECTIVES VIII	3(2-1)
	<b>Total Credit Hours</b>	<b>84</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>8</b>
	<b>Grand Total</b>	<b>139</b>

**Semester 1**

Course Code	Title	Credit Hours
BIO-303	FUNDAMENTAL CELLULAR BIOLOGY	3(2-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)

Course Code	Title	Credit Hours
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
<b>Total Credit Hours</b>		<b>21</b>

## Semester 2

Course Code	Title	Credit Hours
BIOCHEM-301	ELEMENTARY BIOCHEMISTRY	3(2-1)
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 3**

Course Code	Title	Credit Hours
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
BINFO-403	INTRODUCTION TO BIOINFORMATICS	3(2-1)
IS-403	ROHANIAAT	Non-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVERIABLE CALCULUS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
<b>Total Credit Hours</b>		<b>19</b>

**Semester 4**

Course Code	Title	Credit Hours
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TUL QURAN	Non-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-404	BIOINFORMATICS METHODS	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PBG-301	BASIC CONCEPTS OF GENETICS	2(1-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
	DOMAIN ELECTIVE I	3(2-1)
	DOMAIN ELECTIVE II	3(2-1)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BINFO-502	COMPUTATIONAL BIOLOGY	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
BINFO-508	COMPUTATIONAL MOLECULAR EVOLUTION	3(2-1)
	DOMAIN ELECTIVE III	3(2-1)
	DOMAIN ELECTIVE IV	3(2-1)
	DOMAIN ELECTIVE V	3(2-1)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BINFO-607	SCIENTIFIC WRITING	3(0-3)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
	DOMAIN ELECTIVE VI	3(2-1)
	DOMAIN ELECTIVE VII	3(2-1)
	DOMAIN ELECTIVE VIII	3(2-1)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>07</b>

**Elective Courses**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ABG-401	INTRODUCTORY POPULATION GENETICS	3(2-1)
BIOCHEM-402	MOLECULAR BIOLOGY	3(3-0)
BIO-503	POPULATION BIOLOGY	3(2-1)
BIOCHEM-503	PROTEOMICS	3(2-1)

Course Code	Title	Credit Hours
STAT-503	APPLIED PROBABILITY DISTRIBUTIONS	3(2-1)
BINFO-504	ETHICAL AND LEGAL ISSUES IN BIOINFORMATICS	2(2-0)
CHEM-504	PHARMACEUTICAL CHEMISTRY -IVA (MEDICINAL CHEMISTRY)	4(3-1)
BINFO-506	MACHINE LEARNING FOR BIOINFORMATICS	3(2-1)
BIOTECH-507	TECHNIQUES IN BIOCHEMISTRY AND BIOTECHNOLOGY	3(0-3)
BIOTECH-509	GENOMICS	3(2-1)
CS-513	WEB PROGRAMMING	3(2-1)
CS-510	ARTIFICIAL NEURAL NETWORKS AND DEEP LEARNING	3(2-1)
CS-515	MODELING AND SIMULATION	3(2-1)
BINFO-601	BIOINFORMATICS SOFTWARE DEVELOPMENT	3(2-1)
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)
BINFO-603	MICROARRAY DATA ANALYSIS	3(2-1)
BINFO-605	STRUCTURAL BIOINFORMATICS	3(2-1)
BIOTECH-605	NANOBIOTECHNOLOGY	3(3-0)
BINFO-609	BIOINFORMATICS BIG DATA	3(3-0)
BINFO-610	SPECIAL TOPICS IN BIOINFORMATICS	3(3-0)

## BS MATHEMATICS

### Semester 1

Course Code	Title	Credit Hours
MATH-303	CALCULUS-I	4(4-0)

Course Code	Title	Credit Hours
MATH-304	ELEMENTS OF SET THEORY AND MATHEMATICAL LOGIC	4(4-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
PY-303	MECHANICS	4(4-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 2**

Course Code	Title	Credit Hours
MATH-305	CALCULUS-II	3(3-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
CS-305	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
IS-405/PS-410	FEHM-E-QURAN I/PHILOSOPHY OF ETHICS	1(0-1)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 3**

Course Code	Title	Credit Hours
MATH-401	GROUP THEORY	3(3-0)
MATH-402	CALCULUS-III	3(3-0)
MATH-403	AFFINE AND EUCLIDEAN GEOMETRY	3(3-0)
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
PY-503	CLASSICAL MECHANICS	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 4**

Course Code	Title	Credit Hours
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-405	DISCRETE MATHEMATICS	4(4-0)
PY-504	ELECTRODYNAMICS-I	3(3-0)
STAT-302	INTRODUCTION TO PROBABILITY THEORY	4(4-0)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
IS-406/PS-411	FEHM-E-QURAN II/ SOCIETY AND ETHICS	1(0-1)
<b>Total Credit Hours</b>		<b>20</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-501	TOPOLOGY	3(3-0)
MATH-502	DIFFERENTIAL GEOMETRY AND TENSOR ANALYSIS	3(3-0)
MATH-503	ORDINARY DIFFERENTIAL EQUATIONS	3(3-0)
MATH-504	REAL ANALYSIS	3(3-0)
MATH-505	RING THEORY	3(3-0)
STAT-503	PROBABILITY AND DISTRIBUTION THEORY-I	3(3-0)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-506	PARTIAL DIFFERENTIAL EQUATIONS	3(3-0)
MATH-507	COMPLEX ANALYSIS	3(3-0)
MATH-508	FUNCTIONAL ANALYSIS	3(3-0)
MATH-509	ADVANCED REAL ANALYSIS	3(3-0)
MATH-513	OPERATIONS RESEARCH	3(3-0)
STAT-504	PROBABILITY AND DISTRIBUTION THEORY-II	3(3-0)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-601	NUMERICAL ANALYSIS	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-602	GRAPH THEORY	3(3-0)
MATH-603	MATHEMATICAL AND STATISTICAL COMPUTING	3(0-3)
MATH-604	MATHEMATICAL PHYSICS	3(3-0)
MATH-605	MATHEMATICAL METHODS	3(3-0)
MATH-606	INTEGRAL EQUATIONS	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-620	SEMINAR	1(1-0)
MATH-621	TECHNICAL REPORT/ INTERNSHIP	3(0-3)
MATH-622	CAPSTONE PROJECT	3(0-3)
	<b>Total Credit Hours</b>	<b>07</b>

## **BS STATISTICS**

### **Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
STAT-301	INTRODUCTORY STATISTICS	4(4-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)

Course Code	Title	Credit Hours
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 2**

Course Code	Title	Credit Hours
STAT-302	INTRODUCTION TO PROBABILITY THEORY	4(4-0)
MATH-303	CALCULUS-I	4(4-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
	<b>Total Credit Hours</b>	<b>20</b>

**Semester 3**

Course Code	Title	Credit Hours
STAT-401	BASIC STATISTICAL INFERENCE	4(4-0)
STAT-403	APPLIED STATISTICS	4(4-0)
PY-307	FUNDAMENTAL OF NATURAL SCIENCES	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-305	CALCULUS-II	3(3-0)
MATH-601	NUMERICAL ANALYSIS	3(3-0)
CS-305	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
	<b>Total Credit Hours</b>	<b>20</b>

#### **Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
STAT-404	INTRODUCTION TO REGRESSION AND ANALYSIS OF VARIANCE	4(3-1)
STAT-405	INTRODUCTION TO STATISTICAL SOFTWARE	4(0-4)
MATH-405	DISCRETE MATHEMATICS	3(3-0)
MATH-503	ORDINARY DIFFERENTIAL EQUATIONS	3(3-0)
MATH-513	OPERATIONS RESEARCH	3(3-0)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
	<b>Total Credit Hours</b>	<b>20</b>

#### **Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
STAT-502	STATISTICAL METHODS	3(3-0)
STAT-503	PROBABILITY AND DISTRIBUTION THEORY-I	3(3-0)

Course Code	Title	Credit Hours
STAT-505	SAMPLE SURVEY-I	3(3-0)
STAT-507	DESIGN AND ANALYSIS OF EXPERIMENTS-I	3(3-0)
STAT-512	SURVEY AND RESEARCH METHODOLOGY	3(2-1)
MATH-514	MATRICES FOR STATISTICS	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 6**

Course Code	Title	Credit Hours
STAT-504	PROBABILITY AND DISTRIBUTION THEORY-II	3(3-0)
STAT-506	SAMPLE SURVEY-II	3(3-0)
STAT-508	DESIGN AND ANALYSIS OF EXPERIMENTS-II	3(3-0)
STAT-509	OFFICIAL STATISTICS AND POPULATION STUDIES	3(3-0)
STAT-510	ECONOMETRICS-I	3(3-0)
STAT-511	LINEAR MODELS	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 7**

Course Code	Title	Credit Hours
STAT-602	STATISTICAL QUALITY CONTROL	3(3-0)
STAT-603	BAYESIAN STATISTICS	3(3-0)
STAT-604	ECONOMETRICS-II	3(3-0)
STAT-605	MULTIVARIATE METHODS	4(4-0)

Course Code	Title	Credit Hours
STAT-606	ESTIMATION AND TESTING OF HYPOTHESIS	4(4-0)
CS-506	BIG DATA ANALYTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>20</b>

#### Semester 8

Course Code	Title	Credit Hours
STAT-620	SEMINAR	1(1-0)
STAT-621	TECHNICAL REPORT/ INTERNSHIP	3(0-3)
STAT-622	CAPSTONE PROJECT	3(0-3)
	<b>Total Credit Hours</b>	<b>07</b>

## BS ARTIFICIAL INTELLIGENCE

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)

Course Code	Title	Credit Hours
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	Non-Credit
IS-403	ROHANIAAT	Non-Credit
<b>Total Credit Hours</b>		<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
PY-305	BASIC ELECTRONICS	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-416	DATA MINING	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-505	MACHINE LEARNING	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
SE-507	NATURAL LANGUAGE PROCESSING	3(2-1)
CS-510	ARTIFICIAL NEURAL NETWORKS AND DEEP LEARNING	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-514	COMPUTER VISION	3(2-1)
CS-516	PROGRAMMING FOR AI	3(2-1)
CS-518	REINFORCEMENT LEARNING	3(2-1)
CS-520	SPEECH PROCESSING	3(2-1)
CS-607	SWARM INTELLIGENCE	3(2-1)
CS-609	FUZZY SYSTEMS	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-613	NUMERICAL ANALYSIS	3(2-1)
CS-615	KNOWLEDGE REPRESENTATION AND REASONING	3(2-1)
CS-620	SEMINAR	1(1-0)

Course Code	Title	Credit Hours
STAT-513	ADVANCED STATISTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>79</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>8</b>
	<b>Grand Total</b>	<b>137</b>

**Semester 1**

Course Code	Title	Credit Hours
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PY-305	BASIC ELECTRONICS	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING - I	3(3-0)
	<b>Total</b>	<b>20</b>

**Semester 2**

Course Code	Title	Credit Hours
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401 / SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING -II	3(3-0)
<b>Total</b>		<b>20</b>

**Semester 3**

Course Code	Title	Credit Hours
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
SE-401	SOFTWARE ENGINEERING	3(2-1)
IS-403	ROHANIAH	Non-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
<b>Total</b>		<b>17</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TUL QURAN	Non-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-416	DATA MINING	3(2-1)
	<b>Total</b>	<b>17</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-505	MACHINE LEARNING	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
SE-507	NATURAL LANGUAGE PROCESSING	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
STAT-513	ADVANCED STATISTICS	3(2-1)
	<b>Total</b>	<b>18</b>

**Semester 6**

Course Code	Title	Credit Hours
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
CS-510	ARTIFICIAL NEURAL NETWORKS AND DEEP LEARNING	3(2-1)
CS-514	COMPUTER VISION	3(2-1)
CS-516	PROGRAMMING FOR AI	3(2-1)
CS-518	REINFORCEMENT LEARNING	3(2-1)
CS-520	SPEECH PROCESSING	3(2-1)
	<b>Total</b>	<b>18</b>

**Semester 7**

Course Code	Title	Credit Hours
BINFO-607	SCIENTIFIC WRITING	3(0-3)
CS-607	SWARM INTELLIGENCE	3(2-1)
CS-609	FUZZY SYSTEMS	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-613	NUMERICAL ANALYSIS	3(2-1)
CS-615	KNOWLEDGE REPRESENTATION AND REASONING	3(2-1)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
	<b>Total</b>	<b>20</b>

**Semester 8**

Course Code	Title	Credit Hours
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total</b>	<b>07</b>

**BS DATA SCIENCE**

Course Code	Title	Credit Hours
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)

Course Code	Title	Credit Hours
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	Non-Credit
IS-403	ROHANIAT	Non-Credit
	<b>Total Credit Hours</b>	<b>32</b>
MATH-404	LINEAR ALGEBRA	3(3-0)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
	<b>Total Credit Hours</b>	<b>15</b>
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
SE-401	SOFTWARE ENGINEERING	3(2-1)
CS-407	OPERATING SYSTEMS	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-414	INTRODUCTION TO DATA SCIENCE	3(2-1)
CS-416	DATA MINING	3(2-1)
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)

Course Code	Title	Credit Hours
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-505	MACHINE LEARNING	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-510	ARTIFICIAL NEURAL NETWORKS AND DEEP LEARNING	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
CS-520	SPEECH PROCESSING	3(2-1)
CS-522	DATA WAREHOUSING AND BUSINESS INTELLIGENCE	3(2-1)
CS-524	TEXT MINING	3(2-1)
CS-601	DATA VISUALIZATION	3(2-1)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-617	PLATFORMS AND ARCHITECTURES FOR DATA SCIENCE	3(2-1)
CS-619	BUSINESS PROCESS ANALYSIS	3(2-1)
CS-620	SEMINAR	1(1-0)
STAT-513	ADVANCED STATISTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>79</b>
CS-618	INTERNSHIP	2(0-2)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total Credit Hours</b>	<b>8</b>

**Semester 1**

Course Code	Title	Credit Hours
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
MATH-408	QUANTITATIVE REASONING - I	3(3-0)
<b>Total</b>		<b>20</b>

**Semester 2**

Course Code	Title	Credit Hours
CS-306	DIGITAL LOGIC DESIGN	3(2-1)
CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
ENG-314	EXPOSITORY WRITING	3(3-0)
IS-401 / SSH-306	ISLAMIC STUDIES / ETHICS	2(2-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
STAT-408	QUANTITATIVE REASONING- II	3(3-0)
<b>Total</b>		<b>17</b>

**Semester 3**

Course Code	Title	Credit Hours
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
SE-401	SOFTWARE ENGINEERING	3(2-1)
IS-403	ROHANIAT	Non-Credit
CS-407	OPERATING SYSTEMS	3(2-1)
MATH-407	MULTIVARIABLE CALCULAS	3(3-0)
CS-409	OBJECT ORIENTED PROGRAMMING	3(2-1)
BBA-412	FINANCIAL MANAGEMENT-I	3(3-0)
	<b>Total</b>	<b>17</b>

**Semester 4**

Course Code	Title	Credit Hours
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-402	TARJMA TULQURAN	Non-Credit
STAT-402	STATISTICS AND PROBABILITY	3(2-1)
CS-406	DATA COMMUNICATIONS AND NETWORKS	3(2-1)
CS-408	DATABASE SYSTEMS	3(2-1)
CS-410	DATA STRUCTURES AND ALGORITHMS	3(2-1)
CS-414	INTRODUCTION TO DATA SCIENCE	3(2-1)
CS-416	DATA MINING	3(2-1)
	<b>Total</b>	<b>20</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-503	DESIGN AND ANALYSIS OF ALGORITHM	3(2-1)
CS-505	MACHINE LEARNING	3(2-1)
CS-507	COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE	3(2-1)
IT-507	DATABASE ADMINISTRATION AND MANAGEMENT	3(2-1)
CS-511	ARTIFICIAL INTELLIGENCE	3(2-1)
STAT-513	ADVANCED STATISTICS	3(2-1)
	<b>Total</b>	<b>18</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-502	DATA ENCRYPTION AND SECURITY	3(2-1)
CS-506	BIG DATA ANALYTICS	3(2-1)
CS-510	ARTIFICIAL NEURAL NETWORKS AND DEEP LEARNING	3(2-1)
CS-520	SPEECH PROCESSING	3(2-1)
CS-522	DATA WAREHOUSING AND BUSINESS INTELLIGENCE	3(2-1)
CS-524	TEXT MINING	3(2-1)
	<b>Total</b>	<b>18</b>

**Semester 7**

Course Code	Title	Credit Hours
CS-601	DATA VISUALIZATION	3(2-1)
BINFO-607	SCIENTIFIC WRITING	3(0-3)
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)
CS-617	PLATFORMS AND ARCHITECTURES FOR DATA SCIENCE	3(2-1)
CS-619	BUSINESS PROCESS ANALYSIS	3(2-1)
CS-621	FINAL YEAR PROJECT-I	2(0-2)
	<b>Total</b>	<b>17</b>

**Semester 8**

Course Code	Title	Credit Hours
CS-618	INTERNSHIP	2(0-2)
CS-620	SEMINAR	1(1-0)
CS-622	FINAL YEAR PROJECT-II	4(0-4)
	<b>Total</b>	<b>07</b>

**BS Biostatistics****Semester 1**

Course Code	Title	Credit Hours
BSTAT-301	INTRODUCTION TO BIOSTATISTICS	4(4-0)
MATH-303	CALCULUS-I	4(4-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
	<b>Total Credit Hours</b>	<b>17</b>

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BSTAT-302	CATEGORICAL DATA ANALYSIS	3(3-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
PBG-514	BIOMETRY	2(0-2)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BSTAT-401	VITAL STATISTICS	3(3-0)
EPH-401	BASICS OF EPIDEMIOLOGY	3(3-0)

Course Code	Title	Credit Hours
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
BIOCHEM-515	CLINICAL BIOCHEMISTRY	4(2-2)
IS-402/ SSH-403	TARJMA TUL QURAN/ INTERFAITH HARMONY	No-Credit
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
<b>Total Credit Hours</b>		<b>18</b>

**Semester 4**

Course Code	Title	Credit Hours
BSTAT-402	INTRODUCTION TO BIOMEDICAL RESEARCH	3(3-0)
EPH-501	EPIDEMIOLOGICAL DISEASE MODELLING	3(3-0)
SE-505	MACHINE LEARNING	3(2-1)
MATH-601	NUMERICAL ANALYSIS	3(3-0)
PBG-518	BIOLOGICAL DATA SCIENCE	3(1-2)
BIO-301	ESSENTIAL OF BIOLOGY	3(2-1)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 5**

Course Code	Title	Credit Hours
BSTAT-501	SAMPLING TECHNIQUES AND DESIGN	4(4-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BSTAT-503	DISTRIBUTION THEORY	4(4-0)
BSTAT-505	REGRESSION AND TIME SERIES ANALYSIS	4(4-0)
BSTAT-507	STATISTICS AND MEDICAL DIAGNOSTICS	3(3-0)
BSTAT-509	INTRODUCTION TO STATISTICAL SOFTWARES	4(0-4)
PBG-613	INTRODUCTION TO QUANTITATIVE GENETICS	2(0-2)
	<b>Total Credit Hours</b>	<b>21</b>

### **Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BSTAT-502	BIOSTATISTICAL INFERENCE	4(4-0)
BSTAT-504	DESIGN OF EXPERIMENTS AND BIOASSAY	4(4-0)
BSTAT-506	PROGRAMMING WITH R	4(0-4)
BSTAT-508	SURVIVAL ANALYSIS AND MODELING	3(3-0)
BSTAT-510	STATISTICAL QUALITY CONTROL	3(3-0)
MATH-513	OPERATIONS RESEARCH	3(3-0)
	<b>Total Credit Hours</b>	<b>21</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
BSTAT-601	MODELING CATEGORICAL DATA	3(3-0)
BSTAT-602	BAYESIAN BIOSTATISTICS	3(3-0)
BSTAT-603	ANALYSIS OF REPEATED MEASUREMENTS	3(3-0)

Course Code	Title	Credit Hours
BSTAT-604	APPLIED MULTIVARIATE ANALYSIS	4(4-0)
BSTAT-605	DESIGN AND ANALYSIS OF MEDICAL STUDIES	3(3-0)
DA-606	HEALTH ANALYTICS	3(2-1)
	<b>Total Credit Hours</b>	<b>19</b>

**Semester 8**

Course Code	Title	Credit Hours
BSTAT-620	SEMINAR	1(1-0)
BSTAT-621	TECHNICAL REPORT/ INTERNSHIP	3(0-3)
BSTAT-622	CAPSTONE PROJECT	3(0-3)
	<b>Total Credit Hours</b>	<b>07</b>

**BS DATA ANALYTICS****Semester 1**

Course Code	Title	Credit Hours
DA-301	INTRODUCTION TO DATA ANALYTICS	3(2-1)
MATH-303	CALCULUS-I	4(4-0)
MATH-404	LINEAR ALGEBRA	3(3-0)
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
IS-401/ SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
EDU-306	CIVICS AND COMMUNITY ENGAGEMENT	2(2-0)
	<b>Total Credit Hours</b>	<b>19</b>

### **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
DA-302	INTRODUCTION TO PROBABILITY THEORY	4(4-0)
MATH-305	CALCULUS-II	3(3-0)
MATH-503	ORDINARY DIFFERENTIAL EQUATIONS	3(3-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
CS-305	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES	3(2-1)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
FA-310	INTRODUCTION TO ARTS AND HUMANITIES	2(2-0)
	<b>Total Credit Hours</b>	<b>20</b>

### **Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
DA-401	STATISTICAL INFERENCE	4(4-0)
DA-403	TIME SERIES METHODS	3(2-1)
PY-307	FUNDAMENTAL OF NATURAL SCIENCES	3(2-1)
MATH-601	NUMERICAL ANALYSIS	3(3-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)

Course Code	Title	Credit Hours
BMS-402	ENTREPRENEURSHIP	2(2-0)
IS-403/ SSH-404	ROHANIAT/ MORAL PHILOSOPHY	No-Credit
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 4**

Course Code	Title	Credit Hours
DA-404	DATA ANALYSIS AND CLASSIFICATION METHODS	4(3-1)
DA-406	PROGRAMMING WITH R	3(1-2)
MATH-405	DISCRETE MATHEMATICS	3(3-0)
MATH-513	OPERATIONS RESEARCH	3(3-0)
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
IS-402/ SSH-403	TARJMATUL QURAN/ INTERFAITH HARMONY	No-Credit
	<b>Total Credit Hours</b>	<b>16</b>

**Semester 5**

Course Code	Title	Credit Hours
DA-501	DATA ANALYSIS AND VISUALIZATION	3(2-1)
DA-503/ CS-308	PROGRAMMING FUNDAMENTALS	3(2-1)
DA-505	SAMPLING THEORY FOR DATA ANALYTICS	3(3-0)
DA-507	DESIGN OF EXPERIMENTS FOR DATA ANALYTICS	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
MATH-514	MATRICES FOR STATISTICS	3(3-0)
	<b>Total Credit Hours</b>	<b>15</b>

### **Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
DA-602	PROBLISTICS MODELLING	3(3-0)
DA-604	DATA MINING TECHNIQUES	3(2-1)
DA-606	HEALTH ANALYTICS	3(2-1)
DA-608	ECONOMETRICS TECHNIQUES FOR DATA ANALYTICS	3(3-0)
DA-610	BAYESIAN STATISTICS FOR DATA ANALYTICS	3(3-0)
DA-612	MULTIVARIATE TECHNIQUES FOR DATA ANALYTICS	3(3-0)
	<b>Total Credit Hours</b>	<b>18</b>

### **Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
DA-601	BUSINESS DATA ANALYTICS	3(2-1)
DA-603	DATA ANALYTICS USING ARTIFICIAL INTELLIGENCE	3(2-1)
DA-605	HUMAN ANALYTICS	3(2-1)
DA-609	DATA ANALYTICS AND MACHINE LEARNING ALGORITHMS	3(2-1)
DA-611/ CS-412	VISUAL PROGRAMMING	3(2-1)
	<b>Total Credit Hours</b>	<b>15</b>

**Semester 8**

Course Code	Title	Credit Hours
DA-620	SEMINAR	1(1-0)
DA-621	TECHNICAL REPORT/ INTERNSHIP	2(0-2)
DA-622	CAPSTONE PROJECT	6(0-6)
	<b>Total Credit Hours</b>	<b>09</b>

**Faculty of Arts & Humanities****BACHALOR OF FINE ARTS (BFA)****Semester 1**

Course Code	Title	Credit Hours	Course
FA-301	FUNDAMENTALS OF DRAWING I	3(0-3)	MC
FA-303	INTRODUCTION TO HISTORY OF ART	2(2-0)	MC
FA-305	BASIC DESIGN TECHNIQUES I	3(0-3)	MC
FA-307	CONCEPT OF DRAFTING I	2(0-2)	MC

**GENERAL COURSES**

ENG-313	FUNCTIONAL ENGLISH	3(3-0)	GE
CS-305	APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES(ICT)	3(2-1)	GE
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)	GE
TGM-301	TUTORIAL GROUP MEETINGS FOR SOFT SKILLS	1(1-0)	NCC
	<b>Total</b>	<b>19</b>	

**Semester 2**

Course Code	Title	Credit Hours	Course
FA-302	FUNDAMENTALS OF DRAWING II	3(0-3)	MC
FA-304	INTRODUCTION TO PAINTING	2(0-2)	MC
FA-306	BASIC DESIGN TECHNIQUES II	2(0-2)	MC
FA-308	ART IN PAKISTAN	2(2-0)	MC
<b>General Courses</b>			
ENG-314	Expository Writing	3(3-0)	GE
SSH-303	Ideology and Constitution of Pakistan	2(2-0)	GE
HE-404	Introduction to Art And Design II	2(0-2)	IDC
TGM-302	Tutorial Group Meetings for Soft Skills	1(1-0)	NCC
	<b>Total</b>	<b>16</b>	

**Semester 3**

Course Code	Title	Credit Hours	Course
MATH-408	Quantitative Reasoning-I	3(3-0)	GE
BMS- 402	ENTREPRENEURSHIP	2(2-0)	GE
IS-401/SSH-306	ISLAMIC STUDIES/ETHICS	2(2-0)	GE
IS-402/SSH-403	TARJUMAT-UL-QURAN/INTERFAITH HORMANY	1(1-0)NC	Compulsory
TGM-401	TUTORIAL GROUP MEETINGS FOR SOFT SKILLS	1(1-0)	NCC
<b>MAJOR COURSES BFA (VISUAL ARTS)</b>			

Course Code	Title	Credit Hours	Course
VA-401	DRAWING AND EXPERIMENTAL TECHNIQUES I	2(0-2)	MC
VA-403	PAINTING TECHNIQUES	3(0-3)	MC
VA-405	HISTORY OF WESTERN ART I	3(3-0)	MC
VA-407	MINIATURE PAINTING I	3(1-2)	MC
VA-409	SOUTH ASIAN ART	2(2-0)	MC
	<b>TOTAL</b>	<b>20</b>	
<b>BFA (GRAPHIC DESIGNS)</b>			
GD-401	DRAWING AND EXPERIMENTAL TECHNIQUES I	2(0-2)	MC
GD-403	GRAPHIC DESIGN I	3(0-3)	MC
GD-405	TECHNIQUES OF PRINTING I	3(0-3)	MC
GD-407	ART APPRECIATION	2(2-0)	MC
GD-409	PHOTOGRAPHY	3(0-3)	MC
	<b>Total</b>	<b>20</b>	
<b>BFA (TEXTILE DESIGN)</b>			
TD-401	FUNDAMENTALS OF DESIGN	2(0-2)	MC
TD-403	TEXTILE DESIGN FOUNDATION	3(1-2)	MC
TD-405	CAD I	3(0-3)	MC
TD-407	WEAVING	3(0-3)	MC
TD-409	BASICS OF TEXTILES AND FIBERS	3(3-0)	MC
	<b>Total</b>	<b>20</b>	

**Semester 4**

Course Code	Title	Credit Hours	Course
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)	GE
SOC-311	INTRODUCTION TO SOCIOLOGY	2 (2-0)	GE
EDU-306	COMMUNITY ENGAGEMENT AND CITIZENSHIP	2(2-0)	GE
STAT-408	QUANTITATIVE REASONING-II	3(3-0)	GE
IS-403	Rohaniat/ Moral Philosophy	1(1-0)NC	Compulsory
TGM-402	Tutorial Group Meetings for Soft Skills	1(1-0)	NCC
<b>BFA (Visual Arts)</b>			
VA-402	Drawing and Experimental Techniques II	2(0-2)	MC
VA-404	Sculpture	3(0-3)	MC
VA-406	Calligraphy I	2(1-1)	MC
VA-408	Media Art I	2(0-2)	MC
VA-410	History of Muslim Architecture	3(3-0)	MC
	<b>Total</b>	<b>21</b>	
<b>BFA (Graphic Design)</b>			
GD-402	DRAWING AND EXPERIMENTAL TECHNIQUES II	2(0-2)	MC
GD-404	GRAPHIC DESIGN II	3(0-3)	MC
GD-406	STUDIO PHOTOGRAPHY	2(1-1)	MC
GD-408	TYPOGRAPHY	2(0-2)	MC
GD-410	INTRODUCTION TO ILLUSTRATION	3(0-3)	MC
	<b>TOTAL</b>	<b>21</b>	

Course Code	Title	Credit Hours	Course
<b>BFA (TEXTILE DESIGN)</b>			
TD-402	INTRODUCTION TO TEXTILE DESIGN	2(0-2)	MC
TD-404	INTRODUCTION TO FASHION DESIGN	2(1-1)	MC
TD-406	TEXTILE EMBELLISHMENT TECHNIQUES	3(0-3)	MC
TD-408	CRAFT DOCUMENTATION	3(1-2)	MC
TD-410	TEXTILE INDUSTRY IN PAKISTAN	2(2-0)	MC
	<b>Total</b>	<b>21</b>	

**Semester 5**

Course Code	Title	Credit Hours	Course
AD-503	ART EDUCATION	3(1-2)	IDC
TGM-501	TUTORIAL GROUP MEETINGS FOR SOFT SKILLS	1(1-0)	NCC
<b>BFA (VISUAL ARTS)</b>			
VA-501	ADVANCED DRAWING I	3(0-3)	MC
VA-503	STUDIO PAINTING I	3(0-3)	MC
VA-505	HISTORY OF WESTERN ART II	3(3-0)	MC
VA-507	MINIATURE II	3(1-2)	MC
	<b>TOTAL</b>	<b>15</b>	
<b>BFA (GRAPHIC DESIGNS)</b>			
GD-501	VISUAL COMMUNICATION I	3(0-3)	MC
GD-503	ADVERTISING DESIGN I	3(0-3)	MC
GD-505	TECHNIQUES OF PRINTING II	3(1-2)	MC

Course Code	Title	Credit Hours	Course
GD-507	COMPUTER GRAPHIC I	3(0-3)	MC
	<b>TOTAL</b>	<b>15</b>	
<b>BFA (TEXTILE DESIGN)</b>			
TD-501	EXPERIMENTAL EMBELLISHMENT TECHNIQUES	3(0-3)	MC
TD-503	DESIGN STUDIO	3(1-2)	MC
TD-505	FASHION AND TEXTILE MARKETING I	3(2-1)	MC
TD-507	CAD II	3(1-2)	MC
	<b>Total</b>	<b>15</b>	

### Semester 6

Course Code	Title	Credit Hours	Course
TGM-502	Tutorial Group Meetings for Soft Skills	1(1-0)	NCC
<b>Major Courses BFA (Visual Arts)</b>			
VA-502	Advanced Drawing II	3(0-3)	MC
VA-504	Studio Painting II	3(0-3)	MC
VA-506	Calligraphy II	2(1-1)	MC
VA-508	Media Art II	3(1-2)	MC
VA-510	CONCEPTUAL ART	3(3-0)	MC
VA-512	CERAMICS AND POTTERY	3(1-2)	MC
	<b>TOTAL</b>	<b>17</b>	
<b>BFA (GRAPHIC DESIGNS)</b>			
GD-502	VISUAL COMMUNICATION II	3(0-3)	MC

Course Code	Title	Credit Hours	Course
GD-504	ADVERTISING DESIGN II	3(0-3)	MC
GD-506	MAG ILLUSTRATION	3(1-2)	MC
GD-508	COMPUTER GRAPHIC II	2(1-1)	MC
GD-510	MARKETING	3(1-2)	MC
GD-512	VIDEO PRODUCTION	3(1-2)	MC
	<b>TOTAL</b>	<b>17</b>	

**BFA (TEXTILE DESIGN)**

TD-502	FASHION ILLUSTRATION	3(0-3)	MC
TD-504	TEXTILE SURFACE DEVELOPMENT	3(0-3)	MC
TD-506	FASHION AND TEXTILE MARKETING II	3(2-1)	MC
TD-508	DIGITAL FASHION DRAWING	2(1-1)	MC
TD-510	HISTORY OF TEXTILE DESIGN	3(3-0)	MC
TD-512	TEXTILE PAINTING AND PRINTING TECHNIQUES	3(0-3)	MC
	<b>Total</b>	<b>17</b>	

**Semester 7**

Course Code	Title	Credit Hours	Course
AD-601	ESSENTIALS OF INTERIOR DESIGN	3(1-2)	IDC
TC-601	ART OF DRAPING	3(1-2)	IDC
TGM-601	TUTORIAL GROUP MEETINGS FOR SOFT SKILLS	1(1-0)	NCC
<b>BFA (VISUAL ARTS)</b>			
VA-601	ART, ARCHITECTURE AND URBANISM	3(2-1)	MC

Course Code	Title	Credit Hours	Course
VA-603	PSYCHOANALYSIS OF ART AND AESTHETICS	3(2-1)	MC
VA-605	PERFORMING ART	2(0-2)	MC
VA-607	INSTALLATION ART	2(0-2)	MC
<b>TOTAL</b>		<b>16</b>	
GD-601	ANIMATION	2(0-2)	MC
GD-603	COMMUNICATION DESIGN	3(1-2)	MC
GD-605	History of Graphic Design	3(3-0)	MC
GD-607	Contemporary Design	2(2-0)	MC
<b>Total</b>		<b>16</b>	
<b>BFA (TEXTILE DESIGN)</b>			
TD-601	Textile Processing	2(2-0)	MC
TD-603	Textile Product Design	3(0-3)	MC
TD-605	History of Decorative Textiles	2(2-0)	MC
TD-607	Advanced Textile Design	3(0-3)	MC
<b>Total</b>		<b>16</b>	
<b>Semester 8</b>			
AD-506	TECHNIQUES OF PAINTING	3(0-3)	IDC
<b>BFA (VISUAL ARTS)</b>			
VA-602	DRAWING AND DIGITAL EXPERIMENTS	3(0-3)	MC
VA-604	PRINT MAKING	3(0-3)	MC
VA-610	CAPSTONE PROJECT	3(0-3)	MC

Course Code	Title	Credit Hours	Course
VA-612	INTERNSHIP	3(0-3)	MC
	<b>TOTAL</b>	<b>15</b>	
	<b>GRAND TOTAL</b>	<b>139</b>	
<b>BFA (GRAPHIC DESIGNS)</b>			
GD-602	DRAWING AND DIGITAL EXPERIMENTS	3(0-3)	MC
GD-604	CALLIGRAPHY	3(0-3)	MC
GD-610	CAPSTONE PROJECT	3(0-3)	MC
GD-612	INTERNSHIP	3(0-3)	MC
	<b>TOTAL</b>	<b>15</b>	
<b>BFA (TEXTILE DESIGN)</b>			
TD-602	EXPERIMENTAL TEXTILES	3(0-3)	MC
TD-604	HISTORY OF DESIGN	3(3-0)	MC
TD-610	CAPSTONE PROJECT	3(0-3)	MC
TD-612	INTERNSHIP	3(0-3)	MC
	<b>Total</b>	<b>15</b>	
	<b>Grand Total</b>	<b>139</b>	

**Summary of first-four semester**

Major Courses	=	44
General Education Courses	=	30
Inter disciplinary Courses	=	02
<b>Total</b>	=	<b>76</b>

**After four semesters**

Major Courses	=	45
Internship & Capstone Project	=	06
Inter disciplinary Courses	=	12
<b>Degree total</b>	=	<b>139</b>

**BS ENGLISH****Semester 1**

Course Code	Title	Credit Hours
ENG-313	FUNCTIONAL ENGLISH	3(3-0)
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)
CS-301	COMPUTER SCIENCE AND INFORMATION TECHNOLOGY	2(0-2)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
ENG-301	PROSE	3(3-0)
ENG-302	INTRODUCTION TO LINGUISTICS	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 2**

Course Code	Title	Credit Hours
IS401/SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
DHL-408	GEOECONOMIC POLITICS	2(2-0)
DHL-407	INTERNATIONAL RELATIONS AND GLOBALIZATION	3(3-0)
ENG-303	HISTORY OF ENGLISH LITERATURE	3(3-0)
ENG-304	SYNTAX AND MORPHOLOGY	3(3-0)
IS-403	ROHANIAT	NON-CREDIT

Course Code	Title	Credit Hours
IS-405/PS-410	FEHM-E-QURAN-I/ PHILOSOPHY OF ETHICS	1(0-1)
	<b>Total Credit Hours</b>	<b>17</b>

**Semester 3**

Course Code	Title	Credit Hours
CS-305	APPLICATIONS OF INFORMATION & COMMUNICATION TECHNOLOGIES	3(2-1)
BMS-402	ENTERPRENEURSHIP	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
SOC-306	GENDER STUDIES	3(3-0)
ENG-401	ENGLISH PHONETICS AND PHONOLOGY	3(3-0)
ENG-402	CLASSICS IN DRAMA	3(3-0)
IS-406/ PS-411	Fehm-e-Quran- II/ Society and Ethics	1(0-1)
	<b>Total Credit Hours</b>	<b>18</b>

**Semester 4**

Course Code	Title	Credit Hours
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
EDU-306	CIVIC AND COMMUNITY ENGAGEMENT	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
ENG-403	CLASSICS IN POETRY (14th to 17th Century)	3(3-0)
ENG-404	SEMANTICS AND PRAGMATICS	3(3-0)

Course Code	Title	Credit Hours
IS-402/SSH-403	Tarjmatul Quran/Interfaith Harmony	NON-CREDIT
	<b>Total Credit Hours</b>	<b>16</b>

### Semester 5

Course Code	Title	Credit Hours
ENG-501	LITERARY CRITICISM AND THEORY	3(3-0)
ENG-502	POSTCOLONIAL STUDIES	3(3-0)
ENG-503	SOCIO AND PSYCHO LINGUISTICS	3(3-0)
ENG-504	INTRODUCTION TO STYLISTICS	3(3-0)
ENG-505	WORLD ENGLISHES	3(3-0)
	<b>Total Credit Hours</b>	<b>15</b>

### Semester 6

Course Code	Title	Credit Hours
ENG-506	VICTORIAN NOVEL	3(3-0)
ENG-507	PHILOSOPHY AND LITERATURE	3(3-0)
ENG-508	MODERN AND POSTMODERN DRAMA	3(3-0)
ENG-509	CORPUS LINGUISTICS	3(3-0)
ENG-510	DISCOURSE STUDIES	3(3-0)
	<b>Total Credit Hours</b>	<b>15</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-601	ROMANTIC, VICTORIAN, AND MODERN POETRY	3(3-0)
ENG-602	RESEARCH METHODOLOGY	3(3-0)
ENG-603	AMERICAN LITERATURE	3(3-0)
ENG-604	CRITICAL LITERARY THEORY	3(3-0)
ENG-605	ENGLISH LANGUAGE TEACHING	3(3-0)
<b>Total Credit Hours</b>		<b>15</b>

**Semester 8**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-606	LANGUAGE SYLLABUS DESIGN AND EVALUATION	3(3-0)
ENG-607	PAKISTANI LITERATURE IN ENGLISH AND TRANSLATION	3(3-0)
ENG-620	SEMINAR	1(1-0)
ENG-621	INTERNSHIP	3(0-3)
ENG-622	CAPSTONE PROJECT	3(0-3)
<b>Total Credit Hours</b>		<b>13</b>

**BS PAKISTAN STUDIES****Semester 1**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
ENG-313	FUNCTIONAL ENGLISH	3(3-0)

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
SSH-303	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2(2-0)
FA-310	INTRODUCTION TO ART AND HUMANITIES	2(2-0)
CS-301	COMPUTER SCIENCE AND INFORMATION TECHNOLOGY	2(2-0)
DHL-408	GEO ECONOMIC POLITICS	2(2-0)
PST-302	PREHISTORIC CIVILIZATIONS	3(3-0)
DHL-407	INTERNATIONAL RELATIONS AND GLOBALIZATION	3(3-0)
<b>Total Credit Hours</b>		<b>17</b>

## **Semester 2**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
IS401/SSH-306	ISLAMIC STUDIES/ ETHICS	2(2-0)
PY-307	FUNDAMENTALS OF NATURAL SCIENCES	3(2-1)
PST-305	MUSLIM RULE IN SUBCONTINENT I	2(2-0)
SOC-311	INTRODUCTION TO SOCIOLOGY	2(2-0)
PST-307	LOCAL GOVERNMENT IN PAKISTAN	3(2-1)
PST-309	RESEARCH METHODOLOGY	3(3-0)
IS-403/SSH-404	ROHANIAH /MORAL PHILOSOPHY	NON-CREDIT
<b>Total Credit Hours</b>		<b>15</b>

**Semester 3**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
CS-305	APPLICATIONS OF INFORMATION & COMMUNICATION TECHNOLOGIES	3(2-1)
BMS-402	ENTREPRENEURSHIP	2(2-0)
MATH-408	QUANTITATIVE REASONING-I	3(3-0)
SOC-306	GENDER STUDIES	3(3-0)
PST-401	JINNAH: A CHARISMATIC LEADER	3(3-0)
PST-402	POLITICAL PARTIES OF PAKISTAN	3(2-1)
<b>Total Credit Hours</b>		<b>17</b>

**Semester 4**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
STAT-408	QUANTITATIVE REASONING-II	3(3-0)
EDU-306	CIVIC AND COMMUNITY ENGAGEMENT	2(2-0)
ENG-314	EXPOSITORY WRITING	3(3-0)
ECON-305	INTRODUCTION TO ECONOMICS	2(2-0)
PST-403	PAKISTAN AND THE MUSLIM WORLD	3(3-0)
PST-404	CONSTITUTIONAL AND POLITICAL DEVELOPMENTS IN PAKISTAN PHASE- I	3(3-0)
IS-402/SSH-403	TARJMA TUL QURAN/INTERFAITH HARMONY	NON-CREDIT
<b>Total Credit Hours</b>		<b>16</b>

**Semester 5**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PST-501	CONSTITUTIONAL AND POLITICAL DEVELOPMENTS IN PAKISTAN PHASE- II	3(3-0)
PST -502	PAKISTANI SOCIETY AND CULTURE	3(3-0)
PST -503	PARLIAMENTARY STUDIE	3(2-1)
PST -504	INTRODUCTION TO POLITICAL SCIENCE	3(3-0)
PST -505	GEOGRAPHY OF PAKISTAN	3(3-0)
PST-506	GENDER STUDIES AND WOMEN EMPOWERMENT IN PAKISTAN	3(3-0)
<b>Total Credit Hours</b>		<b>18</b>

**Semester 6**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PST -507	CIVIL AND MILITARY BUREAUCRACY OF PAKISTAN	3(3-0)
PST -508	PROVINCIAL AND REGIONAL LANGUAGES OF PAKISTAN	3(3-0)
PST -509	MUSLIM RULE IN SUBCONTINENT II	3(3-0)
PST -510	DEFENCE AND DIPLOMATIC STUDIES	3(2-1)
PST -601	WORLD ORGANIZATIONS	3(3-0)
<b>Total Credit Hours</b>		<b>15</b>

**Semester 7**

<b>Course Code</b>	<b>Title</b>	<b>Credit Hours</b>
PST -602	PUBLIC POLICY ANALYSIS	3(2-1)
PST -603	NUCLEAR PROLIFERATION AND NON-PROLIFERATION	3(3-0)

Course Code	Title	Credit Hours
PST -604	DEVELOPMENT OF MASS MEDIA IN PAKISTAN	3(2-1)
PST -605	MUSLIMS STRUGGLE FOR PAKISTAN II	3(3-0)
PST -606	FOREIGN POLICY OF PAKISTAN	3(2-1)
	<b>Total Credit Hours</b>	<b>15</b>

**Semester 8**

Course Code	Title	Credit Hours
PST -607	HISTORIOGRAPHY	3(3-0)
PST -608	REFORMIST MOVEMENTS IN SUBCONTINENT	3(3-0)
PST -620	SEMINAR	1(1-0)
PST -621	INTERNSHIP	3(0-3)
PST -622	CAPSTONE PROJECT	3(0-3)
	<b>Total Credit Hours</b>	<b>13</b>



## GENERAL INSTRUCTIONS FOR ADMISSION

The University conducts entry test for admission to all undergraduate degree programs to address issues of variation in quality of results and late declaration of results by different boards dealing with intermediate and secondary education. The admissions are carried out prior to declaration of final Intermediate results on the basis of marks obtained in Matric, Intermediate(Part-I) as well as Entry Test. The University took these steps with the hope that it would attract highly meritorious students from all over Punjab and observe its semester schedule in its true sense.

### **SUBMISSION OF APPLICATIONS:**

The candidates after qualifying Intermediate (Part-I) or an examination acceptable as equivalent thereto from a recognized institution in the Punjab and entry test conducted by the University. They are also required to submit online application by entering into system through password used at the time of registration of Entry Test. The detail of Entry Test matching streams required for each undergraduate degree programs at Main and Constituent Colleges Toba Tek Singh, Burewala (Vehari) and Depalpur (Okara), are given below. The merit of candidates will be prepared according to marks secured in Matric, Intermediate(Part-I)/equivalent and entry test with the ration of 30:30:40 respectively.

### **HAFIZ-E-QURAN TEST:**

In case of certificate/degree programs (except in-service teachers of Associate degree in Education and B.Ed.), the candidates desirous to claim 20 marks being Hafiz-e-Quran, would have to appear for test/interview irrespective of the fact that he/she has Hafiz-e-Quran certificate. For the purpose while submitting online application on open merit, they would be required to submit prescribed registration application as per specimen available in the Office of Dean/ Director/Principal of Constituent College concerned upto the last date advertised in the National Press. On the next day of expiry of last date, such applications complete in all respects will be forwarded by the Dean/Director concerned to the Director Students' Affairs under covering letter to proceed further into the matter.

On receipt of applications, the test/interview of the candidates at main campus will be conducted by the Director Students' Affairs in his office, as per schedule published in the National Press. The test/interview in the case of candidates of Constituent College will be arranged by the Principal concerned at the respective Constituent Colleges. It is made clear that no separate test/interview will be conducted for a candidate who could not appear on the scheduled date and time under any circumstances. After conducting test/interview, the list of qualified/failed/absent candidates will be communicated under confidential cover to the Dean/Director concerned by the Directorate of Students' Affairs. The concerned admission authority will carefully check/ensure that 20 marks have been added in the marks of last examination while preparing merit, only in the case of candidates who have declared as pass/qualified the test/

interview as indicated against their names in the list received from Director Students' Affairs office. The candidates who fail to qualify/ pass the test/interview and names not included in the requisite list, will be placed in the merit list according to their marks secured in last examination without 20 marks, irrespective of the fact that they have attached any type of Hafiz-e-Quran certificate or not.

**THREE YEARS DIPLOMA HOLDER CANDIDATES:**

After having information from University website/concerned office, the candidates possessing Three Years Diploma of Associate Engineer(DAE) in the relevant technology can apply for admission to all the Engineering programs only against their reserved seats. They shall not be eligible to apply for admission under any other category in any Engineering programs. Their marks will be converted to a basic figure of 1100 (total marks for Intermediate) and Hafiz-e-Quran marks, if any will be added later after conversion (provided they pass/ qualify Hafiz-e-Quran test/interview).

**AGE LIMIT:**

Upper age limit is 23 years for all undergraduate degree programs on 1st September of the year of admission. There is no age limit for admission to Associate and B.Ed. degree programs. However, the upper age limit condition where applicable can be relaxed on the recommendations of respective admission authority by the Vice Chancellor, if selected provisionally. Such applicants are required to submit a request addressed to the Vice Chancellor on plain paper alongwith application form. However, the competent authority may refuse to consider the request for relaxation.

**FOR RURAL CANDIDATES:**

The district of a candidate will be determined from the name and place of School indicated in the Matric Certificate. If the school is situated within the premises of a District Headquarter, the candidate will be considered as Urban. The rest of the candidates will be considered as Rural for the degree programs where separate seats have been earmarked for rural and urban candidates.

**INSTRUCTIONS FOR RESERVED SEATS:**

The candidates applying for reserved seats should attach attested copies of the certificates mentioned against each in addition to other documents as detailed below:-

<b>SR</b>	<b>Admission Category</b>	<b>Required Evidence</b>
1	Cholistani Candidate	One attested copy of birth certificate issued by respective Union Council located in Cholistan area verified by the Managing Director, Cholistan Development Authority, Bahawalpur.
2	Children of:	
	a. University Teachers	Two recent attested copies of certificate issued by the Personal Section in 2019 indicating name of applicant and his father or valid guardian (if father died).
	b. University other Employees	Two recent attested copies of certificate issued by the Establishment Section in 2019 indicating name of applicant and his father or valid guardian (if father died).
	c. Overseas Pakistanis	Three attested copies of Membership/Registration card issued by Overseas Pakistanis Foundation (OPF) Ministry of Labor, Manpower & Overseas Pakistanis, Overseas Pakistanis Division, Government of Pakistan, in the name of applicant's father/valid guardian (if father died).
	d. Defence Forces Personnel	Nomination from Headquarter of respective Force against reserved seats as distributed by the Joint Staff Headquarters, Rawalpindi
	e. Agri./Veterinary/ Animal Husbandry Graduates	Two attested copies of degree issued by this University in the name of applicant's father/valid guardian (if father died).
3	Special Persons	Two attested copies of prescribed Disability Certificate issued by the respective District Assessment Board.
4	Laboratory Schools & College System	Intermediate Certificate & Character certificate issued by The Principal / Headmaster / Headmistress of Laboratory School & College System



## ON-LINE SUBMISSION OF APPLICATION FORM:

1. The detail of degree programs being offered during the academic session, 2019-2020, minimum eligibility criteria of each is given in a statement added separately. However, the University reserves the rights to revise any of the eligibility criteria, or condition at any stage without assigning any reason.
  - 1.1. After qualifying entry test(s), you are also required to submit on-line application form according to the schedule notified in the National Press and on University website. If you fail to submit the said form, you will not be considered for admission in any case. While submitting said application form select the degree program, category of admission carefully according to your entry test stream. You can select more than one degree program, category and Campus according to your qualification and choice.
  - 1.2. To apply for admission after qualifying Entry Test(s), just use your username and password.
  - 1.3. Fill up fee voucher and submit in the Bank.
  - 1.4. If you want to apply on evening program, separate fee voucher for the same will be required for submission of prescribed fee in the Bank separately.
  - 1.5. The fee voucher of candidate applying for these categories will only be considered, if he has downloaded voucher of open merit being compulsory requirement. Similarly, if separate fee for evening program has not been deposited, you are in-eligible to apply against said category.
2. Your merit will be prepared on the basis of data/information provided by you through on-line system. Therefore, you will personally be responsible for provision of any wrong/incorrect and bogus information/data. It is clarified that passing marks in entry test to apply for admission to DVM and Engineering programs of the Faculty of Agri. Engineering & Technology are 50%, whereas in other degree programs, the candidate having 50% or below marks can apply. The ratio for those who passed equivalent of Matric, Intermediate (Part-I), will be 60:40. However, admission to all degree programs will be strictly on merit basis which will be determined on the basis of marks obtained in Matric, Intermediate(Part-I) or equivalent examination and Entry Test with the ratio of 30:30:40 respectively, according to following given example:-

	Marks Obtained	Multiplied by prescribed %	Divided by Total Marks	Equal to
Matric	750	x 30	1100	20.454
Intermediate(Part-I)	350	x 30	550	19.090
Entry Test	60	x 40	100	24.000
<b>Weighted percentage</b>				<b>63.544</b>

- 2.1 Your district/residential category (rural/urban) aspect (where required), will be based on Matric school address mentioned on your Matric certificate.
- 2.2 The list of provisionally admitted candidates will be available on University website. SMS message will also be sent to each selected candidate on the given cell number. Afterwards, the candidate needs to submit semester dues on or before due date otherwise, admission will be treated as cancelled without any prior notice/intimation and candidate next on merit, will be considered for admission.
3. Your admission will be purely on provisional basis, which will be subject to declaration of combined Intermediate result. In case you secure marks within the minimum eligibility criteria of selected degree (excluding 20 marks of Hafiz-e-Quran), you will continue studies. In case, marks are less than the minimum eligibility criteria or you fail to pass all the subjects of Intermediate, the admission shall be considered as cancelled without any prior intimation/notice. In this eventuality, the dues deposited will be refunded on submission of proper application to the Treasurer's office as per percentage and time limit given below:-

% age of dues deposited	Time limit
Full (100%) refund of total dues/hostel dues deposited excluding admission fee	Up to 7th day of convene of classes or depositing of dues whichever is later(*)
Half (50%) refund of total dues/hostel dues deposited excluding admission fee	From 8th - 15th day of convene of classes or depositing of dues whichever is later(*)
No refund	From 16th day of convene of classes or depositing of dues whichever is later(*)

\* in case where dues were deposited after commencement of classes, the next day from depositing dues will be considered as date of convene of classes.

4. In case any:-

- (i) candidate quits admission at his/her own under any circumstances, the deposited dues shall not be refunded.
- (ii) information/data/document provided/indicated in on-line form or submitted thereafter in the University is found as BOGUS/TAMPERED/ FABRICATED etc. at any stage of studies, the admission shall be cancelled retrospectively without assigning any reason and the deposited fee shall not be refunded.

Certified that I have read the above instructions and I will abide by all the given Rules/Regulations or those framed hereinafter. Therefore, I may be allowed to submit on-line entry test registration form and thereafter admission application form.

**DISPLAY OF MERIT LIST:**

The candidates are required to check their admission from the lists which are displayed by the concerned Deans/Director/Principal on the Notice Boards of the respective Faculty / Institute / College / Constituent College as well as on University's website <http://www.uaf.edu.pk>. If a selected candidate fails to deposit University dues within the stipulated period indicated in the admission notification, his admission shall stand cancelled automatically without any prior notice. The admission of next candidate on waiting list will be notified who will also not be informed about his selection but he will have to check his name from the admission lists displayed on the respective Notice Board. However, the admission authority has a right to refuse admission to any candidate without assigning any reason.

**TERMS & CONDITIONS AND PROCEDURE TO APPLY FOR ADMISSION UNDER 'EVENING PROGRAM' CATEGORY:**

- (a) All the male/female citizens of Pakistan irrespective of their domicile can apply for admission against the seats available under Evening Program.
- (b) It will be obligatory for the Punjab domiciled candidates who desire to seek admission in Evening Program that while exercising option for admission in Evening Program, also opt for admission under Open Merit/any other category, in the same degree program.
- (c) The candidates are required to deposit prescribed application fee on separate voucher of 'Evening Program' category in addition to open merit. In case a candidate does not deposit separate fee for this category, will not be considered for admission against the same.
- (d) The entry fee in addition to normal dues would be as under, which have to be deposited in installments after provisional admission under this category according to schedule given in the notification, through on-line fee voucher (including normal regular dues) to

be generated by the applicant from University website, payable at any designated Bank throughout the country. After admission, the remaining installments will be added in normal regular fee voucher of each semester. However, in case any candidate desirous to pay prescribed entry fee amount into two, he/she is also be allowed to do so.

- (e) If the applicants are more than the number of allocated seats, the admission will be made on their inter see (among themselves) merit to be determined on the basis of aggregate percentage. The merit of female candidates (where separate seats have been allocated for them), will also be made on their inter see merit. However, their merit will be prepared alongwith male candidates in the degree programs where common seats have been allocated
- (f) It should be noted that the notification for admission under Evening Program category be issued strictly after finalization of admission on all categories of admission. If the candidate (fresh entrant), once admitted in a degree program as Evening Program student, enrolls himself/herself by submitting UG-I form, deposits normal dues and subsequently leaves the University under any circumstances/change admission category, the amount of entry fee and other dues except "admission fee" already deposited by him/her, shall be refunded as per percentage and time limit given below. However, after depositing dues/completing enrolment formalities and commencement of classes, all the dues including instalment of entry fee will be refunded, if the University declares any candidate as 'ineligible' for admission, at any stage:-

%age of dues deposited	Time Limit
Full (100%) Refund of Entry fee and total dues/ hostel dues deposited excluding admission fee	Up to 7th day of convene of classes or depositing of dues whichever is later (*)
Half (50%) Refund of Entry fee and total dues/hostel dues deposited excluding admission fee	From 8th – 15th day of convene of classes or depositing of dues whichever is later (*)
No (0%) Refund	From 16th day of convene of classes or depositing of dues whichever is later (*)

(\*) In the case where dues were deposited after commencement of classes, the next day from depositing dues will be considered as date of convene of classes.

- (g) A candidate desirous to change his degree after notification of his admission/ depositing dues/completing enrolment formalities under 'Evening Program' category, may opt for another degree of his choice in the same category TWICE. This permission will be granted on the recommendations of both the admission authorities/ change of UG-I form (if submitted) subject to the condition that the candidate has already opted for this category and falls on merit in the degree of his choice. The process for change of

degree once/twice, if any, should be completed within two weeks from commencement of regular classes.

Under these circumstances, less or excess entry fee/dues will be paid/adjusted by the candidate/University, as the case may be.

- (h) No student of day classes will be allowed to shift to Evening Program in any case and vice versa. However, Evening Program student can be shifted to morning after due approval of the Vice Chancellor on the recommendations of the Dean/Director/Head of Constituent College concerned under peculiar circumstances to be recorded in writing. However, the student will have to pay installment of entry fee as usual.
- (i) If a candidate has applied on open merit etc. but could not be admitted due to low marks, he/she can opt for seeking admission as Evening Program candidate. Such candidate will submit an application addressed to the Vice Chancellor to the Office of the respective Dean/Director/Principal. The said office after ensuring merit of the applicant, availability of seat will ask the applicant to deposit application fee, 1st installment of Evening Program entry fee alongwith regular dues of first semester through on-line fee voucher. Such application complete in all respect with specific recommendations shall be submitted to the Vice Chancellor for approval through the Registrar office. A certificate must be accompanied with the case from the Dean/Director/Principal concerned that no candidate on waiting list of Evening Program category having marks above than the applicant has previously been ignored. Such applications will be recommended after completion of admission against all the categories. However, after exhausting allocated seats under 'Evening Program' category, the University reserves the right to allow admission under 'Evening Program' category to left over candidates of 'open merit' having higher marks than the already admitted candidates under this category, by ignoring candidates on waiting list. The admission of such candidates will be notified by adjustment of un-utilized seats from other categories or allocating additional seats, if required, and following the prescribed procedure as specified above.
- (j) In case, seats reserved under 'Evening Program' category remain vacant in a degree program, these may be transferred to any other degree under the same category, if required, being un-utilized with the permission of the Vice Chancellor on the recommendations of the admission authorities concerned.
- (k) The classes under the category will start functioning in the morning/evening time as the concerned Faculty/Institute/Constituent College, may think fit, and students will enjoy all the auxiliary facilities such as medical, accommodation(if available) etc. just like other students.





# **PROSPECTUS**

## **UNDERGRADUATE PROGRAMS**

**2025-26**



University Website: <https://www.uaf.edu.pk/>

Direct Link: [http://uaf.edu.pk/admissions/un/adm\\_overview.html](http://uaf.edu.pk/admissions/un/adm_overview.html)

Further Queries: UAN 111-000-823

Exchange: 041-9200161-70 / Ext. 5050, 5055, 3315

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