



# **GRAND ASIAN UNIVERSITY, SIALKOT**

A Chartered University

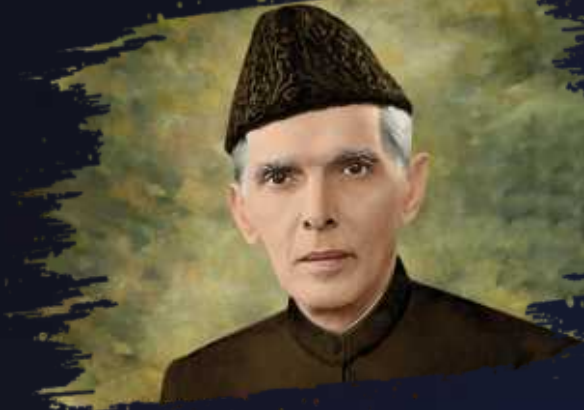
*I am The Future*











EDUCATION IS A MATTER OF LIFE AND DEATH TO OUR NATION. THE WORLD IS MOVING SO FAST THAT IF YOU DO NOT EDUCATE YOURSELF YOU WILL BE NOT ONLY COMPLETELY LEFT BEHIND BUT WILL BE FINISHED UP.

**QUAID-E-AZAM**







BE AWARE OF YOUR WORTH, USE ALL OF YOUR POWER  
TO ACHIEVE IT. CREATE AN OCEAN FROM A  
DEWDROP. DO NOT BEG FOR LIGHT FROM THE MOON,  
OBTAIN IT FROM THE SPARK WITHIN YOU. ALLAMA  
**MUHAMMAD IQBAL**





# CHAIRMAN'S MESSAGE





## MESSAGE FROM THE CHAIRMAN



It is with immense pride and great pleasure that I welcome you to the Grand Asian University Sialkot (GAUS). The remarkable journey of the Islam Group, rooted in a steadfast commitment to quality education, has led to the creation of *Islam Education City*—a hub of intellectual excellence. Over the years, a number of prestigious institutions have been established, including *Islam Medical & Dental College*, *Islam College of Pharmacy*, *Grand College of Pharmacy*, *Islam College of Physiotherapy*, *Islam College of Nursing*, *Islam Law College*, and *Islam College of Management & Sciences*. These institutions have proved the beacon to lay down the foundation of academic distinction, shaping professionals who contribute significantly to society.

This beacon then nurtured our vision to establish the *Grand Asian University Sialkot (GAUS)*, a great land mark to achieve excellence to render higher education and serve humanity. As a premier institution, GAUS is not merely

an academic institution, but a vibrant ecosystem where knowledge meets innovation, and tradition is harmonized with futuristic thinking. Our mission is to cultivate not just academic achievers, but global leaders who possess the critical thinking, creativity, and ethical grounding required to navigate an ever-evolving world.

At GAUS, we believe that education is not just about acquiring knowledge but about developing the whole individual. Our curricula have been designed to foster intellectual curiosity, leadership, and innovation, ensuring that students are equipped with the skills to excel in a dynamic global landscape. From cutting-edge research opportunities to transformative learning experiences, we provide an environment that encourages students to challenge the status quo, think beyond conventional boundaries, and aspire to greatness.

By holding an unwavering ambition, we at GAUS empower our students to stand shoulder to shoulder with the brightest minds in the world. Our graduates will not only be able to hold their presence in the international arena but will also set new standards of excellence.

With state-of-the-art facilities, an inspiring faculty, and a forward-thinking approach, GAUS stands at the forefront of higher education in the region. We are dedicated to provide a transformative educational experience that not only fosters intellectual excellence but also shapes character and purpose.

I invite you to embark on this extraordinary journey with us. At GAUS, we are committed to help you shape your future with boldness, vision and determination. Together, let us craft a future where your success knows no bounds. Your aspirations, combined with our expertise, will create a legacy of excellence.

### **Muhammad Islam**

Chairman Board of Governors  
Grand Asian University, Sialkot



# **VICE CHANCELLOR'S MESSAGE**





## MESSAGE FROM THE VICE CHANCELLOR

It is with immense pleasure that I extend my warmest welcome to you all at Grand Asian University Sialkot (GAUS). Our university stands as a beacon of higher education, dedicated to fostering an environment where learning, discovery, and innovation converge to shape the leaders of tomorrow.

At GAUS, we believe that a university is not just a place to earn a degree, but a dynamic platform for personal and professional growth. Our commitment is to provide an enriching academic experience that prepares our students to meet the challenges of an increasingly interconnected and complex world. With a strong emphasis on interdisciplinary learning, global perspectives, and research-driven innovation, GAUS empowers students to develop not only their knowledge but also the critical skills necessary to succeed in today's rapidly evolving job markets.



We are deeply proud of our diverse and distinguished faculty who are passionate about nurturing talent and guiding students to realize their full potential. Their dedication to research and academic excellence ensures that GAUS remains at the cutting edge of education in Pakistan and beyond. Our modern facilities, vibrant campus life, and wide array of programs create a stimulating environment where ideas flourish and futures are shaped.

As Vice Chancellor, I am committed to furthering our vision of becoming a globally recognized institution that not only will impart knowledge but also cultivate integrity, leadership, and social responsibility. Together, we will continue to pursue academic excellence and innovation, ensuring that GAUS remains a trailblazer in higher education.

I look forward to seeing each of you achieve your dreams and contribute positively to society. Let us embark on this remarkable journey together.

### **Prof. Dr. Syed Mujahid Kamran**

Vice Chancellor, Grand Asian University, Sialkot  
Sitara-e-Imtiaz  
Pride of Performance  
Abdus Salam Prize



## MESSAGE FROM PRO VICE CHANCELOR



Welcome to Grand Asian University, Sialkot! It is with great pride and enthusiasm that I extend my warm greetings to all students of our esteemed institution. As we continue to build on the legacy of excellence, I am honored to be part of an academic community that is dedicated to shaping the leaders of tomorrow. At Grand Asian University, our mission is to provide an inclusive, stimulating, and dynamic learning environment that nurtures creativity, critical thinking, and innovation. We aim to equip our students with not only academic knowledge but also the practical skills needed to succeed in an ever-changing global landscape. Our commitment to fostering holistic development empowers students to excel not only in their chosen fields but also as responsible citizens of the world. Our highly qualified faculty, modern infrastructure, and diverse academic programs are designed to meet the evolving needs of the job market. We are committed to continuous research, innovation, and knowledge sharing, ensuring that our students are prepared to make a meaningful impact in their careers and communities. As an institution, we strive to create an environment where academic excellence, ethical values, and social responsibility come together. The success of our students is our highest priority, and we are deeply committed to supporting each individual in achieving their goals. Thank you for being a part of the Grand Asian University family. I am confident that together, we will continue to inspire, innovate, and lead with integrity. I look forward to witnessing your achievements and success.

**Dr. Jehanzaib Islam**  
Pro Vice Chancellor  
Grand Asian University, Sialkot



## ACCREDITATIONS



**HEC**  
Higher Education Commission



**Pakistan  
Engineering  
Council**



**National  
Technology Council**



**Pakistan  
Pharmacy  
Council**



**Pakistan  
Law  
Council**

## INTERNATIONAL COLLABORATOR



**AZERBAIJAN  
UNIVERSITY**

## MOUs









## TABLE OF CONTENTS

About the University		
1.	History and Overview	01
2.	Vision, Mission, Core Values	02
3.	Motto & Core Values	03
4.	University Governance	04
Academics		
5.	Faculty of Sciences	07
6.	• Department of Biosciences	09
7.	• Department of Food, Nutrition & Agricultural Sciences	22
8.	• Department of Physics	30
9.	• Department of Chemistry	35
10.	• Department of Mathematics	43
11.	• Department of Social Sciences	51
12.	• Department of Computer Sciences	58
13.	• Department of Business & Economics	73
14.	Faculty of Engineering and Technology	86
15.	• Department of Mechanical Engineering and Technology	88
16.	• Department of Electrical Engineering and Technology	92
17.	• Department of Civil Engineering and Technology	98
18.	Faculty of Pharmacy	102
29.	Faculty of Law	107
University Administration		
20.	Registrar Office	113
21.	Controller Examination Office	114
22.	Treasurer Office	115
23.	ORIC Office of Research, Innovation & Commercialization	116
24.	Directorate of Academics	117
25.	QEC Quality Enhancement Cell	118
26.	Directorate of Student Affairs	119
27.	Directorate of Human Resource	120
28.	IT Services Team	121
29.	IT Development Team	122
30.	Directorate of Admissions	123



## TABLE OF CONTENTS

Admission Information		
31.	Admission Policy	125
32.	Entry Requirements	128
Campus Facilities		
33.	Free Transport	132
34.	Seminars, Workshops, and Conferences	133
35.	Student Hostels (Boys and Girls) Educational and Recreational Tours	134
36.	Computer, Engineering and Science Labs	135
37.	Library	138
Campus Life		
38.	Cafeteria and Second Cup Cafe	137
39.	Student Societies	138
40.	Events and Extracurricular Activities	139
Memorandum Of Understandings		
41.	International Collaboration	146
42.	National Organizations	147
Career Services		
43.	Internship and Placement Services Student Counseling and Career Guidance	150
Student Support Services		
44.	Business Incubation Center Campus Market Medical Services	152
Code of Conduct		
45.	Code of Conduct	154
46.	Anti-Ragging Policy Attendance Policy	155
47.	Harassment Policy	156
48.	Contact Us!	158
49.	Appendices	159





GAUSS

KNOWLEDGE

HONOR

EXCELLENCE

GRAND ASIAN UNIVERSITY SIALKOT



## ABOUT THE UNIVERSITY

### History and Overview

The Islam Group has a **distinguished heritage in education**, with over a decade of dedicated service to **nurturing young minds and advancing academic standards**. Through this unwavering commitment, the group has established itself as a pioneer in the education sector. In 2021, this commitment reached a new pinnacle with the launch of Grand Asian University Sialkot (GAUS). The university, a fully chartered institution under the Act of 2021 by the Government of Punjab, Lahore, is duly **recognized by the Higher Education Commission (HEC)** Islamabad. GAUS stands as a beacon of modern education, rooted in tradition yet embracing the innovations necessary for future success, and has quickly become a leading institution in the Sialkot region.

Strategically located on Pasrur Road, Sialkot, GAUS spans an impressive 10-acre campus with a developed **area of 324,517 sq. ft.** The campus is a testament to modern architecture and cutting-edge infrastructure, designed to foster a vibrant academic environment. Students benefit from access to advanced laboratories equipped with the latest technology, a modern digital library that offers vast academic resources, and an array of facilities tailored to enhance the overall learning experience. GAUS, as a multidisciplinary institution, offers a broad spectrum of career-oriented, cutting-edge programs across both undergraduate and postgraduate levels. These programs span diverse disciplines, ensuring that students are equipped with the knowledge and skills necessary to excel in today's fast-evolving global landscape.

Currently, GAUS is home to more than **1,600 students**, a testament to its rapid growth and strong reputation. The university is proud to have over **150 dedicated faculty members**, including a significant number of **PhD-qualified professors** who contribute to both teaching and research. These faculty members are one of the institution's greatest assets, driving forward a culture of academic excellence and innovation. The university continuously strives to strengthen its academic and research programs by adopting unique, progressive, and innovative practices. Through these efforts, GAUS remains at the forefront of **educational innovation, consistently redefining and raising** the standards of academic excellence.



## VISION

Be a regional leader in producing the intellectual human resource in contemporary disciplines and to positively contribute in the educational and economic development of local and global communities to meet multidirectional challenges

## MISSION

To create a transformative educational environment to foster the cutting-edge knowledge, innovation and nurturing integrity in students by engaging specialized resources and aligning activities to achieve Sustainable Development Goals (SDGs)





## MOTTO

A motto is a short expression or combination of motivating words that describes a guiding principle of an organization. Mottos help institutions express what's important to them and how they want to do business. In branding, mottos are used as front-facing elements that capture and communicate a company's values. The following Motto has been given by the Chairman BOG for adoption at Grand Asian University Sialkot:

 **Knowledge**  **Excellence**  **Honour**

## CORE VALUES

Core values are the guiding principles because they form a solid core of who we are, what we believe, and want to be going forward. The following Core Values have been proposed for adoption at Grand Asian University Sialkot: We value:

<b>GAUS:</b>	An Arabic word means promoter of justice
<b>Innovation:</b>	Promoting research culture and creative thinking
<b>Integrity:</b>	Promoting self, institutional and national integrity
<b>Diversity:</b>	Promoting multi-cultural norms to strengthen society
<b>Talent:</b>	Promoting professional teaching and academic staff
<b>Teamwork:</b>	Promoting harmony and cooperative culture
<b>Loyalty:</b>	Promoting long term organizational relationship
<b>Respect:</b>	Promoting dignity and love for others
<b>Honesty:</b>	Promoting morality in employees and students
<b>Competency:</b>	Valuing competent human resource

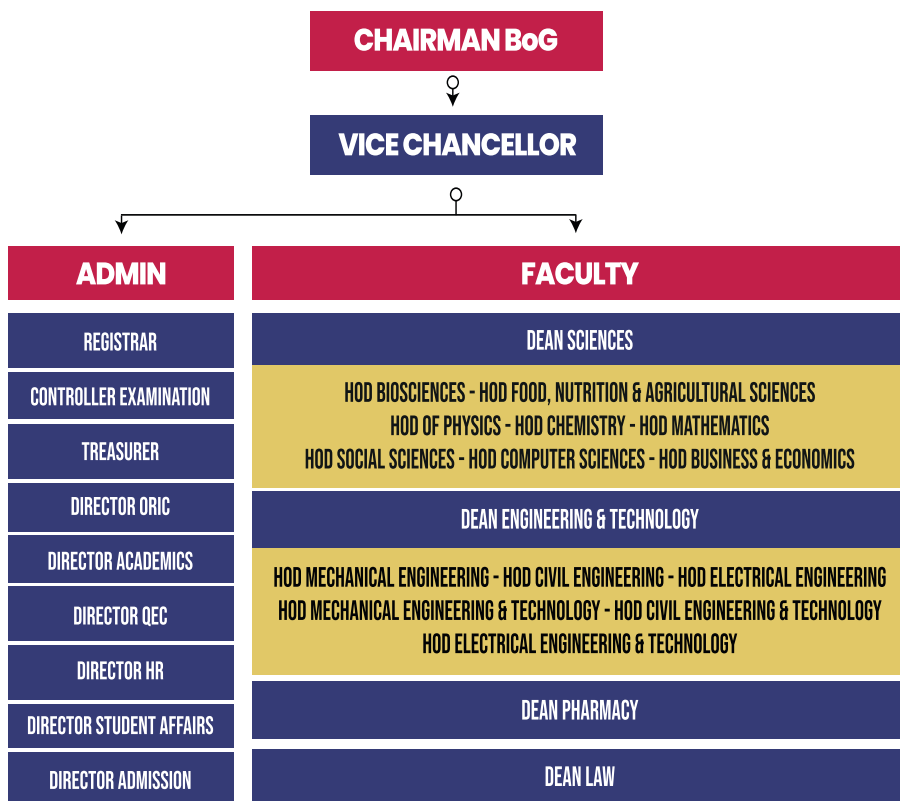


# UNIVERSITY GOVERNANCE

The good governance of any academic institution depends on the formal constitution and working of the authorities. In accordance with the Section 17, of GAUS Act, 2021, following organogram shows the Authorities of the University.

Moreover, the GAUS governance relies upon the Statutes, Regulations, Policies and SOPs are properly prepared and followed/ implemented in true letter and spirit. One of the important aspect of this governance is the provision of Vision & Mission to lead all the stakeholders to the right direction and ultimate growth of the institute.

## ORGANOGRAM









# ACADEMICS

## Faculties & Departments





## FACULTY OF SCIENCES

### Message From The Dean

I welcome all the new students who have taken admission in the Faculty of Sciences, Grand Asian University Sialkot. The Faculty of Sciences was established in 2023 after accreditation by HEC. Faculty of Sciences comprised of 8 Departments as Biosciences, Food Nutrition and Agricultural Sciences, Physics, Mathematics, Chemistry, Social Sciences, Computer Science, Software Engineering and IT, Management Science and Economics

Faculty of Sciences comprised of highly trained and experienced academia and well equipped laboratories. Along with its own, this faculty is catering to fulfill demand of other faculties in undergraduate and post-graduate teaching. Faculty is involved in active research collaborations within and among other faculties and with other National and International institutions. Faculty of Sciences currently is offering different degree programs entitled as ADP, BS, MS/MPhil and PhD.

The Dean Office monitors, assesses, investigates, and responds to new and evolving needs of individual students or student groups. In partnership with other directorates in the University and with the community at large, the office facilitates coordinated responses to immediate situations and develops proactive initiatives to prepare for future needs of the diverse student population. Our aim has always been to produce men and women of integrity, who should dedicate their capabilities for understanding and solving the National problems in general and the people residing in different areas of Punjab.



**Prof. Dr Islam Ullah Khan Lodhi**

Dean Sciences



## FACULTY OF SCIENCES

### Mission

The Faculty of Sciences is striving hard to provide state-of-the-art infrastructure and an interdisciplinary research environment premised through civil, public, and industrial collaboration embed with commitment, dedication and devotion among the prospective graduates to develop the profession acumen and responsibility to nurture entrepreneurship and further contribution in economic and social stability at regional and national levels in our country.





## FACULTY OF SCIENCES

### Department of Biosciences

#### Introduction

Bioscience is among the pioneer departments established in this faculty. This is one of the major departments plays a crucial role to educate in various fields, including biotechnology, biochemistry, zoology, botany, pharmacology, medical lab and imaging technologies. Comprising of highly educated academic faculty, this department is putting all its efforts out to impart quality education, create future leaders with integrity, enlighten with social norms and capable of devising knowledge based economy to contribute to the economic uplift of this region and country.

#### Objectives

The core objectives of this department are:

- to produce outstanding students with diverse academic and cultural background in various disciplines of sciences capable to compete at national and international level.
- to improve quality of education on regular basis through impeccable curriculum development.
- to improve well-being of human population by producing innovative research products to uplift living standards of community
- to focus and build up the students personality along with their professional development for their successful career.

### Programs Being Offered

- |                              |                    |
|------------------------------|--------------------|
| ▪ ADP Medical Lab Technology | ▪ BS Microbiology  |
| ▪ ADP Imaging Technology     | ▪ BS Botany        |
| ▪ ADP Zoology                | ▪ MS Biochemistry  |
| ▪ BS Zoology                 | ▪ MS Biotechnology |
| ▪ BS Biochemistry            | ▪ MS Pharmacology  |
| ▪ BS Biotechnology           |                    |



## Message From HOD



It is with great pride and enthusiasm that I extend a warm welcome to all students and prospective scholars of the Department of Biosciences at Grand Asian University, Sialkot. Our department is dedicated to providing a high standard of education and fostering innovative research in the rapidly evolving field of biosciences. With a focus on academic excellence and a strong commitment to advancing scientific knowledge, we aim to equip our students with the tools necessary to contribute meaningfully to the world of science and healthcare.

The Department of Biosciences is renowned for its outstanding academic programs, which include undergraduate, graduate, and postgraduate degrees in fields such as Medical Laboratory and Imaging Technologies, Molecular Biology, Biotechnology, Microbiology, Biochemistry and Pharmacology. Our rigorous curriculum is designed to build a solid foundation in both

theoretical concepts and practical laboratory skills. Our team of experienced and highly qualified faculty members guides students not only through their course work but also in research projects that explore cutting-edge topics such as genetic engineering, microbial technology, and environmental sustainability.

Research and development form the backbone of our department, and we continuously strive to expand our research capacity and contribute to global scientific advancements. Our students have access to state-of-the-art laboratories and facilities, enabling them to engage in hands-on learning and practical applications.

As the Head of the Department, leading and proud to shape the future of biosciences, contributing to scientific progress, and addressing the pressing challenges of our time. I look forward to seeing all of you achieve greatness in this exciting and dynamic field. We are here to get you all the current and new students to embark after getting admission in the fields mentioned above and march together to achieve the excellence in education and thereby to become the most functional graduates in society at large.

**Prof. Dr. Sajid Mahmood**  
Project Director, GAUS  
PhD Biochemistry





# ADP Medical Lab Technology

## Program Summary

Admission: Fall & Spring  
Program Duration: 02 Years  
Total Semesters: 04  
Total Credit Hours: 68

## Career Prospects

- \* Clinical Biochemists
- \* Establishment of Clinical Laboratories
- \* Academia & Molecular Biologists

## SCHEME OF STUDIES

SEMESTER 1		
Course code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
PSY-501	Introduction to Psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
BIO-501	Fundamentals of Biology	2(2-0)
BIO-501-P	Fundamentals of Biology LAB	1(0-1)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(1-0)
SEMESTER 2		
Course code	Course Title	Credit Hour
ENG-502	English II (Expository Writing)	3(3-0)
QRE-502	Quantitative Reasoning II	2(2-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
BCH-501	Introductory Biochemistry	2(2-0)
BCH-501-P	Introductory Biochemistry LAB	1(0-1)
MLT-501	Human Physiology	3(3-0)
UHQ-502	Understanding of Holy Quran II	1(1-0)
SEMESTER 3		
Course code	Course Title	Credit Hour
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics and Community Engagement	2(2-0)
MLT-501	Human Anatomy -I	2(2-0)
MLT-501-P	Human Anatomy -I LAB	1(0-1)
MLT-502	General Microbiology	2(2-0)
MLT-502-P	General Microbiology LAB	1(0-1)
MLT-503	Clinical Hematology	2(2-0)
MLT-503-P	Clinical Hematology LAB	1(0-1)
MLT-504	Introductory Pharmacology	2(2-0)
MLT-504-P	Introductory Pharmacology LAB	1(0-1)
MLT-505	Basic lab Principles, Lab Safety and First Aid lab -I	1(1-0)
MLT-506	Blood Banking	1(0-1)
SEMESTER 4		
Course code	Course Title	Credit Hour
MLT-507	Medical laboratory instrumentation and analytical techniques	2(2-0)
MLT-507-P	Medical laboratory instrumentation and analytical techniques LAB	1(0-1)
MLT-508	Histopathology and Histotechnology -I	2(2-0)
MLT-508-P	Histopathology and Histotechnology -I LAB	1(0-1)
BCH-606	Molecular Biology	2(2-0)
BCH-606-P	Molecular Biology LAB	1(0-1)
BCH-614	Clinical Biochemistry	2(2-0)
BCH-614-P	Clinical Biochemistry LAB	1(0-1)
MLT-509	Chemical Pathology -I	2(2-0)
MLT-509-P	Chemical Pathology -I LAB	1(0-1)
MLT-698	Clinical Lab Practice -I/Internship-I-LAB	3(0-3)



# ADP Imaging Technology

## Program Summary

Admission: Fall & Spring  
Program Duration: 02 Years  
Total Semesters: 04  
Total Credit Hours: 72

## Career Prospects

- \* Establishment of Ultra Sound and Other Radio-Graphical Facilities
- \* Academia and Technical Expertise in Various Hospitals and Poly Clinics

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
BIO-501	Fundamentals of Biology	2(2-0)
BIO-501-P	Fundamentals of Biology LAB	1(0-1)
PSY-501	Introduction to psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(0-1)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
MIT-501	Introductory Biochemistry	2(2-0)
MIT-501-P	Introductory Biochemistry LAB	1(0-1)
MIT-502	Human Physiology	3(3-0)
UHQ-502	Understanding of Holy Quran II	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
ENT-501	Entrepreneurship	2(2-0)
MIT-503	Basic lab Principles, Lab Safety and First Aid lab -I	1(0-1)
MIT-504	Patient Care	1(0-1)
MIT-505	Introductory Pharmacology	2(2-0)
MIT-505-P	Introductory Pharmacology LAB	1(0-1)
MIT-506	Human Anatomy-I	2(2-0)
MIT-506-P	Human Anatomy-I LAB	1(0-1)
MIT-507	Magnetic Resonance Imaging (MRI)	2(2-0)
MIT-507-P	Magnetic Resonance Imaging (MRI) LAB	1(0-1)
MIT-508	Embryology	2(2-0)
MIT-508-P	Embryology LAB	1(0-1)
CCE-501	Civics and Community Engagement	2(2-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
MIT-509	General Radiology	2(2-0)
MIT-509-P	General Radiology LAB	1(0-1)
MIT-510	Medical Imaging Physics and Instrumentation	2(2-0)
MIT-510-P	Medical Imaging Physics and Instrumentation LAB	1(0-1)
MIT-511	Abdominal & Gynecological Ultrasound	2(2-0)
MIT-511-P	Abdominal & Gynecological Ultrasound LAB	1(0-1)
MIT-512	Computed Tomography and Clinical Practice	2(2-0)
MIT-512-P	Computed Tomography and Clinical Practice LAB	1(0-1)
MIT-513	Radiation Sciences and Technology	3(3-0)
MIT-514	Clinical Lab Practice -I/Internship-I LAB	3(0-3)



# BS Biochemistry

## Program Summary

Admission: Fall & Spring  
Program Duration: 04 Years  
Total Semesters: 08  
Total Credit Hours: 131

## Career Prospects

- \* Biochemistry offers diverse career paths in healthcare, research, industry, and education:
- \* Clinical biochemists, pharmaceutical researchers, forensic scientists, and genetic counselors.
- \* Agricultural biochemists, environmental biochemists, and toxicologists.
- \* Biochemical engineers and quality control analysts.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
BCH-501	Introductory Biochemistry	2(2-0)
BCH-501-P	Introductory Biochemistry LAB	1(0-1)
PSY-501	Introduction to Psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(1-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
BCH-502	Carbohydrates & Lipids	2(2-0)
BCH-502-P	Carbohydrates & Lipids LAB	1(0-1)
BCH-503	Amino acids & Proteins	2(2-0)
BCH-503-P	Amino acids & Proteins LAB	1(0-1)
UHQ-502	Understanding of Holy Quran II	1(1-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CHEM-103	Inorganic Chemistry	2(2-0)
CHEM-103-P	Inorganic Chemistry LAB	1(0-1)
ECO-501	Fundamentals of Ecology	2(2-0)
ECO-501-P	Fundamentals of Ecology LAB	1(0-1)
ZOO-503	Cell Biology	2(2-0)
ZOO-503-P	Cell Biology LAB	1(0-1)
MIC-501	Microbiology	2(2-0)
MIC-501-P	Microbiology LAB	1(0-1)
BCH-506	Bio-membrane and Cell Signaling	2(2-0)
BCH-506-P	Bio-membrane and Cell Signaling LAB	1(0-1)
CCE-501	Civics and Community Engagement	2(2-0)



SEMESTER 4		
Course Code	Course Title	Credit Hour
ENT-501	Entrepreneurship	2(2-0)
CHEM-104	Organic Chemistry	2(2-0)
CHEM-104-P	Organic Chemistry LAB	1(0-1)
BCH-507	Immunology	2(2-0)
BCH-507-P	Immunology LAB	1(0-1)
BCH-508	Metabolism 1	2(2-0)
BCH-508-P	Metabolism 1 LAB	1(0-1)
BCH-509	Enzymology	2(2-0)
BCH-509-P	Enzymology LAB	1(0-1)
ZOO-506	Fundamentals of Genetics	3(3-0)
SEMESTER 5		
Course Code	Course Title	Credit Hour
CHEM-208	Physical Chemistry	2(2-0)
CHEM-208-P	Physical Chemistry LAB	1(0-1)
BCH-601	Integrated Metabolism	2(2-0)
BCH-601-P	Integrated Metabolism LAB	1(0-1)
BCH-602	Plant Biochemistry	2(2-0)
BCH-602-P	Plant Biochemistry LAB	1(0-1)
BCH-603	Current trends in Biochemistry	2(2-0)
BCH-603-P	Current trends in Biochemistry LAB	1(0-1)
BCH-604	Biochemical Techniques	2(2-0)
BCH-604-P	Biochemical Techniques LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
CHEM-209	Analytical Chemistry	2 (2-0)
CHEM-209-P	Analytical Chemistry LAB	1(0-1)
BCH-606	Molecular Biology	2(2-0)
BCH-606-P	Molecular Biology LAB	1(0-1)
BCH-607	Bioenergetics	2(2-0)
BCH-607-P	Bioenergetics LAB	1(0-1)
BCH-608	Nutritional Biochemistry	2(2-0)
BCH-608-P	Nutritional Biochemistry LAB	1(0-1)
BCH-609	Cell and Tissue Culture	2(2-0)
BCH-609-P	Cell and Tissue Culture LAB	1(0-1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
BCH-610	Introduction to Bioinformatics	3(3-0)
BIO-601	Biosafety and Bioethics	2(2-0)
BIO-601-P	Biosafety and Bioethics LAB	1(0-1)
BCH-612	Research Planning and Report Writing	3(3-0)
BCH-613	Methods in Molecular Biology	2(2-0)
BCH-61-P	Methods in Molecular Biology LAB	1(0-1)
BCH-618	Molecular Genetics	3(3-0)
BCH-697	Internship/Field Experience	3(0-3)
SEMESTER 8		
Course Code	Course Title	Credit Hour
BCH-614	Clinical Biochemistry	2(2-0)
BCH-614-P	Clinical Biochemistry LAB	1(0-1)
BCH-615	Environmental Biochemistry	2(2-0)
BCH-615-P	Environmental Biochemistry LAB	1(0-1)
BCH-617	Pharmacology	2(2-0)
BCH-617-P	Pharmacology LAB	1(0-1)
BCH-698	Capstone Research Project	3(0-3)



## MS Biochemistry

### Program Summary

Admission: Fall & Spring  
Program Duration: 02 Years  
Total Credit Hours: 30

### Career Prospects

- \* Biochemistry offers diverse career paths in healthcare, research, industry, and education:
- \* Clinical biochemists, pharmaceutical researchers, forensic scientists, and genetic counselors.
- \* Agricultural biochemists, environmental biochemists, and toxicologists.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
STAT-701	Biostatistics	3(3-0)
BCH-701	Research Methodology	3(3-0)
BTH-701	Advances in Analytical Techniques	3(3-0)
BCH-702	Advances in Molecular Biology	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
BTH-704	Fermentation and Bioprocess Technology	3(3-0)
BCH-703	Advances in Biochemistry	3(3-0)
BCH-706	Advances in Clinical Biochemistry	3(3-0)
BCH-709	Special Problems	2(2-0)
BCH-710	Seminar	1(0-1)
SEMESTER S 3&4		
Course Code	Course Title	Credit Hour
BCH-708	Research and Thesis	6(0-6)

## ADP and BS Zoology

### Program Summary

Admission: Fall & Spring  
Program Duration: 2 & 4 Years  
Total Semesters: 4 & 8  
Total Credit Hours: 70 & 131

### Career Prospects

- \* Working to protect endangered species and natural environments.
- \* Research in fisheries and aquaculture
- \* Studying ecosystems and biodiversity.
- \* Teaching and conducting research in applied fields of zoology

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
ZOO-501	Animal Diversity I	2(2-0)
ZOO-501-P	Animal Diversity I LAB	1(0-1)



PSY-501	Introduction to Psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(1-0)
<b>SEMESTER 2</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
ZOO-502	Animal Diversity II	2(2-0)
ZOO-502-P	Animal Diversity II LAB	1(0-1)
ZOO-503	Cell Biology	2(2-0)
ZOO-503-P	Cell Biology LAB	1(0-1)
UHQ-502	Understanding of Holy Quran II	1(1-0)
<b>SEMESTER 3</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM-103	Inorganic Chemistry	2(2-0)
CHEM-103-P	Inorganic Chemistry LAB	1(0-1)
ECO-501	Fundamentals of Ecology	2(2-0)
ECO-501-P	Fundamentals of Ecology LAB	1(0-1)
BCH-502	Carbohydrates and Lipids	2(2-0)
BCH-502-P	Carbohydrates and Lipids LAB	1(0-1)
ZOO-504	Form and Function I	2(2-0)
ZOO-504-P	Form and Function I LAB	1(0-1)
MIC-501	Introductory Microbiology	2(2-0)
MIC-501-P	Introductory Microbiology LAB	1(0-1)
CCE-501	Civics and community engagement	2(2-0)
<b>SEMESTER 4</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM-104	Organic Chemistry	2(2-0)
CHEM-104-P	Organic Chemistry LAB	1(0-1)
ZOO-505	Form and Function II	2(2-0)
ZOO-505-P	Form and Function II LAB	1(0-1)
BTH-501	Introduction to Biotechnology	2(2-0)
BTH-501-P	Introduction to Biotechnology LAB	1(0-1)
ZOO-506	Genetics	2(2-0)
ZOO-506-P	Genetics LAB	1(0-1)
BCH-606	Molecular Biology	2(2-0)
BCH-606-P	Molecular Biology LAB	1(0-1)
ENT-501	Entrepreneurship	2(2-0)
<b>SEMESTER 5</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM-208	Physical Chemistry	2(2-0)
CHEM-208-P	Physical Chemistry LAB	1(0-1)
ZOO-601	Animal Physiology	3(3-0)
ZOO-602	Developmental Biology	2(2-0)
ZOO-602-P	Developmental Biology LAB	1(0-1)
ZOO-603	Wildlife	2(2-0)
ZOO-604	Evolution	2(2-0)
BOT-501	Diversity of plants	2(2-0)
BOT-501-P	Diversity of plants LAB	1(0-1)



SEMESTER 6		
Course Code	Course Title	Credit Hour
BOT-505	Plant Physiology	3(3-0)
ZOO-605	Animal Behavior	2(2-0)
ZOO-605-P	Animal Behavior LAB	1(0-1)
ZOO-606	Zoogeography and Paleontology	2(2-0)
ZOO-606-P	Zoogeography and Paleontology LAB	1(0-1)
ZOO-607	Bioinformatics	2(2-0)
ZOO-607-P	Bioinformatics LAB	1(0-1)
ZOO-696	Biological Techniques	2(2-0)
ZOO-696-P	Biological Techniques LAB	1(0-1)
ZOO-609	Immunology	2(2-0)
ZOO-609-P	Immunology LAB	1(0-1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
BIO-601	Biosafety and Bioethics	3(3-0)
ZOO-695	Synopsis and Research Methodology	3(3-0)
ZOO-610	Fisheries	2(2-0)
ZOO-610-P	Fisheries LAB	1(0-1)
ZOO-611	Entomology	2(2-0)
ZOO-611-P	Entomology LAB	1(0-1)
ZOO-697	Internship/Field Experience	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
ZOO-612	Economic Zoology	2(2-0)
ZOO-612-P	Economic Zoology LAB	1(0-1)
ZOO-613	Parasitology	2(2-0)
ZOO-613-P	Parasitology LAB	1(0-1)
ZOO-614	Ichthyology	2(2-0)
ZOO-614-P	Ichthyology LAB	1(0-1)
ZOO-698	Capstone Research Project	3(0-3)

## BS Biotechnology

### Program Summary

Admission: Fall 2025

Program Duration: 04 Years

Total Semesters: 08

Total Credit Hours: 132

### Career Prospects

- \* Genetic modification, crop improvement, bioengineering of food products and sustainable farming technologies.
- \* Production of enzymes, biofuels, and biodegradable materials.
- \* Ensuring compliance with industry standards in biotech companies.
- \* Teaching, academic research, biotech innovation and biotech startups.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(0-2)
BTH-501	Introduction to Biotechnology	2(2-0)
BTH-501-P	Introduction to Biotechnology LAB	1(0-1)



PSY -501	Introduction to Psychology	2(2-0)
ENG -501	English -I	3(3-0)
QRE -501	Quantitative Reasoning I	3(3-0)
ISL -501	Islamic Studies	2(2-0)
PKS -501	Pakistan Studies	2(2-0)
UHQ -501	Understanding of Holy Quran I	1(1-0)
SEMESTER 2		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
ENG -502	Expository Writing	3(3-0)
QRE -502	Quantitative Reasoning II	3(2-0)
ICP -501	Ideology and Constitution of Pakistan	2(2-0)
ICT -501	Applications of Information and Communication Technologies	2(2-0)
ICT -501 -P	Applications of Information and Communication Technologies LAB	1(0-1)
BTH -502	Cell Biology	2(2-0)
BTH -502 -P	Cell Biology LAB	1(0-1)
BCH -501	Biochemistry -I	2(2-0)
BCH -501 -P	Biochemistry -I LAB	1(0-1)
UHQ -502	Understanding of Holy Quran II	1(1-0)
SEMESTER 3		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM -103	Inorganic Chemistry	2(2-0)
CHEM -103 -P	Inorganic Chemistry LAB	1(0-1)
ECO -501	Fundamentals of Ecology	2(2-0)
ECO -501 -P	Fundamentals of Ecology LAB	1(0-1)
BTH -503	Analytical Techniques & Instrumentation	2(2-0)
BTH -503 -P	Analytical Techniques & Instrumentation LAB	1(0-1)
MIC -501	Microbiology	2(2-0)
MIC -501 -P	Microbiology LAB	1(0-1)
CCE -501	Civics and Community Engagement	2(2-0)
BCH -502	Biochemistry -II	2(2-0)
BCH -502 -P	Biochemistry -II LAB	1(0-1)
SEMESTER 4		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM -104	Organic Chemistry	2(2-0)
CHEM -104 -P	Organic Chemistry LAB	1(0-1)
ENT -501	Entrepreneurship	2(2-0)
BCH -606	Molecular Biology	2(2-0)
BCH -606 -P	Molecular Biology LAB	1(0-1)
BTH -504	Nano Biotechnology	3(3-0)
BTH -505	Enzymology	2(2-0)
BTH -505 -P	Enzymology LAB	1(0-1)
ZOO -506	Genetics	2(2-0)
ZOO -506 -P	Genetics LAB	1(0-1)
SEMESTER 5		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
CHEM -209	Analytical Chemistry	2(2-0)
CHEM -209 -P	Analytical Chemistry LAB	1(0-1)
ZOO -609	Immunology	2(2-0)
ZOO -609 -P	Immunology LAB	1(0-1)
BTH -615	Genetic Resources and Conservation	3(3-0)
BTH -601	Microbial Biotechnology	2(2-0)
BTH -601 -P	Microbial Biotechnology LAB	1(0-1)
BTH -616	Molecular diagnosis	2(2-0)
BTH -616 -P	Molecular diagnosis LAB	1(0-1)



SEMESTER 6		
Course Code	Course Title	Credit Hour
BCH-614	Clinical Biochemistry	2(2-0)
BCH-614-P	Clinical Biochemistry LAB	1(0-1)
BTH-602	Health Biotechnology	3(3-0)
BTH-603	Environmental Biotechnology	3(3-0)
BTH-604	Industrial Biotechnology	3(3-0)
BTH-605	Food Biotechnology	2(2-0)
BTH-605-P	Food Biotechnology LAB	1(0-1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
BTH-606	Animal Biotechnology	3(3-0)
BTH-607	Cell and Tissue Culture	2(2-0)
BTH-607-P	Cell and Tissue Culture LAB	1(0-1)
BTH-695	Research methodology and Skill Enhancement	2(2-0)
BTH-695-P	Research methodology and Skill Enhancement LAB	1(0-1)
BTH-608	Principles of Biochemical Engineering	3(3-0)
BTH-696	Internship / Field Experience	3(0-3)
SEMESTER 8		
Course Code	Course Title	Credit Hour
BTH-609	Agricultural Biotechnology	3(3-0)
BCH-618	Genomics and Proteomics	3(3-0)
BTH-610	Biosafety and Bioethics	2(2-0)
BTH-697	Capstone Research Project	3(0-3)
ZOO-607	Bioinformatics	2(2-0)
ZOO-607-P	Bioinformatics LAB	1(0-1)
BTH-611	Lab Principles, Lab Safety & First Aid	2(2-0)
BTH-611-P	Lab Principles, Lab Safety & First Aid LAB	1(0-1)

## MS Biotechnology

**Program Summary**  
**Admission: Fall 2025**  
**Total Credit Hours: 30**  
**Duration: 2 years**

### Career Prospects

- \* Genetic modification, crop improvement, bioengineering of food products and sustainable farming technologies.
- \* Production of enzymes, biofuels, and biodegradable materials.
- \* Ensuring compliance with industry standards in biotech companies.
- \* Teaching, academic research, biotech innovation and biotech startups.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
STAT-701	Biostatistics	3(3-0)
BCH-701	Research Methodology	3(3-0)
BTH-701	Advances in Analytical Techniques	3(3-0)
BTH-705	Recombinant DNA Technology	3(3-0)



SEMESTER 2		
Course Codes	Course Title	Credit Hour
BTH-704	Fermentation and Bioprocess Technology	3(3-0)
BTH-702	Modern Biotechnology; Principles and Applications	3(3-0)
BTH-707	Advances in cell and tissue culture	3(3-0)
BTH-709	Special Problems	2(2-0)
BTH-710	Seminar	1(0-1)
SEMESTER S 3&4		
Course Code	Course Title	Credit Hour
BTH-708	Research and Thesis	6(0-6)

## BS Microbiology

### Program Summary

Admission: Fall 2025

Program Duration: 04 Years

Total Semesters: 08

Total Credit Hours: 130

### Career Prospects

- \* Diagnosing infectious diseases in hospitals and labs.
- \* Developing antibiotics, vaccines, and other drugs.
- \* Ensuring food safety and quality by studying microorganisms in food.
- \* Developing biotechnological products using microbes.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
MIC-501	Introductory Microbiology	2(2-0)
MIC-501-P	Introductory Microbiology LAB	1(0-1)
PSY-501	Introduction to Psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(1-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
MIC-502	Microbiological Anatomy and physiology	2(2-0)
MIC-502-P	Microbiological Anatomy and physiology LAB	1(0-1)
ZOO-503	Cell Biology	2(2-0)
ZOO-503-P	Cell Biology LAB	1(0-1)
UHQ-502	Understanding of Holy Quran II	1(1-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CHEM-103	Inorganic Chemistry	2(2-0)
CHEM-103-P	Inorganic Chemistry LAB	1(0-1)
ECO-101	Fundamentals of Ecology	2(2-0)
ECO-101-P	Fundamentals of Ecology LAB	1(0-1)
MIC-503	Bacterial Genetics	2(2-0)
MIC-503-P	Bacterial Genetics LAB	1(0-1)
BTH-501	Introduction to Biotechnology	2(2-0)
BTH-501-P	Introduction to Biotechnology LAB	1(0-1)
BCH-501	Biochemistry I	2(2-0)
BCH-501-P	Biochemistry I LAB	1(0-1)
CCE-501	Civics and Community Engagement	2(2-0)



SEMESTER 4		
Course Code	Course Title	Credit Hour
CHEM -104	Organic Chemistry	2(2-0)
CHEM -104-P	Organic Chemistry LAB	1(0-1)
MIC -504	Microbial taxonomy	2(2-0)
MIC -504-P	Microbial taxonomy LAB	1(0-1)
MIC -505	Molecular Biology	2(2-0)
MIC -505-P	Molecular Biology LAB	1(0-1)
MIC -506	Microbiology Enzymology	2(2-0)
MIC -506-P	Microbiology Enzymology LAB	1(0-1)
BCH -502	Biochemistry II	2(2-0)
BCH -502-P	Biochemistry II LAB	1(0-1)
ENT -501	Entrepreneurship	2(2-0)
SEMESTER 5		
Course Code	Course Title	Credit Hour
ZOO -694	Biodiversity of Animals	2(2-0)
ZOO -694-P	Biodiversity of Animals LAB	1(0-1)
MIC -601	Introduction to Medical microbiology	2(2-0)
MIC601 -P	Introduction to Medical microbiology LAB	1(0-1)
MIC -602	General Virology	2(2-0)
MIC -602-P	General Virology LAB	1(0-1)
BOT -604	Mycology	2(2-0)
BOT -604-P	Mycology LAB	1(0-1)
MIC -603	Clinical Parasitology	2(2-0)
MIC -603-P	Clinical Parasitology LAB	1(0-1)
MIC -604	General Immunology	2(2-0)
MIC -604-P	General Immunology LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
BOT -501	Biodiversity of Plants	2(2-0)
BOT -501-P	Biodiversity of Plants LAB	1(0-1)
MIC -605	Food Microbiology	2(2-0)
MIC -605-P	Food Microbiology LAB	1(0-1)
MIC -606	Environment Microbiology	2(2-0)
MIC -606-P	Environment Microbiology LAB	1(0-1)
MIC -607	Medical Virology	2(2-0)
MIC607 -P	Medical Virology - LAB	1(0-1)
MIC -608	Fresh Water Microbiology	2(2-0)
MIC -608-P	Fresh Water Microbiology LAB	1 (0-1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
BIO -601	Biosafety and Bioethics	3(3-0)
MIC -609	Cell and Tissue Culture	2(2-0)
MIC -609-P	Cell and Tissue Culture LAB	1(0-1)
MIC -695	Research Methodology	3(3-0)
MIC -610	Epidemiology and Public health	2(2-0)
MIC -610-P	Epidemiology and Public health LAB	1(0-1)
MIC -697	Internship/Field Experience	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
MIC -611	Pharmaceutical and industrial Microbiology	2(2-0)
MIC -611-P	Pharmaceutical and industrial Microbiology LAB	1(0-1)
MIC -612	Soil Microbiology	2(2-0)
MIC -612	Soil Microbiology LAB	1(0-1)
MIC -613	Infectious waste management	2(0-1)
MIC -613-P	Infectious waste management LAB	1(0-1)
MIC -698	Capstone Research Project	3(0-3)



## BS Botany

### Program Summary

Admission: Fall 2025

Program Duration: 04 Years

Total Semesters: 08

Total Credit Hours: 130

### Career Prospects

- \* Research in plant biology, genetics, and growth.
- \* Improving crop production and farming practices.
- \* Studying plant ecosystems and biodiversity.
- \* Advising on plant conservation and sustainability projects.
- \* Conducting botanical research or teaching in academic settings.
- \* Working in disease control and prevention.

## SCHEME OF STUDIES

sSEMESTER 1		
Course Code	Course Title	Credit Hour
HIS-501	Introduction to History	2(2-0)
BOT-501	Diversity of Plants and Related Life	2(2-0)
BOT-501-P	Diversity of Plants and Related Life LAB	1(1-0)
PSY-501	Introduction to Psychology	2(2-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
UHQ-501	Understanding of Holy Quran I	1(1-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
ZOO-506	Cell Biology	2(2-0)
ZOO-506-P	Cell Biology LAB	1(0-1)
BOT-503	Plant Systematics, Anatomy and Development Embryology	2(2-0)
BOT-503-P	Plant Systematics Anatomy and Development Embryology LAB	1(0-1)
UHQ-502	Understanding of Holy Quran II	1(1-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CHEM-103	Inorganic Chemistry	2(2-0)
CHEM-103-P	Inorganic Chemistry LAB	1(0-1)
ECO-501	Fundamentals of Ecology	2(2-0)
ECO-501-P	Fundamentals of Ecology LAB	1(0-1)
ZOO-501	Animal Diversity I	2(2-0)
ZOO-501-P	Animal Diversity I LAB	1(0-1)
CCE-501	Civic and Community Engagement	2(2-0)
MIC-501	Microbiology	2(2-0)
MIC-501-P	Microbiology LAB	1(0-1)
BOT-505	Plant Physiology	2(2-0)
BOT-505-P	Plant Physiology LAB	1(0-1)
SEMESTER 4		
Course Code	Course Title	Credit Hour
CHEM-104	Organic Chemistry	2(2-0)
CHEM-104-P	Organic Chemistry LAB	1(0-1)
ZOO-502	Animal Diversity II	2(2-0)
ZOO-502-P	Animal Diversity-II LAB	1(0-1)
BOT-507	Ethnobotany	2(2-0)
BOT-507-P	Ethnobotany LAB	1(0-1)
BCH-606	Molecular biology	2(2-0)
BCH-606-P	Molecular biology LAB	1(0-1)
BOT-508	Entrepreneurship	2(2-0)
ZOO-506	Genetics	3(3-0)



SEMESTER 5		
Course Code	Course Title	Credit Hour
BOT -601	Plant Pathology	3(3 -0)
BTH -602	Biodegradation and Bioremediation	2(2 -0)
BTH -602 -P	Biodegradation and Bioremediation LAB	1(0 -1)
MIC -620	Bacteriology and Virology	3(3 -0)
BOT -604	Lower Fungi	2(2 -0)
BOT -604 -P	Lower Fungi - LAB	1(0 -1)
BOT -605	Bryology	2(2 -0)
BOT -605 -P	Bryology - LAB	1(0 -1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
BIO -601	Biosafety and Bioethics	2(2 -0)
BIO -601 -P	Biosafety and Bioethics LAB	1(0 -1)
BOT -602	Plant Biotechnology	2(2 -0)
BOT -602 -P	Plant Biotechnology LAB	1(0 -1)
BOT -603	Challenges of a Changing Earth	3(3 -0)
BOT -604	Mycology	2(2 -0)
BOT -604 -P	Mycology LAB	1(0 -1)
BCH -602	Plant Biochemistry	2(2 -0)
BCH -602 -P	Plant Biochemistry LAB	1(0 -1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
BOT -611	Diversity of Vascular Plants	2(2 -0)
BOT -611 -P	Diversity of Vascular Plants LAB	1(0 -1)
BOT -612	Biodiversity & Conservation	2(2 -0)
BOT -613	Plant Anatomy	2(2 -0)
BOT -613 -P	Plant Anatomy LAB	1(0 -1)
BCH -618	Molecular Genetics	2(2 -0)
BCH -618 -P	Molecular Genetics LAB	1(0 -1)
BOT -699	Research Planning and Report Writing	2(2 -0)
BOT -699 -P	Research Planning and Report Writing LAB	1(1 -0)
BOT -697	Internship/Field Experience	3(0 -3)
SEMESTER 8		
Course Code	Course Title	Credit Hour
BOT -615	Environmental Biology	2(2 -0)
BOT -615 -P	Environmental Biology - LAB	1(0 -1)
BOT -616	Palynology	2(2 -0)
BOT -616 -P	Palynology - LAB	1(0 -1)
BOT -617	Plant Nutrition and Soil Fertility	2(2 -0)
BOT -617 -P	Plant Nutrition and Soil Fertility -LAB	1(0 -1)
BOT -698	Capstone Research Project	3(0 -3)



## MS Pharmacology

### Program Summary

Admission: Fall & Spring

Total Credit Hours: 30

Duration: 2 Years

### Career Prospects

- \* Studying drug effects on humans for safety and efficacy.
- \* Developing new drugs and therapies.
- \* Assessing the safety and effects of drugs and chemicals.
- \* Ensuring compliance with drug regulations.
- \* Teaching pharmacology or conducting drug-related research.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
STAT -701	Biostatistics	3(3-0)
BCH -701	Research Methodology	3(3-0)
BTH -701	Advance Analytical Techniques	3(3-0)
PHARM -707	Therapeutic Drug monitoring	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
PHARM -708	Chemotherapeutics	3(3-0)
PHARM -710	Pharmacopathology	3(3-0)
PHARM -709	Basic and advanced pharmacology	3(3-0)
BCH -703	Advances in Biochemistry	3(3-0)
SEMESTER S 3&4		
Course Code	Course Title	Credit Hour
PHARM -711	Research and Thesis	6(0-6)





## FACULTY OF SCIENCES

### Department of Food, Nutrition & Agriculture Sciences

#### Introduction

This Department feels pleasure to welcome all the students who have taken admission in the Grand Asian University, Sialkot. The Department being one of the major department is offering ADP, BS, MS and Ph.D Programs in Human Nutrition and Dietetics and Food Science and Technology. In addition, this department is also offering BS programs in Food Safety and Quality Management, Environmental Sciences and Public Health. Among them, the discipline of Human Nutrition and Dietetics is one of the most chosen department. The message from the HOD of Nutrition and Agriculture Sciences typically emphasizes the importance of sustainable practices, innovation in food systems, and the role of nutrition in public health. It may also highlight the commitment to research, education, and community engagement, aiming to address global challenges like food security and health disparities. Collaboration across disciplines is often encouraged to foster advancements in these critical areas.

#### Objective

The core objectives are:

- to produce competent graduates with adequate scientific background to meet the implied needs of public and private sector
- to provide professional leadership, services and outreach activities in the major areas of Nutritional Sciences, food science, environmental sciences and public health.
- to contribute and help resolving the nutritional and health issues in our country
- to develop human resource competent enough to address emerging issues and challenges in the field of food science and technology
- to train man power having capacity to serve the nation in terms of food security and safety
- to promote critical thinking and problem-solving skills to analyze and address complex environmental challenges.
- to equip students with practical skills in environmental assessment, monitoring, and data analysis, using modern tools and technologies
- to instill a commitment to ethical practices and social responsibility in addressing public health challenges.
- to prepare graduates for careers in various public health sectors, including epidemiology, health education, health policy, and environmental health.

### Programs Being Offered

- ADP Human Nutrition and Dietetics
- ADP Food Science and Technology
- BS Human Nutrition and Dietetics
- BS Food Science and Technology
- BS Food Safety and Quality Management
- BS Environmental Science
- Post Graduate Diploma in Halal Industry



## Message From HOD



With great pleasure, I welcome all the students who have taken admission in the Department of Food, Nutrition, and Agriculture Sciences at Grand Asian University, Sialkot. As one of the major and dynamic departments of the university, we are committed to providing quality education, fostering research, and preparing our students to make significant contributions to the food, nutrition, and environmental sectors.

Our department offers ADP and BS programs in Human Nutrition and Dietetics, Food Science and Technology, Food Safety and Quality Management, and Environmental Science. These programs are designed to equip students with a deep understanding of the principles and practices required to address the challenges of the modern world,

including those related to food security, public health, and sustainable food, nutrition and environmental practices. The department highlights the importance of innovation and sustainability in food systems, food quality management, role of food and nutrition in clinical therapies specifically and as well as the crucial role in improving the nutritional and environmental health of public at large. Our rigorous curriculum is designed to build a solid foundation in both theoretical concepts and practical laboratory skills, ensuring that our students are well-prepared for careers in research, healthcare, environmental management, and industry.

We are deeply committed to advance research and education that address global challenges such as food insecurity, nutritional and health disparities, and environmental sustainability. Collaboration across disciplines is encouraged within our department, enabling students and faculty to engage in ground breaking work that tackles these critical issues.

We, the professional faculty of the department, are excited to work with our current and new students, to guide them through this journey of learning, research, and community engagement. As you embark on this exciting academic adventure, we encourage you to take full advantage of the opportunities before you, and together, we will contribute to the advancement of food, nutrition, and agriculture sciences on both at national and global scale.

Welcome to a brighter future with Grand Asian University, Sialkot!

### **Prof. Muhammad Mushtaq Ahmad**

Ph.D and Post Doctorate

Chairman Halal Certification Board

Punjab Halal Development Agency, Lahore

Former Member National Agriculture Experts

Panel, Pakistan Govt. Vision-2025.





## ADP and BS Human Nutrition and Dietetics

### Program Summary

Admissions: Fall and Spring  
Program Duration: 2 & 4 years  
Total Semesters: 4 & 8  
Total Credit Hours: 135

### Career Prospects

- \* Clinical Dietitian/Nutritionist
- \* Public Health Nutritionist
- \* Food Service Manager
- \* Private Practice
- \* Research and Academia
- \* Corporate Nutritionist/Food Industry Expert
- \* Sports Nutritionist
- \* Health Coach
- \* Policy Advisor

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ES-501	Introduction to Environmental sciences	2(2-0)
ES-501-P	Introduction to Environmental sciences LAB	1(0-1)
HIST -501	Introduction to History	2(2 -0)
HND -501	Fundamentals of Human Nutrition	3(3 -0)
ENG -501	Functional English	3(3 -0)
QRE -501	Quantitative Reasoning -I	3(3 -0)
ISL -501	Islamic Studies	2(2 -0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
HND -502	Introduction to Food Science and Technology	2(2-0)
HND -502 -P	Introduction to Food Science and Technology LAB	1(0-1)
ICT -503	Applications of Information and Communication Technologies	2(2 -0)
ICT -503 -P	Applications of Information and Communication Technologies LAB	1(0 -1)
ICP -501	Ideology & Constitution of Pakistan	2(2 -0)
ENG -502	Expository Writing	3(3 -0)
QRE -502	Quantitative Reasoning -II	3(3 -0)
CCE -501	Civics & Community Engagement	2(2 -0)
PKS -501	Pakistan Studies	2(2 -0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
HND -503	Macronutrients in Human Nutrition	3(3 -0)
PSY -501	Introduction to Psychology	2(2 -0)
HND -504	Human Anatomy	2(2 -0)
HND -504 -P	Human Anatomy LAB	1(0 -1)
HND -505	General Pathology	2(2 -0)
HND -505 -P	General Pathology LAB	1(0 -1)
HND -506	Nutritional Education and Awareness	3(3 -0)
HND -507	Food Toxicology	3(3 -0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
HND -508	Micronutrients in Human Nutrition	3(3 -0)
HND -509	Human Physiology -I	3(3 -0)
HND -510	Nutrition through Life Cycle	3(3 -0)
HND -511	Meal Planning and Management	2(2 -0)
HND -511 -P	Meal Planning and Management LAB	1(0 -1)
HND -512	Assessment of Nutritional Status	2(2 -0)
HND -512 -P	Assessment of Nutritional Status LAB	1(0 -1)
ENT -501	Entrepreneurship	2(2 -0)
THQ -501	Teaching of Holy Quran	Non -Credited



SEMESTER 5		
Course Code	Course Title	Credit Hour
FSQM -501	Food Safety and Quality Management	3(3-0)
FBIT -515	Food Biotechnology	3(3-0)
HND -513	Human Physiology -II	3(3-0)
HND -514	Food Microbiology	2(2-0)
HND -514 -P	Food Microbiology LAB	1(0-1)
HND -515	Functional Food and Nutraceutical	3(3-0)
HND -516	Dietetics -I	2(2-0)
HND -516 -P	Dietetics -I LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
HND -517	Public Health Nutrition	3(3-0)
HND -518	Scientific Report Writing	3(3-0)
HND -519	Nutritional Practices in Clinical Care	2(2-0)
HND -519 -P	Nutritional Practices in Clinical Care LAB	1(0-1)
HND -520	Dietetics -II	3(3-0)
HND -521	Food Analysis	2(2-0)
HND -521 -P	Food Analysis LAB	1(0-1)
BIOCHEM -501	Mineral and Water Metabolism	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
HND -522	Dietetics -III	3(3-0)
HND -523	Nutrition in Emergencies	3(3-0)
HND -524	Sports Nutrition	2(2-0)
HND -524 -P	Sports Nutrition LAB	1(0-1)
HND -525	Food Service Management	3(3-0)
HND -526	Internship	3(0-3)
SEMESTER 8		
Course Code	Course Title	Credit Hour
HND -527	Infant and Young Child Feeding	2(2-0)
HND -527 -P	Infant and Young Child Feeding LAB	1(0-1)
HND -528	Global Food Issues	3(3-0)
HND -529	Nutrition and Psychology	3(3-0)
HND -530	Nutrition Policies and Programs	3(3-0)
HND -531	Research Project	3(3-0)
HND -532	Food and Drug Laws	3(3-0)

## ADP and BS Food Science and Technology

### Program Summary

Admissions: Fall and Spring

Program Duration: 2 & 4 years

Total Semesters: 4 & 8

Total Credit Hours: 66 & 135

### Career Prospects

Graduates with a degree in Food Science and Technology have diverse career opportunities across industries related to food production, safety, quality, and innovation.

- \* Food Technologist
- \* Quality Assurance Manager
- \* Product Development Scientist
- \* Food Safety Specialist
- \* Food Microbiologist
- \* Supply Chain Manager
- \* Food Analyst/Chemist:
- \* Entrepreneur/Business Owner
- \* Food Marketing and Sales
- \* Research Scientist (Academic or Industry)



## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
HIST -501	Introduction to History	2(2-0)
FST -501	Introduction to Food Science and Technology	2(2-0)
FST -501 -P	Introduction to Food Science and Technology LAB	1(0-1)
ENG -501	Functional English	3(3-0)
QRE -501	Quantitative Reasoning -I	3(3-0)
ISL -501	Islamic Studies	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
FST -502	Fundamentals of Human Nutrition	3(3-0)
ICT -503	Applications of Information and Communication Technologies	2(2-0)
ICT -503 -P	Applications of Information and Communication Technologies LAB	1(0-1)
ICP -501	Ideology & Constitution of Pakistan	2(2-0)
ENG -502	Expository Writing	3(3-0)
QRE -502	Quantitative Reasoning -II	3(3-0)
CCE -501	Civics & Community Engagement	2(2-0)
PKS -501	Pakistan Studies	2(2-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
FST -503	Food Processing and Preservation	2(2-0)
FST -503 -P	Food Processing and Preservation LAB	1(0-1)
FST -504	Food Microbiology	2(2-0)
FST -504 -P	Food Microbiology LAB	1(0-1)
FST -505	Food Chemistry	3(3-0)
PSY -501	Introduction to Psychology	2(2-0)
FST -506	Technology of Fats and Oils	2(2-0)
FST -506 -P	Technology of Fats and Oils LAB	1(0-1)
FST -507	Dairy Technology	2(2-0)
FST -507 -P	Dairy Technology LAB	1(0-1)
SEMESTER 4		
Course Code	Course Title	Credit Hour
FST -508	Fruits and Vegetable Processing	2(2-0)
FST -508 -P	Fruit and Vegetable Processing LAB	1(0-1)
ENT -501	Entrepreneurship	2(2-0)
FST -509	Bakery Product Technology	2(2-0)
FST -509 -P	Bakery Product Technology LAB	1(0-1)
FST -510	Food Analysis	2(2-0)
FST -510 -P	Food Analysis LAB	1(0-1)
FST -511	Sensory Evaluation of Foods	2(2-0)
FST -511 -P	Sensory Evaluation of Foods LAB	1(0-1)
FST -512	Beverage Technology	2(2-0)
FST -512 -P	Beverage Technology LAB	1(0-1)
THQ -501	Teaching of Holy Quran	Non -Credited



SEMESTER 5		
Course Code	Course Title	Credit Hour
BIOT -515	Food Biotechnology	3(3-0)
BCH -501	Introductory Biochemistry	3(3-0)
FST -513	Sugar Technology	3(3-0)
FST -514	Cereal Technology	3(3-0)
FST -515	Food Safety	3(3-0)
FST -516	Food Packaging	3(3-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
BIOCHEM -501	Mineral and Water Metabolism	3(3-0)
FST -517	Community Nutrition	3(3-0)
FST -518	Food Product Development	2(2-0)
FST -518 -P	Food Product Development LAB	1(0-1)
FST -519	Meat Technology	2(2-0)
FST -519 -P	Meat Technology LAB	1(0-1)
FST -520	Food Plant Layout and Sanitation	3(3-0)
FST -521	Scientific Report Writing	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
FST -522	Post -Harvest Technology	3(3-0)
FST -523	Poultry and egg processing	3(3-0)
FST -524	Confectionery and Snack Foods	3(3-0)
FST -525	Unit Operation in Food Processing	3(3-0)
FST -526	Internship	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
FST -527	Sea Food processing Technology	3(3-0)
FST -528	Extrusion Technology	3(3-0)
FST -529	Food Quality Management	3(3-0)
FST -530	Milk and Meat Hygiene and Public Health	3(3-0)
FST -531	Research Project	3(3-0)
FST -532	Food Laws and Regulation	3(3-0)

## BS Food Safety and Quality Management

### Program Summary

Admissions: Fall and Spring  
 Program Duration: 4 years  
 Total Semesters: 8  
 Total Credit Hours: 128

### Career Prospects

- \* Food Safety Manager
- \* Quality Assurance (QA) Manager
- \* Food Auditor/Inspector
- \* Regulatory Affairs Specialist
- \* Food Safety Consultant
- \* Compliance Officer
- \* Food Safety Coordinator
- \* Quality Control Analyst
- \* Supply Chain and Procurement Manager
- \* Food Safety Trainer/Educator



## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
HIST-501	Introduction to History	2(2-0)
FSQM-501	Introduction to Food Science & Quality Management	3(3-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning-I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
FSQM-502	Food Processing & Preservation	2(2-0)
FSQM-502-P	Food Processing & Preservation LAB	1(0-1)
ICT-503	Applications of Information and Communication Technologies	2(2-0)
ICT-503-P	Applications of Information and Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning-II	3(3-0)
CCE-501	Civics & Community Engagement	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
FSQM-503	Pre-Requisites Programs in Food Safety and Quality	3(3-0)
FSQM-504	Risk Assessment and Control Plans	3(3-0)
FSQM-505	Food Safety & Hygiene	3(3-0)
PSY-501	Introduction to Psychology	2(2-0)
MGT-510	Human Resource Management	3(3-0)
BCH-501	Introduction to Biochemistry	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
FSQM-506	Food Chemistry	2(2-0)
FSQM-506-P	Food Chemistry LAB	1(0-1)
FSQM-507	Post-Harvest Technology	2(2-0)
FSQM-507-P	Post-Harvest Technology LAB	1(0-1)
ENT-501	Entrepreneurship	2(2-0)
FSQM-508	Introduction to Food Retail	3(3-0)
SCM-501	Supply Chain Management	3(3-0)
FSQM-509	Food Safety Management Systems	2(2-0)
THQ-501	Teaching of Holy Quran	Non-Credited
SEMESTER 5		
Course Code	Course Title	Credit Hour
FSQM-510	Food Microbiology	2(2-0)
FSQM-510-P	Food Microbiology LAB	1(0-1)
FSQM-511	Pakistan Halal Food Standards (PS3733 -2019)	3(3-0)
FSQM-512	Integrated Pest Management	3(3-0)
FSQM-513	Food Waste Management	2(2-0)
FSQM-513-P	Food Waste Management LAB	1(0-1)
FSQM-514	Occupational and Health Safety Systems	3(3-0)
FSQM-515	Audit and Inspection Techniques	3(3-0)



SEMESTER 6		
Course Code	Course Title	Credit Hour
FSQM-516	Food Packaging	2(2-0)
FSQM-516-P	Food Packaging LAB	1(0-1)
FSQM-517	Introduction to Food Labeling	3(3-0)
FSQM-518	Food Toxins and Allergens	3(3-0)
FSQM-519	Food Analysis and Instrumentation	2(2-0)
FSQM-519-P	Food Analysis and Instrumentation LAB	1(0-1)
MGT-525	Production and Operation Management	3(3-0)
FSQM-520	Halal and Ethnic Food Management	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
FSQM-521	Food Laws and Regulations	3(3-0)
FSQM-522	Global Good Agricultural Practices	3(3-0)
MGT-523	Consumer Behavior	3(3-0)
FSQM-524	Scientific Report writing	3(3-0)
FSQM-525	Internship	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
FSQM-526	Food Plant Layout and Sanitation	3(3-0)
FSQM-527	Food Biotechnology	3(3-0)
FSQM-528	Introduction to Food Fraud Mitigation	3(3-0)
FSQM-529	Research Project	3(3-0)

## BS Environmental Science

### Program Summary

Admissions: Fall and Spring  
 Program Duration: 4 years  
 Total Semesters: 8  
 Total Credit Hours: 137

### Career Prospects

- \* Environmental Consultant
- \* Environmental Scientist
- \* Conservation Biologist
- \* Wildlife Manager
- \* Environmental Policy Analyst
- \* Sustainability Coordinator
- \* Environmental Educator
- \* Water Resource Specialist
- \* Air Quality Specialist
- \* Soil Scientist

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
HIST-501	Introduction to History	2(2-0)
ES-502	Introduction to Earth Sciences	3(3-0)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning-I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ES-503	Fundamentals of Ecology	3(3-0)
ICT-503	Applications of Information and Communication Technologies	2(2-0)
ICT-503-P	Applications of Information and Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
ENG-502	Expository Writing	3(3-0)
QRE-502	Quantitative Reasoning-II	3(3-0)
CCE-101	Civics & Community Engagement	2(2-0)
PKS-501	Pakistan Studies	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
CHEM -503	Basic Chemistry	2(2-0)
CHEM -503 -P	Basic Chemistry LAB	1(0-1)
ES -504	Climatology	3(3-0)
ES -505	Environmental Pollution	3(3-0)
ES -506	Environmental Economics	3(3-0)
PSY -501	Introduction to Psychology	2(2-0)
ES -507	Environmental Profile of Pakistan	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ES -508	Environmental Toxicology	2(2-0)
ES -508 -P	Environmental Toxicology LAB	1(0-1)
MICR -522	Environmental Microbiology	2(2-0)
MICR -522	Environmental Microbiology LAB	1(0-1)
ES -509	Biodiversity & Conservation	3(3-0)
ENT -501	Entrepreneurship	2(2-0)
ES -510	Energy and Environment	2(2-0)
ES -511	Solid Waste Management	3(3-0)
THQ -501	Teaching of Holy Quran	Non -Credited
SEMESTER 5		
Course Code	Course Title	Credit Hour
ES -512	Applied Ecology	2(2-0)
ES -512 -P	Applied Ecology LAB	1(0-1)
ES -513	Population & Environment	3(3-0)
BCH -501	Introductory Biochemistry	3(3-0)
ES -514	Analytical Techniques in Environmental Science	1(1-0)
ES -514 -P	Analytical Techniques in Environmental Science LAB	2(0-2)
ES -515	Public Health & Environment	3(3-0)
ES -516	Pollution Control Technologies	3(3-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
ES -517	Environmental Biotechnology	2(2-0)
ES -517 -P	Environmental Biotechnology LAB	1(0-1)
ES -518	GIS & Remote Sensing	2(2-0)
ES -518 -P	GIS & Remote Sensing LAB	1(0-1)
ES -519	Environmental Management	3(3-0)
ES -520	Environmental Governance	3(3-0)
ES -521	Environmental Monitoring	2(2-0)
ES -521 -P	Environmental Monitoring LAB	1(0-1)
ES -522	Water Resources Management	3(3-0)



SEMESTER 7		
Course Code	Course Title	Credit Hour
ES-523	Agro-Ecology	3(3-0)
ES-524	Basics of Environmental Impact Assessment	3(3-0)
ES-525	Natural Resource Management	3(3-0)
ES-526	Research Methods in Environmental Science	3(3-0)
ES-527	Climate Change	3(3-0)
ES-528	Internship	3 (3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
ES-529	Environmental Laws & Policies	3(3-0)
ES-530	Occupational Health and Safety	3(3-0)
ES-531	Urban Environmental Management	2(2-0)
ES-531-P	Urban Environmental Management LAB	1(0-1)
ES-532	Air and Noise Pollution	3(3-0)
ES-533	Disaster Risk Management	3(3-0)
ES-534	Research Project	3(3-0)

## Post Graduate Diploma in Halal Industry

### Program Summary

Admissions: Fall and Spring  
 Program Duration: 1 year  
 Timing: Weekend Classes  
 Total Credit Hours: 24

### Career Prospects

- \* Halal Compliance Assistant
- \* Halal Certification Assistant
- \* Quality Control Technician
- \* Halal Supply Chain Assistant
- \* Halal Product Sales Representative
- \* Halal Food Production Operator

## SCHEME OF STUDIES

SEMESTER 1		
Course code	Course Title	Credit Hour
HI-701	Halal and Haram in the Light of Quran and Sunnah	3(3-0)
HI-702	Food Safety and Hygiene	3(3-0)
HI-703	Animal Slaughtering	3(3-0)
HI-704	Food Ingredients and Control	3(3-0)
SEMESTER 2		
Course code	Course Title	Credit Hour
HI-705	Global Halal Market , Issues, Standards and Opportunities	3(3-0)
HI-706	Pakistan Halal Food Standard (PS 3733 -2019)	3(3-0)
HI-707	Industry based case study	3(3-0)
HI-708	Halal Financing, Textiles and Cosmetics	3(3-0)





## FACULTY OF SCIENCES

### Department of Physics

#### Introduction

Department of Physics is one of the rapidly growing departments in GAUS. Our well-known and experienced Faculty members are devoted to provide students with the platform where hard work, dedication and willingness to learn can make them outclass. With the ultimate goal to strive for expanding and strengthening opportunities. Traditional classroom experiences besides hands-on skills in the laboratory and research under supervision of devoted and dedicated faculty members make them trained in professional fields. The department is offering ADP, BS and MPhil programs and endeavoring hard to provide high-quality education and innovative research in physics that advances scientific understanding and addresses real-world challenges. We are committed to cultivating an inclusive learning environment, supporting the professional growth of students and faculty, and contributing to scientific progress through collaboration and discovery.

#### Objectives

The core objectives of this department are:

- to build up expertise among the students to match the national level required education & research and become national leader in producing highly professional and motivated Physicist.
- to preparing undergraduate and graduates for advanced studies
- to develop hands-on experience in different laboratory techniques and modern instrumentation.
- to equip students with the necessary skill set for pursuing careers in physics education.
- to research and industry in government or private organization.

#### Programs Being Offered

- ADP Physics
- BS Physics
- MS Physics



## Message From HOD



The Department of Physics at Grand Asian University, Sialkot, is one of the fastest-growing departments, committed to fostering a robust learning environment where students can thrive academically, professionally, and personally.

The department's primary goal is to expand and strengthen opportunities for physics students, ensuring they receive a well-rounded education that prepare them for the challenges of the modern world. Alongside traditional classroom experiences, we emphasize the development of hands-on skills in the laboratory and offer students the chance to engage in research projects under the mentorship of our devoted faculty. This combination of theoretical knowledge and practical experience makes our students experts in their field and equips them with the skills necessary to tackle complex real-world problems.

Our faculty members are deeply committed to cutting-edge experimental and theoretical research, collaborating with various renowned institutes across Pakistan. This collaboration not only enriches the research environment but also provides students with valuable exposure to innovative work in physics, encouraging them to engage in high-level scientific inquiry. Additionally, we place great emphasis on the moral and ethical development of our students, aiming to nurture not only their scientific expertise but also their sense of responsibility as future leaders and good citizens.

At the Department of Physics, we are confident that our students will emerge as highly skilled, ethical, and well-rounded professionals, ready to make meaningful contributions in both the scientific community and society at larger scale.

**Dr. Fasih-Ud-Din**  
PhD Physics



## ADP Physics

### Program Summary

Admission	Fall and Spring
Duration	2 years
Number of Semesters	4
Total Credit Hours	66

### Career Prospects

- Colleges and Higher Educational Institutions
- National Research & Development Organizations such as PICRET, PNRA, KRL, NESCOM, PAEC, PINSTECH, KANUP, PIEAS, NELOP etc.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
PSY-501	Introduction to Psychology	2(2-0)
MTH-520	Calculus and Analytical Geometry	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies Lab	1(0-1)
QRE-501	Quantitative Reasoning-I	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
QRE-502	Quantitative Reasoning-II	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)
PHY-501	Mechanics-1	2(2-0)
PHY-501-P	Mechanics-1 Lab	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
MTH-526	Multivariable Calculus	3(3-0)
ENG-503	Creative Writing	2(2-0)
PHY-502	Waves and Oscillations	2(2-0)
PHY-502-P	Waves and Oscillations Lab	1(0-1)
PHY-503	Electricity and Magnetism-I	3(3-0)
CHEM-510	Introductory Chemistry	3(3-0)
PHY-504	Mechanics-II	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
PHY-505	Electricity and Magnetism-II	3(3-0)
MTH-514	Differential Equations and Applications	3(3-0)
PHY-506	Computing Tools for Physicists	3(3-0)
PHY-507	Heat and Thermodynamics	3(3-0)
PHY-508	Modern Physics	2(2-0)
PHY-508-P	Modern Physics Lab	1(0-1)
MTH-521	Discrete Mathematics	3(3-0)
THQ-501	Teaching of Holy Quran	Non-credit



## BS Physics

### Program Summary

Admission	Fall and Spring
Duration	4 years
Number of Semesters	8
Total Credit Hours	130

### Career Prospects

- Colleges and Higher Educational Institutions
- National Research & Development Organizations such as PICRET, PNRA, KRL, NESCOM, PAEC, PINSTECH, KANUP, PIEAS, NELOP etc.

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
PSY-501	Introduction to Psychology	2(2-0)
MTH-520	Calculus and Analytical Geometry	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
QRE-501	Quantitative Reasoning-I	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
QRE-502	Quantitative Reasoning-II	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)
PHY-501	Mechanics-I	2(2-0)
PHY-501-P	Mechanics-I LAB	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
MTH-526	Multivariable Calculus	3(3-0)
ENG-503	Creative Writing	2(2-0)
PHY-502	Waves and Oscillations	2(2-0)
PHY-502-P	Waves and Oscillations LAB	1(0-1)
PHY-503	Electricity and Magnetism-I	3(3-0)
CHEM-510	Introductory Chemistry	3(3-0)
PHY-504	Mechanics-II	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
PHY-505	Electricity and Magnetism-II	3(3-0)
MTH-514	Differential Equations and Applications	3(3-0)
PHY-506	Computing Tools for Physicists	3(3-0)
PHY-507	Heat and Thermodynamics	3(3-0)
PHY-508	Modern Physics	2(2-0)
PHY-508-P	Modern Physics LAB	1(0-1)
MTH-521	Discrete Mathematics	3(3-0)
THQ-501	Teaching of Holy Quran	Non-credit



SEMESTER 5		
Course Code	Course Title	Credit Hour
PHY-601	Methods of Mathematical PhysicsI	3(3-0)
PHY-603	Classical Mechanics	3(3-0)
PHY-605	Electrodynamics-I	3(3-0)
PHY-607	Electronics	3(3-0)
PHY-611	Lab Course (Electromagnetism)	3(3-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
PHY-602	Methods of Mathematical PhysicsII	3(3-0)
PHY-604	Quantum Mechanics-I	3(3-0)
PHY-606	Nuclear Physics	3(3-0)
PHY-608	Electrodynamics-II	3(3-0)
PHY-612	Lab Course (Atomic & NuclearPhysics)	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
PHY-613	Quantum Mechanics-II	3(3-0)
PHY-615	Plasma Physics	3(3-0)
PHY-617	Solid State Physics-I	3(3-0)
PHY-619	Particle Physics-I*	3(3-0)
PHY-621	Advanced Electronics*	3(3-0)
PHY-623	Environmental Physics-I*	3(3-0)
PHY-625	Health and Medical Physics-I*	3(3-0)
PHY-627	Climatology and Metrology-I*	3(3-0)
PHY-629	Lab Course (Electronics)	3(3-0)
	Translation of holy Quran	0
SEMESTER 8		
Course Code	Course Title	Credit Hour
PHY-614	Computational Physics	3(3-0)
PHY-616	Solid State Physics-II	3(3-0)
PHY-618	Laser and Optics	3(3-0)
PHY-620	Statistical Mechanics	3(3-0)
PHY-622	Particle Physics-II*	3(3-0)
PHY-624	Advanced Electronics Lab Course*	3(3-0)
PHY-626	Environmental Physics Lab Course*	3(3-0)
PHY-628	Health and Medical Physics-II*	3(3-0)
PHY-630	Climatology and Metrology-II*	3(3-0)
PHY-632	Thesis**	6(6-0)
PHY-634	Project***	

**Note:**

\* One optional subject to be chosen in 7<sup>th</sup> and 8<sup>th</sup> semester.

\*\* Thesis will be allotted in the 7<sup>th</sup> semester. However, the credit hours for thesis will only count towards the 8<sup>th</sup> semesters.

\*\*\* Projects/Report may be opted in lieu of option-II of the subject already taken by the student in 7<sup>th</sup> semester.



## MPhil Physics

### Program Summary

Admissions: Fall  
 Program Duration: 2 years  
 Total Semesters: 4  
 Total Credit Hours: 30

### Career Prospects

- Colleges and Higher Educational Institutions
- National Research & Development Organizations such as PICRET, PNRA, KRL, NESCOM, PAEC, PINSTECH, KANUP, PIEAS, NELOP etc.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
PHY-701	Mathematical Methods of Physics	3(3-0)
PHY-702	Classical Mechanics	3(3-0)
PHY-703	Quantum Mechanics	3(3-0)
PHY-704	Electrodynamics	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
PHY-705	Statistical Physics	3(3-0)
PHY-7xxx	Graduate Level Physics Course (Elective I)	3(3-0)
PHY-7xxx	Graduate Level Physics Course (Elective II)	3(3-0)
PHY-7xxx	Graduate Level Physics Course (Elective III)	3(3-0)
SEMESTERS 3&4		
Course Code	Course Title	Credit Hour
PHY-7xxx	Graduate Level Physics Course (Elective IV)	3(3-0)
PHY-7xxx	Graduate Level Physics Course (Elective V)	3(3-0)
OR		
PHY-733	Thesis & Research (Graduate Level)	6(0-6)



## Elective Courses

Course Code	Course Title	Credit Hour
PHY-701	Mathematical Methods of Physics	3(3-0)
PHY-702	Classical Mechanics	3(3-0)
PHY-703	Quantum Mechanics	3(3-0)
PHY-704	Electrodynamics	3(3-0)
PHY-705	Statistical Physics	3(3-0)
PHY-706	Materials Science	3(3-0)
PHY-707	Nanoscale Physics	3(3-0)
PHY-708	Semiconductor Devices	3(3-0)
PHY-709	Materials Synthesis and Characterization	3(3-0)
PHY-710	Dielectric Physics	3(3-0)
PHY-711	Surface Physics	3(3-0)
PHY-712	Functional Materials and Devices	3(3-0)
PHY-713	Electrochemistry and Electrocatalysis	3(3-0)
PHY-714	Piezoelectric Materials and Devices	3(3-0)
PHY-715	Physics of Thin Film	3(3-0)
PHY-716	Advanced Scintillation Materials	3(3-0)
PHY-717	Advance Laser Optics	3(3-0)
PHY-718	Optoelectronics and Photonics	3(3-0)
PHY-719	Particle Physics	3(3-0)
PHY-720	Quantum Field Theory	3(3-0)
PHY-721	Group Theory	3(3-0)
PHY-722	Heavy Ion Physics	3(3-0)
PHY-723	Radiation Detection& Measurement	3(3-0)
PHY-724	Advanced Magnetic Resonance Imaging	3(3-0)
PHY-725	Spectroscopy	3(3-0)
PHY-726	Superconductivity	3(3-0)
PHY-727	Plasma Physics	3(3-0)
PHY-728	Optical Properties of Solids	3(3-0)
PHY-729	Magnetism in Condensed Matters	3(3-0)
PHY-730	Advanced Nuclear Physics	3(3-0)
PHY-731	General Relativity& Cosmology	3(3-0)
PHY-732	Advanced Computational Physics	3(3-0)



## FACULTY OF SCIENCES

### Department of Chemistry

#### Introduction

The department of chemistry was established in 2023. Chemistry is the study of matter and its transformations, providing a foundation for understanding molecules, nanostructures, and larger solids, along with their properties, reactions, and practical applications. This dynamic field is essential to numerous modern scientific and technological advances, particularly in interdisciplinary areas such as molecular genetics, nanotechnology, medicinal chemistry, drug development, and sustainable chemistry.

At GAUS, our Chemistry Department fosters a collaborative community committed to excellence in education, hands-on learning, and cutting-edge research opportunities. Our faculty brings a rich diversity of academic backgrounds, professional experiences, and research interests, which energizes our department. Covering all major fields of chemistry, analytical, inorganic, organic, physical, and applied chemistry the expertise of our faculty spans a wide range of specialties. Our curriculum is thoughtfully crafted with the Sustainable Development Goals in mind, ensuring that students receive comprehensive training in their chosen areas. Faculty members are dedicated to equipping students with the skills needed to collaborate effectively in research teams and contribute to achieving sustainability objectives.

#### Objectives

The core objectives of this department are:

- to develop outstanding professionals and academicians for the industry and the academic world.
- to develop problem-solving skills, presentation skills in the scientific world.
- to provide opportunities for advance research training in both the theoretical and experimental Chemistry.
- to establish research collaboration with a number of well reputed national and international research centers, laboratories and chemical industries.

#### Programs Being Offered

- BS Chemistry
- MS Chemistry



## Message From HOD



The Department of Chemistry at Grand Asian University, Sialkot, was established in 2023 with the goal of fostering a collaborative and dynamic environment dedicated to excellence in education, hands-on learning, and cutting-edge research. We are committed to becoming a globally recognized leader in chemistry education and research, focusing on innovation, industrialization, entrepreneurship, commercialization, and sustainability. Our department aspires to uphold the highest academic and professional standards, while fostering personal growth and fulfillment for both our staff and students. We aim to provide a nurturing environment that encourages continuous improvement and excellence in all our endeavors.

This department brings a wealth of academic expertise, professional experience, and diverse research interests, which energize and enrich our learning environment. Covering all major fields of chemistry-including analytical, inorganic, organic, physical, and applied chemistry the breadth and depth of our faculty's specialties ensure that students receive a comprehensive and well-rounded education. Our curriculum is carefully designed by keeping the intricacies of Sustainable Development Goals (SDGs) and equipping students with the skills and knowledge necessary to tackle global challenges. We prioritize training students to work effectively in research teams, with a particular focus on contributing to sustainability objectives. Our department is committed to providing exceptional support, state-of-the-art facilities, and a rewarding learning environment that fosters both academic success and professional development.

**Dr. Mazloom Shah**  
PhD and Postdoc Chemistry





# BS Chemistry

Program Summary  
Admission: Fall and Spring  
Duration: 4-6 years  
Number of Semesters: 8-12  
Total Credit Hours 131

## Career Prospects

- \* Chemical industry, Paper industry, Cement industry, Glass industry, Food industry, Agriculture industry and Pharmaceutical industry.
- \* Designing and properties of materials involved in energy and information technology
- \* Analyzing and model real world problems based on chemistry as well as other scientific principles and to solve such problems by utilizing their skills and tools.
- \* In nuclear energy reactor as a junior scientist, experts in solar energy, wind energy and hydropower plants.
- \* Pharmaceutical and Medical Laboratories
- \* PAEC Cancer hospitals as well as other medical institutes
- \* Teaching opportunities in schools, colleges and universities

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
CHEM-501	Inorganic Chemistry-I	3(3-0)
CHEM-501-P	Inorganic Chemistry-I LAB	1(0-1)
PSY-500	Introduction to Psychology	2(2-0)
QRE-501	Quantitative Reasoning (Mathematics-I)	3(3-0)
ISL-501/ETH-501	Islamic Studies/ Religious Education/ Ethics in lieu of Islamic Studies only for non-Muslim students	2(2-0)
ENG-501	Functional English (English-I)	3(3-0)
BTH-501	Introduction to Biotechnology	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
CHEM-502	Organic Chemistry-I	3(3-0)
CHEM-502-P	Organic Chemistry-I LAB	1(0-1)
PHY-509	General Physics	2(2-0)
PHY-509-P	General Physics LAB	1(0-1)
CCE-501	Civics and Community Engagement	2(2-0)
QRE-502	Quantitative Reasoning (Mathematics- II)	3(3-0)
ENG-502	Expository Writing (English-II)	3(3-0)
ICT-501	Applications of Information and Communication Technologies (ICT) (Computer Applications)	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies (ICT) (Computer Applications) LAB	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CHEM-503	Physical Chemistry-I	3(3-0)
CHEM-503-P	Physical Chemistry-I LAB	1(0-1)
CHEM-504	Fuel Chemistry	3(3-0)
CHEM-504-P	Fuel Chemistry LAB	1(0-1)
ENT-501	Entrepreneurship	2(2-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
CHEM-505	Environmental Chemistry	3(3-0)
CHEM-506	Nutritional Chemistry	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
CHEM-507	Biochemistry	2(2-0)
CHEM-507-P	Biochemistry LAB	1(0-1)
CHEM-508	Analytical Chemistry-I	3(3-0)
CHEM-508-P	Analytical Chemistry-I LAB	1(0-1)
ZOO-510	Cell Biology, Genetics and Evolution/Interdisciplinary	2(2-0)
ZOO-510-P	Cell Biology, Genetics and Evolution/Interdisciplinary LAB	1(0-1)
BOT-509	Plant Physiology and Ecology/ Interdisciplinary	2(2-0)
BOT-509-P	Plant Physiology and Ecology/ Interdisciplinary LAB	1(0-1)
CHEM-509	Industrial Chemistry	2(2-0)
HIST-501	History	2(2-0)



SEMESTER 5		
Course Code	Course Title	Credit Hour
CHEM -601	Inorganic Chemistry -II	3(3-0)
CHEM -601-P	Inorganic Chemistry -II LAB	1(0-1)
CHEM -602	Organic Chemistry -II	3(3-0)
CHEM -602-P	Organic Chemistry -II LAB	1(0-1)
CHEM -603	Physical Chemistry -II	3(3-0)
CHEM -603-P	Physical Chemistry -II LAB	1(0-1)
CHEM -604	Analytical Chemistry -II	3(3-0)
CHEM -604-P	Analytical Chemistry -II LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
CHEM -605	Inorganic Chemistry -III	3(3-0)
CHEM -605-P	Inorganic Chemistry -III LAB	1(0-1)
CHEM -606	Organic Chemistry -III	3(3-0)
CHEM -606-P	Organic Chemistry -III LAB	1(0-1)
CHEM -607	Physical Chemistry -III	3(3-0)
CHEM -607-P	Physical Chemistry -III LAB	1(0-1)
BTH-608	Bionanotechnology	3(3-0)
SEMESTER 7 (Specialization in Inorganic Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -608	Coordination Chemistry	3(3-0)
CHEM -609	Pi- acceptor ligands and Inorganic Polymers	3(3-0)
CHEM -610	Inorganic Spectroscopy	3(3-0)
CHEM -611	Instrumental Methods	3(3-0)
CHEM -612	Inorganic Reaction Mechanism	3(3-0)
CHEM -613	Advance Separation Techniques	3(3-0)
CHEM -614	Field Experience / Internship	3(0-3)
Offer any four courses other than field experience		
SEMESTER 7 (Specialization in Organic Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -615	Heterocyclic & Organometallic Compounds	3(3-0)
CHEM -616	Fundamentals of Organometallic Compounds	3(3-0)
CHEM -617	Reactive Intermediates	3(3-0)
CHEM -618	Organic reaction Mechanism -I	3(3-0)
CHEM -619	Organic Spectroscopy -I	3(3-0)
CHEM -614	Field Experience / Internship	3(0-3)
Offer any four courses other than field experience		
SEMESTER 7 (Specialization in Physical Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -620	Electrochemistry & Statistical Thermodynamics	3(3-0)
CHEM -621	Polymer Chemistry	3(3-0)
CHEM -622	Quantum Chemistry & Molecular Spectroscopy	3(3-0)
CHEM -623	Surface chemistry	3(3-0)
CHEM -624	Solution Chemistry	3(3-0)
CHEM -614	Field Experience / Internship	3(0-3)
Offer any four courses other than field experience		



SEMESTER 8 (Specialization in Inorganic Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -625	Organometallics Chemistry	3(3-0)
CHEM -626	Symmetry and Magnetochemistry	3(3-0)
CHEM -627	Radio & Nuclear chemistry	3(3-0)
CHEM -628	Research Methodology	3(3-0)
CHEM -629	Elementary Group Theory	3(3-0)
CHEM -630	Alternate Energy Resources	3(3-0)
CHEM -631	Capstone Project	3(0-3)
Offer any four courses other than Capstone project		
SEMESTER 8 (Specialization in Organic Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -632	Natural Products	3(3-0)
CHEM -633	Organic Synthesis	3(3-0)
CHEM -634	Medicinal Chemistry	3(3-0)
CHEM -635	Organic Reaction Mechanism -II	3(3-0)
CHEM -636	Organic Spectroscopy -II	3(3-0)
CHEM -628	Research Methodology	3(3-0)
CHEM -631	Capstone project	3(0-3)
Offer any four courses other than Capstone project		
SEMESTER 8 (Specialization in Physical Chemistry)		
Course Code	Course Title	Credit Hour
CHEM -637	Chemical Kinetics	3(3-0)
CHEM -638	Reaction Dynamics	3(3-0)
CHEM -639	Radiation & Photochemistry	3(3-0)
CHEM -640	Nuclear Chemistry	3(3-0)
CHEM -641	Colloids & Surface Chemistry	3(3-0)
CHEM -628	Research Methodology	3(3-0)
CHEM -631	Capstone project	3(0-3)
Offer any four courses other than Capstone project		

## MS Chemistry

Program Summary  
Duration: 2-3 years  
Number of Semesters: 4-6  
Total Credit Hours 30

### Career Prospects

- \* Chemical industry, Paper industry, Cement industry, Glass industry, Food industry, Agriculture industry and Pharmaceutical industry.
- \* Designing and properties of materials involved in energy and information technology
- \* Analyzing and model real world problems based on chemistry as well as other scientific principles and to solve such problems by utilizing their skills and tools.
- \* In nuclear energy reactor as a junior scientist, experts in solar energy, wind energy and hydropower plants.
- \* Pharmaceutical and Medical Laboratories
- \* PAEC Cancer hospitals as well as other medical institutes
- \* Teaching opportunities in schools, colleges and universities



## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
CHEM-70X	Graduate level Chemistry Course I	3(3-0)
CHEM-70X	Graduate level Chemistry Course II	3(3-0)
CHEM-70X	Graduate level Chemistry Course III	3(3-0)
CHEM-70X	Graduate level Chemistry Course IV	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
CHEM-70X	Graduate level Chemistry Course V	3(3-0)
CHEM-70X	Graduate level Chemistry Course VI	3(3-0)
CHEM-70X	Graduate level Chemistry Course VII	3(3-0)
CHEM-70X	Graduate level Chemistry Course VIII	3(3-0)
SEMESTER 3 & 4		
Course Code	Course Title	Credit Hour
CHEM-763	Research & Thesis	6(0-6)

Note: Department of Chemistry shall have to offer courses of 24 credit hours out of the following list. New courses may also be designed according to the expertise available.

General Courses		
Course Code	Course Title	Credit Hour
CHEM-701	Research Methodologies	3(3-0)
CHEM-707	Chemical Education	3(3-0)
CHEM-708	Computational Chemistry	3(3-0)
CHEM-709	Statistical Data Handling and Mathematics	3(3-0)
CHEM-710	Assessment in Higher Education	3(3-0)
CHEM-711	Forensic Chemistry	3(3-0)
Courses of Inorganic/Analytical Chemistry		
Course Code	Course Title	Credit Hour
CHEM-702	Advanced Spectroscopic Techniques	3(3-0)
CHEM-703	Solid State Chemistry	3(3-0)
CHEM-704	Chemistry of Organometallics	3(3-0)
CHEM-705	Advanced Chromatographic Techniques	3(3-0)
CHEM-706	Inorganic electronic spectroscopy	3(3-0)
CHEM-712	Kinetics and Mechanisms of Inorganic Reactions	3(3-0)
CHEM-713	Bioanalytical Chemistry	3(3-0)
CHEM-714	Metal-based drugs	3(3-0)
CHEM-715	Nanochemistry	3(3-0)
CHEM-716	Green Chemistry Techniques	3(3-0)
CHEM-717	Thermal Analysis	3(3-0)
CHEM-718	Validation of Analytical Methods	3(3-0)
CHEM-719	Nuclear medicine	3(3-0)
CHEM-720	Food, pharmaceutical and Forensic analysis	3(3-0)
CHEM-721	Advanced Electroanalytical Techniques	3(3-0)
CHEM-722	Inorganic Material Chemistry	3(3-0)
CHEM-723	Characterization of Natural Antioxidants and Essential Oils	3(3-0)



Courses of Organic Chemistry		
CHEM-724	Natural Products Chemistry	3(3-0)
CHEM-725	Synthetic Applications of Named Reactions	3(3-0)
CHEM-726	Advanced Spectroscopy	3(3-0)
CHEM-727	Advanced Heterocyclic Chemistry	3(3-0)
CHEM-728	Organic Polymer Chemistry	3(3-0)
CHEM-729	Pharmaceutical Chemistry	3(3-0)
CHEM-730	Supramolecular Chemistry	3(3-0)
CHEM-731	Phytochemical Techniques	3(3-0)
CHEM-732	Modern Trends in Asymmetric Synthesis	3(3-0)
CHEM-733	Advanced Stereochemistry	3(3-0)
CHEM-734	Pericyclic Chemistry	3(3-0)
CHEM-735	Organic Compounds containing S, P & Si	3(3-0)
CHEM-736	Dyes and Pigments	3(3-0)
CHEM-737	Physical Organic Chemistry	3(3-0)
Courses of Physical Chemistry		
Course Code	Course Title	Credit Hour
CHEM-738	Polymers and Advanced Composite Materials	3(3-0)
CHEM-739	Advanced Quantum Chemistry	3(3-0)
CHEM-740	Advanced Photochemistry and Radiation Chemistry	3(3-0)
CHEM-741	Advanced Electrochemistry	3(3-0)
CHEM-742	Surface Chemistry	3(3-0)
CHEM-743	Advanced Statistical Thermodynamics	3(3-0)
CHEM-744	Biophysical Chemistry	3(3-0)
CHEM-745	Chemistry of Atmosphere	3(3-0)
CHEM-746	Advanced Solid State Chemistry and Characterization Techniques	3(3-0)
CHEM-747	Advanced Reactions Dynamics	3(3-0)
CHEM-748	Nanomaterials	3(3-0)
CHEM-749	Magnetic Spin Dynamics	3(3-0)
CHEM-750	Applied Nuclear Chemistry	3(3-0)
Courses of Applied Chemistry		
Course Code	Course Title	Credit Hour
CHEM-751	Environmental Impact of Chemical Industries	3(3-0)
CHEM-752	Nanomaterials and their applications	3(3-0)
CHEM-753	Chemistry of Dyes and Pigments	3(3-0)
CHEM-754	Pharmaceutical Chemistry	3(3-0)
CHEM-755	Advanced Polymer Chemistry	3(3-0)
CHEM-756	Agrochemicals	3(3-0)
CHEM-757	Physical Structure of Porous Materials	3(3-0)



## FACULTY OF SCIENCES

### Department of Mathematics

#### Introduction

The importance of Mathematics is due to its increasing effectiveness in step with the new developments in sciences. The challenges of staying updated are absolutely essential. We are living in an era where digital system has become an integral part of our daily day life. Beyond the imagination and speculation, one can't comprehend the concepts in Engineering Sciences, Physics, Computer Sciences, Management Sciences and Social Sciences without Mathematics. The Department of Mathematics at GAUS was launched with the aim of preparing students and researchers in Mathematics with a width of knowledge of the other sciences and technologies. The department offers BS Mathematics, MS Mathematics and PhD Mathematics programs.

We have faculty members who are actively working in broad range of areas in pure applied and computational mathematics with high standards of research. The main purpose of this department is to strive to create a vibrant academic environment that nurtures critical thinking and problem-solving skills in mathematics and equip students with the knowledge and expertise to apply their mathematical skills across a variety of interdisciplinary domains, preparing them to tackle real-world challenges with confidence and creativity.

#### Objectives

The core objectives of this department are:

- to provide students with an in-depth understanding of advanced mathematical theories and concepts.
- cultivate exceptional problem-solving skills in students through rigorous coursework, seminars, and research projects.
- to encourage students to contribute to mathematical literature by publishing research findings in reputable journals, presenting papers at conferences, and collaborating with other researchers in the field.
- to engage students in collaboration with fellow researchers, both within their institution and in the broader mathematical community.
- to develop essential professional skills in students that include critical thinking, time management, project planning, data analysis, presentation skills, and scientific writing.

#### Programs Being Offered

- ADP Mathematics
- BS Mathematics
- MS Mathematics
- PhD Mathematics



## Message From HOD



Mathematics plays an increasingly central role in the advancement of science and technology, making it one of the most important fields of study today. As we witness rapid developments in various scientific disciplines, the relevance of mathematics grows in tandem. In our modern world, where digital systems are integrated into every aspect of our daily lives, the concepts behind Engineering Sciences, Physics, Computer Sciences, Management Sciences, and even Social Sciences would be unimaginable without the foundation provided by mathematics. It is the backbone that drives innovation, enabling us to understand and solve complex problems.

The Department of Mathematics at Grand Asian University, Sialkot, was established with the vision of preparing students and researchers who possess a deep understanding of mathematics as well as its applications across various domains.

We offer a comprehensive range of programs, including ADP, BS, MS and PhD in Mathematics, each designed to provide students with a solid foundation in both the fundamental and advanced aspects of the subject.

Our esteemed faculty members, who are experts in a wide range of mathematical disciplines, are committed to upholding the highest standards of teaching and research. They actively engage in research in areas such as pure, applied, and computational mathematics, ensuring that our students are exposed to the latest developments and discoveries. The department fosters a dynamic environment for mathematical research and collaboration, connecting scholars and researchers from around the globe.

At GAUS, we are dedicated to shaping the next generation of mathematicians, researchers, and professionals who will lead the way in solving the most pressing challenges of the future.

**Prof. Dr. Akbar Azam**  
PhD Mathematics

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



# ADP & BS Mathematics

## Program Summary

Admissions: Fall and Spring

Program Duration: 2 & 4 years

Total Semesters: 4 & 8

Total Credit Hours: 66 & 126

## Career Prospectus

- \* Research and Development Organizations
- \* Economic Research Firms
- \* Market Research and Manufacturing Organizations
- \* Teaching Opportunities in Schools, Colleges and Universities
- \* Accountant, Actuary, Statistician, Economist and Market Researcher
- \* Quantitative Risk Analyst, Treasury Management Specialist and Demographer
- \* Defense Research and Development Organizations
- \* Pakistan Space Research Organizations
- \* Reputed Software Companies
- \* Banks and Insurance Companies
- \* Provincial Public Services and Federal Public Services

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MTH-501	Calculus-I	3(3-0)
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information and Communication Technologies	2(2-0)
ICT-501-P	Applications of Information and Communication Technologies LAB	1(0-1)
QRE-501	Quantitative Reasoning -I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MTH-502	Calculus-II	3(3-0)
ENG-502	Expository Writing	3(3-0)
CCE-501	Civics and Community Engagement	2(2-0)
QRE-502	Quantitative Reasoning -II	3(3-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
PHY-513	Fundamental Physics	3(3-0)
MTH-506	Programming Languages for Mathematicians	3(3-0)
ENG-503	Creative writing	2(2-0)
MTH-503	Calculus-III	3(3-0)
MTH-529	Classical Mechanics	3(3-0)
STS-501	Probability Distribution -I	3(3-0)



SEMESTER 4		
Course Code	Course Title	Credit Hour
MTH -524	Number Theory	3(3-0)
PHY -505	Heat and Thermodynamics	3(3-0)
MTH -513	Computing Tools for Mathematicians	3(3-0)
MTH -528	Linear Algebra -I	3(3-0)
MTH -521	Discrete Mathematics	3(3-0)
STS -502	Probability Distribution -II	3(3-0)
THQ -501	Teaching of Holy Quran	Non -Credit
SEMESTER 5		
Course Code	Course Title	Credit Hour
MTH -602	Real Analysis -I	3(3-0)
MTH -640	Differential Geometry -I	3(3-0)
MTH -622	Complex Analysis	3(3-0)
MTH -651	Numerical Analysis -I	3(3-0)
MTH -601	Linear Algebra -II	3(3-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
MTH -630	Group Theory	3(3-0)
MTH -603	Real Analysis -II	3(3-0)
MTH -607	Ordinary Differential Equations	3(3-0)
MTH -641	Differential Geometry -II	3(3-0)
MTH -652	Numerical Analysis -II	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
MTH -627	Functional Analysis	3(3-0)
MTH -613	Partial Differential Equations	3(3-0)
MTH -611	Vector and Tensor Analysis	3(3-0)
MTH -628	Set Topology	3(3-0)
MTH -6xx	Specialization Course I /MTH -499	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
MTH -634	Measure Theory	3(3-0)
MTH -643	Integral Equations	3(3-0)
MTH -615	Methods of Mathematical Physics	3(3-0)
MTH -631	Rings and Fields	3(3-0)
MTH -6xx	Specialization Course II /MTH -499	3(3-0)



## MS Mathematics

### Program Summary

Admissions: Fall and Spring

Program Duration: 2 years

Total Semesters: 4

Total Credit Hours: 30

### Career Prospectus

- \* Research and Development Organizations
- \* Economic Research Firms
- \* Market Research and Manufacturing Organizations
- \* Teaching Opportunities in Schools, Colleges and Universities
- \* Accountant, Actuary, Statistician, Economist and Market Researcher
- \* Quantitative Risk Analyst, Treasury Management Specialist and Demographer
- \* Defense Research and Development Organizations
- \* Pakistan Space Research Organizations
- \* Reputed Software Companies
- \* Banks and Insurance Companies
- \* Provincial Public Services and Federal Public Services

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MTH-701	Advanced Integral Equations and Applications	3(3-0)
MTH-702	Advanced Functional Analysis	3(3-0)
MTH-xxx	Elective I	3(3-0)
MTH-xxx	Elective II	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MTH-xxx	Elective III	3(3-0)
MTH-xxx	Elective IV	3(3-0)
MTH-704	Fixed Point Theory and Applications	3(3-0)
MTH-709	Advanced Partial Differential Equations	3(3-0)
SEMESTER S 3 & 4		
Course Code	Course Title	Credit Hour
MTH-774	Research and Thesis	6(6-0)

## Elective Courses

Course Code	Course Title	Credit Hour
MTH-701	Advanced Integral Equations and Applications	3(3-0)
MTH-702	Advanced Functional Analysis	3(3-0)
MTH-703	Advanced Mathematical Physics	3(3-0)
MTH-704	Fixed Point Theory and Applications	3(3-0)
MTH-735	Theory of Groups	3(3-0)
MTH-736	Representation Theory of Finite Groups	3(3-0)
MTH-737	Field Extensions and Galois Theory	3(3-0)
MTH-738	Advanced Topology II	3(3-0)
MTH-740	Differential Subordinations and Applications	3(3-0)



MTH-741	Convolutions in Geometric Function Theory	3(3-0)
MTH-742	Semigroup Theory	3(3-0)
MTH-743	Further Algebraic Geometry	3(3-0)
MTH-744	Lattice Boltzmann Transport Method	3(3-0)
MTH-746	Homological Algebra	3(3-0)
MTH-747	Relativistic Theory of Black Holes	3(3-0)
MTH-748	Classical Theory of Fields	3(3-0)
MTH-750	Theory of Abel Grassmann's Gropoids	3(3-0)
MTH-751	Symmetry Methods in Differential Equations	3(3-0)
MTH-752	General Linear Model	3(3-0)
MTH-753	Multivariate Analysis in Mathematics	3(3-0)
MTH-754	Continuum Mechanics	3(3-0)
MTH-755	Introduction to Algebraic Geometry	3(3-0)
MTH-758	Direct and Inverse Problems in Wave Propagation	3(3-0)
MTH-759	Commutative Algebra and Algebraic Geometry	3(3-0)
MTH-760	Rough Set Theory and its Applications	3(3-0)
MTH-761	Viscous Fluids I	3(3-0)
MTH-762	Viscous Fluids II	3(3-0)
MTH-763	Hilbert Space Methods	3(3-0)
MTH-764	Numerical Solutions of PDEs II	3(3-0)
MTH-765	Heat Transfer	3(3-0)
MTH-766	Elasto-dynamics	3(3-0)
MTH-767	Fluid and Thermodynamics	3(3-0)
MTH-768	Magneto Hydrodynamics	3(3-0)
MTH-769	Group Theoretic Methods	3(3-0)
MTH-770	Advanced Analytical Dynamics	3(3-0)
MTH-771	Momentum and Thermal Boundary -Layer Theory	3(3-0)
MTH-772	MHD and Porous Media	3(3-0)
MTH-773	Physical Turbulent Flows	3(3-0)
MTH-774	MS thesis	6(0-6)

## PhD Mathematics

### Program Summary

Duration	3 Year
Number of Semesters	6
Total Credit Hours	30

### Career Prospects

- \* Research and Development Organizations
- \* Economic Research Firms
- \* Market Research and Manufacturing Organizations
- \* Teaching Opportunities in Schools, Colleges and Universities
- \* Accountant, Actuary, Statistician, Economist and Market Researcher
- \* Quantitative Risk Analyst, Treasury Management Specialist and Demographer
- \* Defense Research and Development Organizations
- \* Pakistan Space Research Organizations
- \* Reputed Software Companies
- \* Banks and Insurance Companies
- \* Provincial Public Services and Federal Public Services



## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MTH-xxx	Elective Course-I	3(3-0)
MTH-802	Advanced Theory of Semirings	3(3-0)
MTH-804	Advanced Partial Differential Equations and Applications	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MTH-xxx	Elective Course-II	3(3-0)
MTH-805	Advanced Fixed Point theory and Applications	3(3-0)
MTH-803	Mathematical Techniques for Boundary Value Problems	3(3-0)
SEMESTERS 3,4,5,6		
Course Code	Course Title	Credit Hour
MTH-820	Research and Thesis	12(0-12)

## Elective Courses

Course Code	Course Title	Credit Hour
MTH-802	Advanced Theory of Semirings	3(3-0)
MTH-801	Advanced Hilbert Space Methods	3(3-0)
MTH-803	Advanced Mathematical Techniques	3(3-0)
MTH-804	Advanced Partial Differential Equations and Applications	3(3-0)
MTH-805	Advanced Fixed Point theory and Applications	3(3-0)
MTH-806	Mathematical Techniques for B.V Problems	3(3-0)
MTH-807	Non-Newtonian Fluid Mechanics	3(3-0)
MTH-808	Spectrum Methods in Fluid Dynamics	3(3-0)
MTH-809	Topics in Applied Mathematics	3(3-0)
MTH-810	Topics in Pure Mathematics	3(3-0)
MTH-811	Topics in Numerical Mathematics	3(3-0)
MTH-812	Simple Linear Regression Model	3(3-0)
MTH-813	Multiple Linear Regression Model	3(3-0)
MTH-814	Topics in Mathematics Statistics	3(3-0)
MTH-815	Topics in Applied Commutative Algebra	3(3-0)
MTH-816	Advanced Topics in Graph Valuation Theory	3(3-0)
MTH-817	Numerical Methods for Incompressible Flows	3(3-0)
MTH-818	Topics in Graph Valuations	3(3-0)
MTH-819	Numerical Methods for Variational Inequalities	3(3-0)
MTH-820	PhD Thesis	12(0-12)



## FACULTY OF SCIENCES

### Department of Social Sciences

#### Introduction

The Department of Social Sciences warmly welcomes the students in this prestigious institution. This university is committed to provide a healthy and supportive environment for quality education with esteemed faculty members having experiences from renowned institutes. The Department of Social Sciences offers a comprehensive curriculum in English, Psychology, Sociology, Islamic Studies and Education, designed to equip learners with critical thinking and analytical skills, essential for today's world. Your time at GAUS and in the Social Sciences Department is both meaningful and pleasant.

The Department of Social Sciences empowers our students to understand human behavior, social structures and relationships by offering undergraduate programs in English, Psychology, Sociology, Islamic Studies, Education and Sports & Rehabilitation. Our expert faculty, cutting-edge curriculum, and research opportunities equip undergraduates for successful careers in social services, education and research organizations.

#### Objectives

The core objectives of this department are:

- to produce well-rounded young professionals with sound and deep knowledge of Linguistics, Literature, Psychology, Sociology, Islamic Studies and Education.
- to encourage the development of communication and presentation skills.
- to develop skills and scientific approach to understand behavior, social norms and values and social problems in society.
- to offer knowledge of basic Islamic Sciences such as al-Quran, al-Hadith, al-Fiqh, Islamic History, Islamic Thought, Seerah, Islamic Culture and Civilization and to create better understanding of Islam and contemporary challenges faced by the Muslim Ummah

### Programs Being Offered

- ADP English
- ADP Sociology
- ADP Psychology
- ADP Sports and Rehabilitation
- ADP Education
- ADP Islamic Studies



## Message From HOD



The Department of Social Sciences warmly welcomes to the students in our prestigious institution. This university is committed to provide a healthy and supportive environment for quality education, guided by our esteemed faculty members who are having experiences of renowned institutes. Our programs offer a comprehensive curriculum in English, Psychology, Sociology, Islamic Studies and Education, designed to equip you with critical thinking and analytical skills essential for today's world. Upon completing your degree, you surely will emerge as a skilled and impactful professionals instilled with all the competitive capabilities required to be the most useful persons in your fields. The Department of Social Sciences empowers our students to understand human behavior, social structures and relationships by

offering undergraduate programs in English, Psychology, Sociology, Islamic Studies, Education and Sports & Rehabilitation. Our expert faculty, cutting-edge curriculum, and research opportunities equip undergraduates for successful careers in social services, education and research organizations.

**Prof. Dr. Iqbal Butt**  
PhD English



## ADP English

### Program Summary

Admission: Fall  
Program Duration: 2 Years  
Total Semesters: 4  
Total Credit Hours: 68

### Career Prospects

- English Teacher/ Lecturer
- Writer/ Journalist
- Copy writer
- Language Interpreter/Translator
- Researcher (Literary/Linguistic)
- Content Writer

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS-501	History	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
ELL-501	Introduction to Linguistics	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
CCE-501	Civics & Community Engagement	2(2-0)
ISL-501	Islamic Studies	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
ELL-502	Introduction to Literature	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
QRE-501	Quantitative Reasoning-I	3(3-0)
EDU-501	Foundations of Education	3(3-0)
ELL-503	Classical Poetry	3(3-0)
ELL-504	Prose	3(3-0)
ELL-505	Applied Linguistics	3(3-0)
ELL-506	Sociolinguistics	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
QRE-502	Quantitative Reasoning-II	3(3-0)
POL-501	Introduction to Political Science	3(3-0)
ELL-507	Classical Drama	3(3-0)
ELL-508	Short Fictional Narratives	3(3-0)
ELL-509	Morphology	3(3-0)
ELL-510	Syntax	3(3-0)
THQ-501	Teaching of Holy Quran	Non-Credited



## ADP Clinical Psychology

### Program Summary

Admission: Fall  
Program Duration: 2 Years  
Total Semesters: 4  
Total Credit Hours: 68

### Career Prospects

- Behavioral Therapist
- Substance Abuse Counselor
- Teacher/Educator
- Youth Counselor

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS-501	History	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
PSY-501	Introduction to Psychology I	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
CCE-501	Civics & Community Engagement	2(2-0)
ISL-501	Islamic Studies	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
PSY-502	Introduction to Psychology II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
QRE-501	Quantitative Reasoning I	3(3-0)
ANT-501	Introduction to Anthropology	3(3-0)
PSY-503	Gender issues in Psychology	3(3-0)
PSY-504	Applied Psychology	3(3-0)
PSY-505	History of Psychology	3(3-0)
PSY-506	Educational Psychology	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
QRE-502	Quantitative Reasoning II	3(3-0)
POL-501	Introduction to Political Science	3(3-0)
PSY-507	Moral development	3(3-0)
PSY-508	Mental Health & Psychopathology I	3(3-0)
PSY-509	Health Psychology	3(3-0)
PSY-510	Developmental Psychology	3(3-0)
THQ-501	Teaching of Holy Quran	Non-Credited



## ADP Sociology

### Program Summary

Admission: Fall

Program Duration: 2 Years

Total Semesters: 4

Total Credit Hours: 68

### Career Prospects

- Social Researcher
- Policy Analyst
- Community Organizer
- Urban Planner
- Social Worker
- Teacher/Educator

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS-501	History	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SOC-501	Introduction to Sociology	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
CCE-501	Civics & Community Engagement	2(2-0)
ISL-501	Islamic Studies	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
SOC-502	Introduction to Sociology -II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
QRE-501	Quantitative Reasoning -I	3(3-0)
EDU-501	Foundations of Education	3(3-0)
SOC-503	Development of Social thought	3(3-0)
SOC-504	Sociological Theory -I	3(3-0)
SOC-505	Political Sociology	3(3-0)
SOC-506	Urban Sociology	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
QRE-502	Quantitative Reasoning -II	3(3-0)
POL-501	Introduction to Political Science	3(3-0)
SOC-507	Sociological Theory -II	3(3-0)
SOC-508	Gender Studies	3(3-0)
SOC-509	Criminology	3(3-0)
SOC-510	Rural Sociology	3(3-0)
THQ-501	Teaching of Holy Quran	Non-Credited



## ADP Education

### Program Summary

Admission: Fall

Program Duration: 2 Years

Total Semesters: 4

Total Credit Hours: 68

### Career Prospects

- Teacher/Educator
- Curriculum Developer
- Educational Consultant
- School Administrator

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS-501	History	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
EDU-501	Basics of Education	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
CCE-501	Civics & Community Engagement	2(2-0)
ISL-501	Islamic Studies	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
EDU-502	Introduction to Physical Education	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
QRE-501	Quantitative Reasoning -I	3(3-0)
ANT-501	Introduction to Anthropology	3(3-0)
EDU-503	Introduction to Special Education	3(3-0)
EDU-504	Teaching of Social Studies	3(3-0)
EDU-504	Child Development	3(3-0)
EDU-505	Teaching Profession	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
QRE-502	Quantitative Reasoning -II	3(3-0)
POL-501	Introduction to Political Science	3(3-0)
EDU-506	Classroom Management	3(3-0)
EDU-507	Environmental Education	3(3-0)
EDU-508	Art, Craft & Calligraphy	3(3-0)
EDU-509	Teaching Literacy Skills	3(3-0)
THQ-501	Teaching of Holy Quran	Non-Credited



## ADP Islamic Studies

### Program Summary

Admission: Fall  
Program Duration: 2 Years  
Total Semesters: 4  
Total Credit Hours: 68

### Career Prospects

- Islamic Educator/Teacher
- Islamic Scholar/Researcher
- Community Leader/ Activist
- Islamic Counselor
- Writer/Journalist (Islamic Publication)

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS-501	History	2(2-0)
PSY-500	Introduction to Psychology	2(2-0)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
ISL-501	Arabic Language -I	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
ES-501	Introduction to Environmental Science s	2(2-0)
ES-501-P	Introduction to Environmental Science s LAB	1(0-1)
CCE-501	Civics & Community Engagement	2(2-0)
ISL-501	Islamic Studies	2(2-0)
ENT-501	Entrepreneurship	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
ISI-502	Arabic Language -II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
QRE-501	Quantitative Reasoning -I	3(3-0)
EDU-501	Foundations of Education	3(3-0)
ISL- 503	Textual Study of Holy Quran	3(3-0)
ISL-504	Arabic Language -III	3(3-0)
ISL- 505	Research Methods in Islamic Studies -I	3(3-0)
ISL-506	Introduction to Fiqh	3(3-0) s
SEMESTER 4		
Course Code	Course Title	Credit Hour
QRE-502	Quantitative Reasoning -II	3(3-0)
POL-501	Introduction to Political Science	3(3-0)
ISL- 507	Textual Study of Fiqh	3(3-0)
ISL- 508	Hadith -I	3(3-0)
ISL- 509	Research Methods in Islamic Studies -II	3(3-0)
ISL-510	Religion and Politics	3(3-0)
THQ-501	Teaching of Holy Quran	Non-Credited



## ADP Sports & Rehabilitation

### Program Summary

Admission: Fall  
Program Duration: 2 Years  
Total Semesters: 4  
Total Credit Hours: 68

### Career Prospects

- \* Physical Therapy Assistant
- \* Rehabilitation Technician
- \* Sports Injury Assistant
- \* Fitness & Wellness Coach
- \* Orthopedic Clinic Assistant

## SCHEME OF STUDIES

Semester 1		
Course Code	Course Title	Credit Hour
ENG -501	Functional English	3(3-0)
ICT -501	Applications of Information & Communication Technologies	2(2-0)
ICT-501 -P	Applications of Information & Communication Technologies LAB	1(0-1)
HIS -501	History	2(2-0)
PSY -500	Introduction to Psychology	2(2-0)
ICP -501	Ideology & Constitution of Pakistan	2(2-0)
SAR -501	Introduction to Physical Education	3(3-0)
Semester 2		
Course Code	Course Title	Credit Hour
ENG -502	Expository Writing	3(3-0)
ES -501	Introduction to Environmental Sciences	2(2-0)
ES -501 -P	Introduction to Environmental Sciences LAB	1(0-1)
CCE -501	Civics & Community Engagement	2(2-0)
ISL -501	Islamic Studies	2(2-0)
ENT -501	Entrepreneurship	2(2-0)
SAR -502	Theory of Games -I	3(3-0)
SAR -503	Games -I (Football, Hockey & Kabbadi)	3(3-0)
Semester 3		
Course Code	Course Title	Credit Hour
QRE -501	Quantitative Reasoning -I	3(3-0)
EDU -501	Foundations of Education	3(3-0)
SAR -504	Theory of Games -II	3(3-0)
SAR -505	Games -II (Badminton, Table Tennis & Tennis)	3(3-0)
SAR -506	Athletics -I (Throwing Events)	3(3-0)
SAR -507	Talent Identification in Sports	3(3-0)
PKS -501	Pakistan Studies	2(2-0)
Semester 4		
Course Code	Course Title	Credit Hour
QRE -502	Quantitative Reasoning -II	3(3-0)
POL -501	Introduction to Political Science	3(3-0)
SAR -508	Fitness & Wellness in Sports	3(3-0)
SAR -509	Sports Nutrition	3(3-0)
SAR -510	Introduction to Modern Technologies in Sports	3(3-0)
SAR -511	Biomechanics	3(3-0)
THQ -501	Teaching of Holy Quran	Non -Credited



## FACULTY OF SCIENCES

### Department of Computer Science & Software Engineering

#### Introduction

The Department of Computer Science and Software Engineering is focused upon qualitative growth of students through devising innovative, realistic, market-oriented challenges and correct solutions to real life problems. At present three types of programs are offered to the students. Masters in Computer and Data Science, Bachelor degrees in Computer Science and Software Engineering and Associate degrees programs in all fields of computing are offered. The Department of Computer Science and Software Engineering is established with top-of-the-line infrastructure having state of the art computer labes, multimedia equipped temperature conditioned class rooms, highly qualified faculty, HEC approved canicula and programs being accredited from NCEAC. The students are bringing laurels by winning competitions and refining skills through technological clubs, like, Free Lancing, Digital Marketing, Functional and Visual front and back-end programming. Developing Android Applications and Games, expertise in Artificial Intelligence and cyber security. The Department of Computer Science & Software Engineering works with a clent mission to provide trained resources for developing high-tech products and services .

#### Objectives

The core objectives of this department are:

- to develop future IT workforce capable to identify, analyze, and solve the problems.
- to produce the best quality computer scientists, IT professionals, and researchers by providing state-of-the-art training, hands-on experience, and a healthy research environment.
- to collaborate with industry and academia around the globe to achieve quality technical education and excellence in research through active participation of all the stakeholders.
- to exercise commercialization through the incubation of high-tech companies.

### Programs Being Offered

- |                               |                                |
|-------------------------------|--------------------------------|
| ▪ ADP Information Technology  | ▪ ADP Software Development     |
| ▪ ADP Cyber Security          | ▪ ADP Web Design & Development |
| ▪ ADP Data Science            | ▪ BS Computer Science          |
| ▪ ADP Database Management     | ▪ BS Software Engineering      |
| ▪ ADP Artificial Intellegence | ▪ MS Computer Science          |
| ▪ ADP Computer Science        | ▪ MS Data Science              |



## Message From HOD



The Department of Computer Science & Software Engineering at Grand Asian University, Sialkot, is driven by a clear mission to equip the students with such skills which make them capable of developing cutting-edge products and services while fostering commercialization through the incubation of high-tech companies. Though a robust combination of degree programs, research initiatives, and innovative development, our graduates emerge as highly competent professionals and entrepreneurs, ready to make a significant societal impact.

We believe in fostering a culture of innovation and intellectual curiosity, empowering students to become agile learners and critical thinkers. By equipping them with a strong foundation in theoretical concepts, hands-on practical skills, and exposure to the latest technologies, we prepare our graduates to excel in the competitive landscape of the 21st century.

As prospective students of this dynamic and rapidly evolving domain, I warmly welcome you to join us. I urge you to embrace this journey with vigor, determination, and a commitment to achieving excellence. The field of computer science and software engineering demands adaptability, creativity, and relentless pursuit of knowledge traits that we cultivate in our students to ensure their success. Together, let us shape the future of technology and innovation, leaving a legacy of progress and excellence.

**Prof. Dr. Tanvir Ahmed**  
PhD Computer Science (UK)



# ADP Information Technology

## Program Summary

Admission: Fall & Spring  
Duration: 2 Years  
Total Semesters: 4  
Total Credit hours: 72

## Career Prospects

- \* IT Project Managers
- \* Software Engineers
- \* Computer Programmers
- \* Applications Developers
- \* Web Designers & Developers
- \* Database Administrators & Data analysts
- \* Computer Network Architectures & Network Administrators
- \* Network Engineers
- \* Information Security Analysts
- \* Cybersecurity Specialists
- \* Video game developer
- \* Artificial Intelligence Experts
- \* Computer and Information Research Scientists
- \* Cloud computing experts
- \* Computer forensics experts and applications developers
- \* Computer Science Teacher
- \* IT consultants

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS6-532		System & Network Administration	1(1-0)
CS6-601		Web Technologies	1(1-0)
CS6-617		Advanced Data Management	1(1-0)
CS5-603		HCI & Computer Graphics	1(1-0)
CS6-606-P		Cyber Security LAB	2(0-2)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-532-P		System & Network Administration LAB	2(0-2)
CS6-601-P		Web Technologies LAB	2(0-2)
CS6-617-P		Advanced Data Management LAB	2(0-2)
CS5-603-P		HCI & Computer Graphics LAB	2(0-2)

The contents of the courses will be followed as per higher education Commission and NCEAC guidelines, as and when issued.



## ADP Cyber Security

### Program Summary

Admission	Fall & Spring
Duration	2 Years
Total Semesters:	4
Total Credit hours:	72

### Career Prospects

- \* Information Security Analysts
- \* Cybersecurity Specialists
- \* Video game developer
- \* Artificial Intelligence Experts
- \* Computer and Information
- \* Research Scientists

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
CS6-606		Cyber Security	1(1-0)
CS6-527-P		Wireless and Mobile Security LAB	2(0-2)
CS6-528		Network Security	1(1-0)
CS6-529		Secure Software Design and Development	1(1-0)
CS6-530		Digital Forensics	1(1-0)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-606-P		Cyber Security LAB	2(0-2)
CS6-528-P		Network Security LAB	2(0-2)
CS6-529-P		Secure Software Design and Development LAB	2(0-2)
CS6-530-P		Digital Forensics LAB	2(0-2)

The contents of the courses will be followed as per higher education Commission and NCEAC guidelines, as and when issued.



## ADP Data Science

### Program Summary

Admission	Fall & Spring
Duration	2 Years
Total Semesters:	4
Total Credit hours:	72

### Career Prospects

* IT project managers	* Artificial Intelligence Experts
* Computer Programmers	* Computer and Information Research Scientists
* Applications Developers	* Cloud computing experts
* Web Designers & Developers	* Network Engineers
* Database Administrators & Data analysts	
* Video game developer	

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
CS6-606		Cyber Security	1(1-0)
CS6-527-P		Wireless and Mobile Security LAB	2(0-2)
CS6-528		Network Security	1(1-0)
CS6-529		Secure Software Design and Development	1(1-0)
CS6-530		Digital Forensics	1(1-0)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-606-P		Cyber Security LAB	2(0-2)
CS6-528-P		Network Security LAB	2(0-2)
CS6-529-P		Secure Software Design and Development LAB	2(0-2)
CS6-530-P		Digital Forensics LAB	2(0-2)

The contents of the courses will be followed as per higher education Commission and NCEAC guidelines, as and when issued.



# ADP Database Management

## Program Summary

Admission Fall & Spring  
Duration 2 Years  
Total Semesters: 4  
Total Credit hours: 72

## Career Prospects

\* Computer Programmers  
\* Applications Developers  
\* Database Administrators & Data analysts  
\* Computer Network Architectures & Network Administrators  
\* Computer and Information Research Scientists  
\* Cloud computing experts  
\* IT consultants  
\* Network Engineers

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS6-547-P		Fundamentals of Front End Development LAB	2(0-2)
CS6-548		Database Programming using Oracle 11g	1(1-0)
CS6-549		Web Based Database Applications	1(1-0)
CS6-550		Operating Systems	1(1-0)
CS6-551		Introduction to Database Administration	1(1-0)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-548-P		Database Programming using Oracle 11g LAB	2(0-2)
CS6-549-P		Web Based Database Applications LAB	2(0-2)
CS6-550-P		Operating Systems LAB	2(0-2)
CS6-551-P		Introduction to Database Administration LAB	2(0-2)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



# ADP Artificial Intelligence

## Program Summary

Admission: Fall & Spring  
Duration: 2 Years  
Total Semesters: 4  
Total Credit hours: 72

## Career Prospects

- \* Artificial Intelligence Experts
- \* Computer and Information Research Scientists
- \* Cloud computing experts
- \* Computer forensics experts and applications developers

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS5-513		Data Mining	1(1-0)
CS6-522		Machine Learning	1(1-0)
CS6-523		ANN & DL	1(1-0)
CS5-606		Parallel and Distributed Computing	1(1-0)
CS6-525-P		Programming for AI LAB	2(0-2)
ISL-501		Islamic Studies	2(2-0)
ICP-501		Ideology and Constitution of Pakistan	2(2-0)
ENT-501		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS5-513-P		Data Mining LAB	2(0-2)
CS6-522-P		Machine Learning LAB	2(0-2)
CS6-523-P		ANN & DL LAB	2(0-2)
CS5-606-P		Parallel and Distributed Computing LAB	2(0-2)

The contents of the courses will be followed as per higher education commission and NCEA guidelines, as and when issued.



# ADP Computer Science

## Program Summary

Admission Fall & Spring  
Duration 2 Years  
Total Semesters: 4  
Total Credit hours: 72

## Career Prospects

- \* IT project managers
- \* Computer Programmers
- \* Applications Developers
- \* Web Designers & Developers
- \* Database Administrators & Data analysts
- \* Computer Network Architectures & Network Administrators
- \* Information Security Analysts
- \* Computer forensics experts and applications developers
- \* Computer Science Teacher
- \* IT Consultants
- \* Network Engineers

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS5-502		Elective 1 (Advanced Database LAB)	1(1-0)
CS6-601		Elective 2 (Web Technologies LAB)	1(1-0)
CS6-602		Elective 3 Mobile Application Development LAB)	1(1-0)
CS6-603		Elective 4 Advanced Programming LAB	1(1-0)
CS6-606-P		Elective 5 Cyber Security LAB	2(0-2)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS5-502-P		Elective 1 (Advanced Database LAB)	2(0-2)
CS6-601-P		Elective 2 (Web Technologies LAB)	2(0-2)
CS6-602-P		Elective 3 Mobile Application Development LAB)	2(0-2)
CS6-603-P		Elective 4 Advanced Programming LAB	2(0-2)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



# ADP Software Development

## Program Summary

Admission	Fall & Spring
Duration	2 Years
Total Semesters:	4
Total Credit hours:	72

## Career Prospects

- \* Software Engineers
- \* Computer Programmers
- \* Database analysts Administrators & Data
- \* Computer Network Architectures & Network Administrators
- \* Information Security Analysts
- \* Computer forensics experts and applications developers
- \* Computer Science Teacher
- \* IT consultants
- \* Network Engineers

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS6-544		Advance Web Development	1(1-0)
CS4-506		Elective Information Security	1(1-0)
CS6-543		Formal Methods in Software Engineering	1(1-0)
CS6-545		Stochastic Processes	1(1-0)
CS6-546-P		Software Project LAB	2(0-2)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-544-P		Advance Web Development LAB	2(0-2)
CS4-506-P		Elective Information Security LAB	2(0-2)
CS6-543-P		Formal Methods in Software Engineering LAB	2(0-2)
CS6-545-P		Stochastic Processes LAB	2(0-2)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



# ADP Web Design & Development

## Program Summary

Admission: Fall & Spring  
Duration: 2 Years  
Total Semesters: 4  
Total Credit hours: 72

## Career Prospects

- \* Applications Developers
- \* Web Designers & Developers
- \* Database Administrators & Data analysts
- \* Computer Network
- \* Architectures & Network Administrators

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Linear Algebra	3(3-0)
ENG-502	ENG-501	Expository Writing	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-0)
CS4-506		Information Security	2(2-0)
CS4-507		Artificial Intelligence	2(2-0)
CS4-508		Computer Networks	2(2-0)
CS4-509		Software Engineering	3(3-0)
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS6-541		Cyber Law	1(1-0)
CS6-534		Web Design & Development	1(1-0)
CS6-535		Data Communication	1(1-0)
CS6-537		Information system	1(1-0)
CS6-538-P		Operating System/Single Page Application LAB	2(0-2)
ISL-501		Islamic Studies	2(2-0)
ICP-601		Ideology and Constitution of Pakistan	2(2-0)
ENT-601		Entrepreneurship	2(2-0)
THQ-501		Teaching of Holy Quran	Non-Credited
CS6-541-P		Cyber Law LAB	2(0-2)
CS6-534-P		Web Design & Development LAB	2(0-2)
CS6-535-P		Data Communication LAB	2(0-2)
CS6-537-P		Information system LAB	2(0-2)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



# BS Computer Science

## Program Summary

Admission Fall & Spring  
Duration 4 Years  
Total Semesters: 8  
Total Credit hours: 130

## Career Prospects

- \* IT project managers
- \* Software Engineers
- \* Computer Programmers
- \* Applications Developers
- \* Database Administrators & Data analysts
- \* Computer Network Architectures & Network Administrators
- \* Artificial Intelligence Experts
- \* Computer and Information Research Scientists
- \* Cloud computing experts
- \* Computer forensics experts and applications developers
- \* Computer Science Teacher
- \* IT consultants
- \* Network Engineers

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4 -501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE -501		QR 1 (Discrete Structures)	3(3-0)
QRE -502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG -501		Functional English	3(3-0)
CS4 -501 -P		Programming Fundamentals LAB	1(0-1)
ICT -501 -P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4 -502	CS4 -501	Object Oriented Programming	3(3-0)
CS4 -503		Database Systems	3(3-0)
CS4 -504		Digital Logic Design	2(2-0)
CS2 -501	QRE -502	Multivariable Calculus	3(3-0)
CS2 -502	RE -502	Linear Algebra	3(3-0)
CS4 -502 -P	CS4 -501	Object Oriented Programming LAB	1(0-1)
CS4 -503 -P		Database Systems LAB	1(0-1)
CS4 -504 -P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4 -505	CS4 -502	Data Structures	3(3-0)
CS4 -506		Information Security	2(2-0)
CS4 -507		Artificial Intelligence	2(2-0)
CS4 -508		Computer Networks	2(2-0)
CS4 -509		Software Engineering	3(3-0)
CS2 -503		Probability & Statistics	3(3-0)
CS4 -505 -P	CS4 -502	Data Structures LAB	1(0-1)
CS4 -506 -P		Information Security LAB	1(0-1)
CS4 -507 -P		Artificial Intelligence LAB	1(0-1)
CS4 -508 -P		Computer Networks LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4 -510	CS4 -504	Computer Organization & Assembly Language	3(3-0)
CS5 -501		Domain Core 1 (Theory of Automata)	3(3-0)
CS5 -502		Domain Core 2 (Advance Database Management Systems)	2(2-0)
PHY -501		Natural Science (Applied Physics *Should be offered in 3rd Sem for CE)	2(2-0)
ENG -502		Expository Writing	3(3-0)
ISL -501		Islamic Studies	2(2-0)
CS4 -510 -P	CS4 -504	Computer Organization & Assembly Language LAB	1(0-1)
CS5 -502 -P		Domain Core 2 (Advance Database Management Systems) LAB	1(0-1)
PHY -501 -P		Natural Science (Applied Physics, *Should be offered in 3rd Sem for CE) LAB	1(0-1)



SEMESTER 5			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -611		Operating Systems	2(2 -3)
CS5 -603		Domain Core 3 (HCI & Computer Graphics)	2(2 -3)
CS5 -604		Domain Core 4 (Computer Architecture)	2(2 -3)
CS6 -601		Domain Elective 1 (Example: Web Technologies)	2(2 -3)
CS6 -602		Domain Elective 2 (Example: Mobile Application Development 1)	2(2 -3)
MGM -601		Social Science (Example: Introduction to Management)	2(2 -0)
CS4 -611 -P		Operating Systems LAB	1(0 -1)
CS5 -603 -P		Domain Core 3 (HCI & Computer Graphics) LAB	1(0 -1)
CS5 -604 -P		Domain Core 4 (Computer Architecture) LAB	1(0 -1)
CS6 -601 -P		Domain Elective 1 (Example: Web Technologies) LAB	1(0 -1)
CS6 -602 -P		Domain Elective 2 (Example: Mobile Application Development 1) LAB	1(0 -1)
SEMESTER 6			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS5 -605	CS5 -501	Domain Core 5 (Compiler Construction)	2(2 -0)
CS5 -606		Domain Core 6 (Parallel & Distributed Computing)	2(2 -0)
CS6 -603		Domain Elective 3 (Example: Advanced Programming – Visual Prog)	2(2 -0)
CS6 -604		Domain Elective 4 (Example: Numerical Analysis)	2(2 -0)
CS6 -605		Domain Elective 5 (Example: Web Engineering)	2(2 -0)
CS6 -606		Domain Elective 6 (Example: Cyber Security)	2(2 -0)
CS5 -605 -P	CS5 -501	Domain Core 5 (Compiler Construction) LAB	1(0 -1)
CS5 -606 -P		Domain Core 6 (Parallel & Distributed Computing) LAB	1(0 -1)
CS6 -603 -P		Domain Elective 3 (Example: Advanced Programming – Visual Prog) LAB	1(0 -1)
CS6 -604 -P		Domain Elective 4 (Example: Numerical Analysis) LAB	1(0 -1)
CS6 -605 -P		Domain Elective 5 (Example: Web Engineering) LAB	1(0 -1)
CS6 -606 -P		Domain Elective 6 (Example: Cyber Security) LAB	1(0 -1)
SEMESTER 7			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -613 -P		Final Year Project – I LAB	2(0 -2)
CS4 -612		Analysis of Algorithms	3(3 -0)
CS6 -607		Domain Elective 7 (Example: Software Testing & Quality Assurance)	2(2 -0)
CS3 -601		Elective Supporting Course (Example: Introduction to Marketing)	3(3 -0)
ENG -603		Technical & Business Writing	3(3 -0)
ENT -601		Entrepreneurship	2(2 -0)
CS6 -607 -P		Domain Elective 7 (Example: Software Testing & Quality Assurance) LAB	1(0 -1)
SEMESTER 8			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -614 -P		Final Year Project – II LAB	4(0 -4)
ICP -601		Ideology and Constitution of Pakistan	2(2 -0)
ICP -602		Arts & Humanities (Professional Practices)	2(2 -0)
CCE -601		Civics and Community Engagement	2(2 -0)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



# BS Software Engineering

## Program Summary

Admission Fall  
Duration 4 Years  
Total Semesters: 8  
Total Credit hours: 130

## Career Prospects

- \* Software Engineers
- \* Database Administrators & Data analysts
- \* Computer Network Architectures & Network Administrators
- \* Information Security Analysts
- \* Artificial Intelligence Experts
- \* Computer and Information Research Scientists
- \* Cloud computing experts
- \* Computer forensics experts and applications developers
- \* Computer Science Teacher
- \* IT consultants

## SCHEME OF STUDIES

SEMESTER 1			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-501		Programming Fundamentals	3(3-0)
ICT-501		Application of Information & Communication Technologies	2(2-0)
QRE-501		QR 1 (Discrete Structures)	3(3-0)
QRE-502		QR 2 (Calculus and Analytic Geometry)	3(3-0)
ENG-501		Functional English	3(3-0)
CS4-501-P		Programming Fundamentals LAB	1(0-1)
ICT-501-P		Application of Information & Communication Technologies LAB	1(0-1)
SEMESTER 2			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-502	CS4-501	Object Oriented Programming	3(3-0)
CS4-503		Database Systems	3(3-0)
CS4-504		Digital Logic Design	2(2-0)
CS2-501	QRE-502	Multivariable Calculus	3(3-0)
CS2-502	RE-502	Linear Algebra	3(3-0)
CS4-502-P	CS4-501	Object Oriented Programming LAB	1(0-1)
CS4-503-P		Database Systems LAB	1(0-1)
CS4-504-P		Digital Logic Design LAB	1(0-1)
SEMESTER 3			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-505	CS4-502	Data Structures	3(3-3)
CS4-506		Information Security	2(2-3)
CS4-507		Artificial Intelligence	2(2-3)
CS4-508		Computer Networks	2(2-3)
CS4-509		Software Engineering	3(3-0)
CS2-503		Probability & Statistics	3(3-0)
CS4-505-P	CS4-502	Data Structures LAB	1(0-1)
CS4-506-P		Information Security LAB	1(0-1)
CS4-507-P		Artificial Intelligence LAB	1(0-1)
CS4-508-P		Computer Networks LAB	1(0-1)
SEMESTER 4			
Course Code	Pre-Reqs	Course Title	Credit Hour
CS4-510	CS4-504	Computer Organization & Assembly Language	3(3-0)
CS5-507		Domain Core 1 (Software Design & Architecture)	2(2-0)
CS5-508		Domain Core 2 (Software Construction & Development)	2(2-0)
PHY-510		Natural Science (Applied Physics)	2(2-0)
ENG-502		Expository Writing	3(3-0)
ISL-501		Islamic Studies	2(2-0)
THQ-501		Teaching Holy Quran	Non-Credited
CS4-510-P	CS4-504	Computer Organization & Assembly Language LAB	1(0-1)
CS5-507-P		Domain Core 1 (Software Design & Architecture) LAB	1(0-1)
CS5-508-P		Domain Core 2 (Software Construction & Development) LAB	1(0-1)
PHY-510-P		Natural Science (Applied Physics) LAB	1(0-1)



SEMESTER 5			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -611		Operating Systems	3(3 -0)
CS5 -610		Domain Core 3 (Software Quality Engineering)	2(2 -0)
CS5 -611		Domain Core 4 (Software Requirement Engineering)	3(3 -0)
CS6 -601		Domain Elective 1 (Example: Web Technologies)	2(2 -0)
CS6 -602		Domain Elective 2 (Example: Mobile Application Development 1)	2(2 -0)
MGM -601		Social Science (Example: Introduction to Management)	2(2 -0)
CS5 -610 -P		Domain Core 3 (Software Quality Engineering) LAB	1(0 -1)
CS6 -601 -P		Domain Elective 1 (Example: Web Technologies) LAB	1(0 -1)
CS6 -602 -P		Domain Elective 2 (Example: Mobile Application Development 1) LAB	1(0 -1)
SEMESTER 6			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS5 -609		Domain Core 5 (Software Project Management)	3(3 -0)
CS5 -606		Domain Core 6 (Parallel & Distributed Computing)	2(2 -0)
CS6 -611		Software Verification and Validation	3(3 -0)
CS6 -612		Object Oriented Analysis & Design	3(3 -0)
CS6 -605		Domain Elective 5 (Example: Web Engineering)	2(2 -0)
CS6 -606		Domain Elective 6 (Example: Cyber Security)	2(2 -0)
CS5 -606 -P		Domain Core 6 (Parallel & Distributed Computing) LAB	1(0 -1)
CS6 -605 -P		Domain Elective 5 (Example: Web Engineering) LAB	1(0 -1)
CS6 -606 -P		Domain Elective 6 (Example: Cyber Security) LAB	1(0 -1)
SEMESTER 7			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -613 -P		Final Year Project – I LAB	2 (0 -2)
CS4 -612		Analysis of Algorithms	3 (3 -0)
CS6 -620		Software Re -Engineering	3 (3 -0)
CS3 -601		Elective Supporting Course (Example: Introduction to Marketing)	3 (3 -0)
ENG -603		Technical & Business Writing	3 (3 -0)
ENT -601		Entrepreneurship	2 (2 -0)
SEMESTER 8			
Course Code	Pre -Reqs	Course Title	Credit Hour
CS4 -614 -P		Final Year Project – II LAB	4(0 -4)
ICP -601		Ideology and Constitution of Pakistan	2(2 -0)
ICP -602		Arts & Humanities (Professional Practices)	2(2 -0)
CCE -601		Civics and Community Engagement	2(2 -0)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued.



## MS Computer Science

### Program Summary

Admission	Fall & Spring
Duration	2 Years
Total Semesters:	04
Total Credit hours:	31

### Career Prospects

- \* IT project managers
- \* Computer Programmers
- \* Applications Developers
- \* Database Administrators & Data Analysts
- \* Computer Network Architectures & Network Administrators
- \* Information Security Analysts
- \* Computer and Information Research Scientists
- \* Cloud Computing Experts
- \* Computer forensics experts and Applications Developers
- \* Computer Science Teacher
- \* IT consultants
- \* Network Engineers

## SCHEME OF STUDIES

### Core Courses

Course Code	Title of Course	Credit Hour
CS1 -701	Theory of Automata	3(3-0)
CS1 -702	Advanced Analysis of Algorithms	3(3-0)
CS1 -703	Advanced Operating Systems	3(3-0)
CS1 -704	Research Methodology	1(1-0)
CS1 -705	Advanced Computer Architecture	3(3-0)
CS1 -706	Theory of Programming languages	3(3-0)

### Courses of Study

(Information about the Prerequisites (if any) of the course(s) will be provided by the Department at the beginning of the program)

SEMESTER 1		
Course Code	Course Title	Credit Hour
CS1-701	Theory of Automata	3(3-0)
CS1-702	Advanced Analysis of Algorithms	3(3-0)
CS1-703	Advanced Operating Systems	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
CS1-704	Research Methodology	1(1-0)
CS1-705	Advanced Computer Architecture	3(3-0)
CS2-701	Elective I	3(3-0)
CS2-702	Elective II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CS2-703	Elective III	3(3-0)
CS2-705	Research & Thesis	3(0-3)
SEMESTER 4		
Course Code	Course Title	Credit Hour
CS2-704	Elective IV	3(3-0)
CS2-705	Research & Thesis	3(0-3)



## Elective Courses

Course Code	Title of Course	Credit Hour
CS2-701	Computer Graphics	3(3-0)
CS2-702	Digital Image Processing	3(3-0)
CS2-703	Digital Signal Processing	3(3-0)
CS2-704	Advanced Computer Vision	3(3-0)
CS2-705	Distributed Computing	3(3-0)
CS2-706	Data and Network Security	3(3-0)
CS2-707	Fuzzy Logic	3(3-0)
CS2-708	Artificial Neural Network	3(3-0)
CS2-709	Expert Systems	3(3-0)
CS2-710	Data Warehousing	3(3-0)
CS2-711	Web Design and Development	3(3-0)
CS2-712	Mobile Application and Development	3(3-0)
CS2-713	Social Computing	3(3-0)
CS2-714	Wireless Networks	3(3-0)
CS2-715	Web Engineering	3(3-0)
CS2-716	Fundamentals of Data Mining	3(3-0)
CS2-717	Computational Intelligence	3(3-0)
CS2-718	Multi Agent Systems	3(3-0)
CS2-719	Natural Language Processing	3(3-0)
CS2-720	Game Development	3(3-0)
CS2-721	Logical Paradigms of Computing	3(3-0)
CS2-722	Formal Methods for Software Engineering	3(3-0)
CS2-723	Data Analytics	3(3-0)
DS1-701	Statistical and Mathematical Methods For Data Science	3(3-0)
DS1-702	Tools and Techniques in Data Science	3(3-0)
DS1-703	Machine Learning	3(3-0)
DS2-701	Big Data Analytics	3(3-0)
DS2-702	Deep Learning	3(3-0)
DS2-703	Natural Language Processing	3(3-0)
DS2-704	Distributed Data Processing	3(3-0)

The contents of the courses will be followed as per higher education commission and NCEAC guidelines, as and when issued



# MS Data Science (DS)

## Program Summary

Admission: Fall & Spring  
Duration: 2 Years  
Total Semesters: 04  
Total Credit hours: 31

## Career Prospects

- \* Computer Programmers
- \* Applications Developers
- \* Database Administrators & Data analysts
- \* Computer Network Architectures & Network Administrators
- \* Information Security Analysts
- \* Cloud computing experts
- \* Computer forensics experts and applications developers
- \* Computer Science Teachers

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
DS1-701	Statistical and Mathematical Methods for Data Science	3(3-0)
DS1-702	Tools and Techniques in Data Science	2(2-0)
DS1-702-P	Tools and Techniques in Data Science LAB	1(0-1)
DS3-701	Elective I	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
DS1-703	Machine Learning	3(3-0)
DS2-701	Specialization -Elective I	3(3-0)
DS2-702	Specialization -Elective II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
DS3-702	Elective II	3(3-0)
DS1-705	Research & Thesis	3(0-3)
SEMESTER 4		
Course Code	Course Title	Credit Hour
DS3-703	Elective II	3(3-0)
DS1-705	Research & Thesis	3(0-3)

## Elective Courses

Course Code	Course Title	Credit Hour
DS3-702	Bayesian Data Analysis	3(3-0)
DS3-703	Optimization Methods for Data Science and Machine Learning	3(3-0)
CS2-704	Advanced Computer Vision	3(3-0)
CS1-706	Theory of Programming Languages	3(3-0)
CS1-703	Advanced Operating Systems	3(3-0)
CS1-705	Advanced Computer Architecture	3(3-0)
CS1-701	Theory of Automata	3(3-0)
DS3-704	Data Visualization	3(3-0)
CS1-702	Advanced Analysis of Algorithms	3(3-0)
DS3-705	Time Series Analysis and Prediction	3(3-0)
DS3-706	Social Network Analysis	3(3-0)
DS3-707	Scientific Computing in Finance	3(3-0)
DS3-708	Computational Genomics	3(3-0)
DS3-709	Cloud Computing	3(3-0)
DS3-710	Bioinformatics	3(3-0)
DS3-711	Probabilistic Graphical Models	3(3-0)
DS3-712	High Performance Computing	3(3-0)
DS3-713	Inference & Representation	3(3-0)
DS3-714	Deep Reinforcement Learning	3(3-0)
DS3-715	Distributed Machine Learning in Apache Spark	3(3-0)
DS3-716	Distributed Data Processing and Machine Learning	3(3-0)
DS3-717	Research Methodology	3(3-0)



# FACULTY OF SCIENCES

## Department of Management Sciences and Economics

### Introduction

The department is dedicated to evolve an encouraging environment to cultivate and stimulate students and faculty. This department is using exceedingly groundbreaking teaching approaches which conglomerate brilliance in research with state of the art campus building with facilities and a full gamut of Undergraduate, MS/MPhil programs. These programs deliver visions into business practices and train students with analytical skills which have confirmed to be perilous to the success of organizations and companies.

The department of Management Sciences and Economics is exerting painstaking efforts to build marked reputation for producing business graduates fully equipped with professional excellence and excelled moral values.

The department is dedicated to cultivate a cathartic educational atmosphere that empowers students with forward-looking knowledge and ground-breaking thinking. We are committed to nurturing integrity and ethical leadership by leveraging specialized resources and aligning our curriculum with the Sustainable Development Goals (SDGs). Through collaborative learning, real-world applications, and a focus on social responsibility, we prepare our graduates to excel in a dynamic business landscape and contribute positively to society.

### Objectives

The core objectives of this department are:

- to enhance the essential leadership skills and abilities of students.
- to develop competencies of the students to broaden their vision.
- to develop and enhance the business management and accounting skills and capacities of the students.
- to enhance the ability of the students and groom them to deal with the multifaceted accounting circumstances.
- to urge and enhance the entrepreneurial skills to become self-employed and start their own business ventures.

### Programs Being Offered

- ADP Business Studies
- ADP International Sales & Marketing
- ADP Accounting & Finance
- ADP Hotel & Tourism Management
- ADP Commerce
- ADP Supply Chain Management
- BBA Bachelors of Business Administration
- BS Accounting & Finance
- MBA Masters of Business Administration
- MS Economics
- MS Business Administration



## Message From HOD



The Department of Management Sciences and Economics at Grand Asian University, Sialkot, is committed to fostering an environment that inspires and nurtures both students and faculty. With a focus on cultivating excellence, our department aims to shape individuals who are ready to lead and innovate in the world of business and economics.

From undergraduate to MS-level programs, the department provides a comprehensive academic experience that delves into the intricacies of business practices and economic theories. Students are trained to develop critical analytical and problem-solving skills that are indispensable for the success of organizations and companies. Our graduates emerge as capable professionals who can adapt to the challenges of a rapidly evolving business landscape, making impactful contributions both nationally and internationally.

As a member of this vibrant academic community, you will benefit from a curriculum designed to challenge and inspire you, guided by highly qualified faculty who are dedicated to your success. Our goal is not only to impart knowledge but to empower you to think creatively, act decisively, and lead with confidence.

We invite you to join us in this exciting journey of growth and discovery. Together, let us build a future where innovation, leadership, and vision drive meaningful change in the world of management and economics.

**Dr. Arslan Rafi**

Associate Professor (Marketing)





## ADP and BS Accounting & Finance

### Program Summary

Admission Fall & Spring

Duration 2,4 years

No. of Semesters 4,8

Total Credit hours: 71,130

### Career Prospects

- \* Accountant
- \* Financial Analyst
- \* Investment Banker
- \* Financial Planner
- \* Auditor
- \* Tax Consultant
- \* Financial Manager
- \* Portfolio Manager
- \* Risk Manager
- \* Chief Financial Officer

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting - I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO-501	Principles of Micro Economics	3(3-0)
QRE-501	Quantitative Reasoning-1	3(3-0)
MGT-506	Business Communication 1	3(3-0)
MGT-504	Principles of Marketing	3(3-0)
FIN-501	Financial Accounting - II	3(3-0)
MGT-505	Fundamentals of Business Finance	3(3-0)
PKS-501	Pak Studies	2(2-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ECO-502	Principles of Macro Economics	3(3-0)
QRE-501	Quantitative Reasoning-II	3(3-0)
MGT-509	Marketing Management	3(3-0)
HRM-511	Introduction to HRM	3(3-0)
MGT-514	Managerial Finance	3(3-0)
MGT-518	Business Law	3(3-0)
THQ-501	Translation of Holy Quran-1	Non-Credited
SEMESTER 5		
Course Code	Course Title	Credit Hour
MGT-519	Financial & Regulatory Institutions	3(3-0)
MGT-520	Production and Operation Management	3(3-0)
MGT-521	Organizational Behavior	3(3-0)
MGT-522	Financial Statement Analysis	3(3-0)
MGT-523	Managerial Accounting	3(3-0)



SEMESTER 6		
Course Code	Course Title	Credit Hour
MGT-524	Business Analytics	3(3-0)
MGT-525	Business Research Method	3(3-0)
MGT-526	Fundamental of Corporate Finance	3(3-0)
MGT-527	Auditing	3(3-0)
MGT-528	Investment & Portfolio Management	3(3-0)
MGT-537	Internship	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
MGT-529	Quantitative Techniques in Business	3(3-0)
MGT-530	Risk Management	3(3-0)
MGT-531	International Finance	3(3-0)
MGT-532	Financial Reporting	3(3-0)
MGT-533	Corporate Governance	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
MGT-534	Statistical Inference	3(3-0)
MGT-535	Strategic Management	3(3-0)
MGT-536	Research Project	3(3-0)

## ADP Business Studies

### Program Summary

Admission Fall & Spring

Duration 2 years

No. of Semesters 4

Total Credit hours: 71

### Career Prospects

- \* Management Trainee
- \* Business Development Officer
- \* Operations Manager
- \* Entrepreneur

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting- I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO-501	Principles of Micro Economics	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
MGT-506	Business Communication I	3(3-0)
MGT-504	Principles of Marketing	3(3-0)
FIN-501	Financial Accounting II	3(3-0)
MGT-505	Fundamentals of Business Finance	3(3-0)
PKS-501	Pak Studies	2(2-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ECO-502	Principles of Macro Economics	3(3-0)
QRE-501	Quantitative Reasoning I	3(3-0)
MGT-509	Marketing Management	3(3-0)
HRM-511	Introduction to HRM	3(3-0)
MGT-514	Managerial Finance	3(3-0)
MGT-518	Business Law	3(3-0)
THQ-501	Translation of Holy Qurān	Non-Credited

## ADP Commerce

### Program Summary

Admissions: Fall  
 Program Duration: 2 years  
 Total Semesters: 4  
 Total Credit Hours: 68

### Career Prospects

- \* Business Analyst
- \* Marketing Researcher
- \* E-Commerce Specialist
- \* Import/Export Coordinator

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO-501	Principles of Micro Economics	3(3-0)
QRE-501	Quantitative Reasoning -I	3(3-0)
MGT-506	Business Communication 1	3(3-0)
MGT-504	Principles of Marketing	3(3-0)
FIN-501	Financial Accounting -II	3(3-0)
PKS-501	Pakistan Studies	2(2-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ECO-502	Principles of Macro Economics	3(3-0)
QRE-501	Quantitative Reasoning -II	3(3-0)
MGT-509	Marketing Management	3(3-0)
HRM-511	Introduction to HRM	3(3-0)
MGT-514	Managerial Finance	3(3-0)
MGT-518	Business Law	3(3-0)
THQ-501	Translation of Holy Quran -I	Non-Credited

## ADP Supply Chain Management

### Program Summary

Admissions: Fall  
 Program Duration: 2 years  
 Total Semesters: 4  
 Total Credit Hours: 68

### Career Prospects

- \* Supply Chain Manager
- \* Logistics Coordinator
- \* Procurement Specialist
- \* Operations Manager

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting- I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
MGT -520	Supply Chain Management	3(3-0)
QRE -501	Quantitative Reasoning -1	3(3-0)
MGT -521	Material Management in Supply Chain	3(3-0)
MGT -504	Principles of Marketing	3(3-0)
MGT -522	Supply Chain Performance	3(3-0)
MGT -523	Supply Chain Analytics	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ECO -502	Transportation & Logistics Management	3(3-0)
QRE -501	Quantitative Reasoning -II	3(3-0)
MGT -524	Production & Operation Management	3(3-0)
MGT -525	Supply Chains Quality Management	3(3-0)
MGT -509	Marketing Management	3(3-0)
PKS -501	Pakistan Studies	2(2-0)
THQ -501	Translation of Holy Quran -1	Non -Credited

## ADP International Sales & Marketing

### Program Summary

Admissions: Fall  
 Program Duration: 2 years  
 Total Semesters: 4  
 Total Credit Hours: 68

### Career Prospects

- \* International Sales Manager
- \* Marketing Manager
- \* Export Manager
- \* Global Business
- \* Development Manager

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting - I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO-501	Principles of Micro Economics	3(3-0)
QRE-501	Quantitative Reasoning -I	3(3-0)
MGT-510	Social Media Marketing	3(3-0)
MGT-504	Principles of Marketing	3(3-0)
MGT-511	International Business	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
MGT-505	Business Law	3(3-0)
QRE-501	Quantitative Reasoning -II	3(3-0)
MGT-506	Sales Management	3(3-0)
MGT-507	Production & Operation Management	3(3-0)
MGT-527	Personal Selling	3(3-0)
MGT-508	Ecommerce	3(3-0)
PKS-501	Pakistan Studies	2(2-0)
THQ-501	Translation of Holy Quran -I	Non-Credited

## ADP Hotel & Tourism Management

### Program Summary

Admissions: Fall  
 Program Duration: 2 years  
 Total Semesters: 4  
 Total Credit Hours: 68

### Career Prospects

- \* Hotel Manager
- \* Tour Operator
- \* Event Manager
- \* Travel Agent

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting - I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO-501	Principles of Micro Economics	3(3-0)
QRE-501	Quantitative Reasoning -I	3(3-0)
MGT-512	Introduction to Tourism & Hotel Management	3(3-0)
MGT-513	Tourism Marketing	3(3-0)
MGT-514	Tourism Management	3(3-0)
MGT-515	Tourism & Hotel Laws	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
MGT-516	Hospitality Operations	3(3-0)
QRE-501	Quantitative Reasoning -II	3(3-0)
MGT-517	Public Relations	3(3-0)
MGT-518	Restaurant Management	3(3-0)
MGT-519	Tourism Geography	3(3-0)
PKS-501	Pakistan Studies	2(2-0)
THQ-501	Translation of Holy Quran-I	Non-Credited

## Bachelors of Business Administration BBA

### Program Summary

Admission Fall & Spring  
Duration 4 years  
No. of Semesters 8  
Total Credit hours: 126

### Career Prospects

- \* Management Trainee
- \* Business Analyst
- \* Marketing Analyst
- \* Financial Analyst
- \* Human Resource Manager
- \* Operations Manager
- \* Entrepreneur
- \* Business Consultant
- \* Investment Banker
- \* Supply Chain Manager

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
SOC-501	Introduction to Sociology	2(2-0)
MGT-501	Introduction to Business	3(3-0)
HIS-501	Introduction to History	2(2-0)
ICT-501	Applications of Information & Communication Technologies	2(2-0)
ICT-501-P	Applications of Information & Communication Technologies LAB	1(0-1)
ICP-501	Ideology & Constitution of Pakistan	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-502	Expository Writing	3(3-0)
MGT-502	Financial Accounting - I	3(3-0)
ISL-501	Islamic Studies	2(2-0)
ES-501	Introduction to Environmental Sciences	2(2-0)
ES-501-P	Introduction to Environmental Sciences LAB	1(0-1)
MGT-503	Principles of Management	3(3-0)
ENT-501	Entrepreneurship	2(2-0)
CCE-501	Civics & Community Engagement	2(2-0)



SEMESTER 3		
Course Code	Course Title	Credit Hour
ECO -501	Principles of Micro Economics	3(3-0)
QRE -501	Quantitative Reasoning -I	3(3-0)
MGT -506	Business Communication I	3(3-0)
MGT -504	Principles of Marketing	3(3-0)
FIN -501	Financial Accounting -I	3(3-0)
PKS -501	Pak Studies	2(2-0)
MGT -505	Fundamentals of Business Finance	3(3-0)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ECO -502	Principles of Macro Economics	3(3-0)
QRE -501	Quantitative Reasoning -II	3(3-0)
MGT -509	Marketing Management	3(3-0)
HRM -511	Introduction to HRM	3(3-0)
MGT -514	Managerial Finance	3(3-0)
MGT -518	Business Law	3(3-0)
THQ -501	Translation of Holy Quran -I	Non -Credited
SEMESTER 5		
Course Code	Course Title	Credit Hour
MGT -526	International Business	3(3-0)
MIS -501	Management Information System	3(3-0)
MGT -519	Financial & Regulatory Institutions	3(3-0)
FIN -502	Financial Management	3(3-0)
MGT -521	Organizational Behavior	3(3-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
ECO -503	Managerial Economics	3(3-0)
MGT -524	Business Analytics	3(3-0)
MGT -522	Project Management	3(3-0)
MGT -523	Business Ethics	3(3-0)
MGT -520	Production & Operation Management	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
MGT -525	Business Research Methods	3(3-0)
MGT -527	Total Quality Management	3(3-0)
MGT -528	Semester project	3(3-0)
MGT -529	Specialization I	3(3-0)
MGT -530	Specialization II	3(3-0)
SEMESTER 8		
Course Code	Course Title	Credit Hour
MGT -531	Strategic Management	3(3-0)
MGT -533	Corporate Governance	3(3-0)
MGT -532	Specialization III	3(3-0)
MGT -534	Specialization IV	3(3-0)



## AREAS OF SPECIALIZATION

Finance		
Course Code	Course Title	Credit Hour
MGT-531	International Finance	3(3-0)
MGT-519	Financial & Regulatory Institutions	3(3-0)
MGT-528	Investment & Portfolio Management	3(3-0)
MGT-530	Financial Risk Management	3(3-0)
MGT-533	Corporate Governance	3(3-0)
MGT-522	Financial Statement Analysis	3(3-0)
MGT-526	Corporate Finance	3(3-0)
Marketing		
MKT-501	International Marketing	3(3-0)
MKT-502	Customer Relationship Management	3(3-0)
MKT-503	Services Marketing	3(3-0)
MKT-504	Consumer Behavior	3(3-0)
MKT-505	Advertising and Event Management	3(3-0)
MKT-506	Brand Management	3(3-0)
MKT-507	Sales Management	3(3-0)
Human Resource Management		
HRM-501	Performance Management	3(3-0)
HRM-502	Training and Development	3(3-0)
HRM-503	Strategic Human Resource Management	3(3-0)
HRM-504	Organizational Development	3(3-0)
HRM-505	Change Management	3(3-0)
HRM-506	Career Management	3(3-0)
HRM-507	Compensation and Reward Management	3(3-0)
HRM-507	Recruitment and selection/ staffing	3(3-0)

## Master of Business Administration (For Business Graduates)

### Program Summary

Admission      Fall & Spring  
Duration        2 years  
No. of Semesters   4  
Total Credit hours: 30

### Career Prospects

- \* Leading teams as managers and executives in corporate sectors.
- \* Providing business consulting for strategy development and operations.
- \* Managing entrepreneurial ventures and startups.
- \* Overseeing global business operations and supply chains.
- \* Working in leadership roles for non-profits and public sector organizations.
- \* Pursuing careers in financial management and advisory services.
- \* Enhancing business processes through project management and innovation.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MGT-701	Strategic Management	3(3-0)
MGT-702	Advanced Research Methodology	3(3-0)
FIN-701	Strategic Finance	3(3-0)
MGT-701	Strategic Management	3(3-0)



SEMESTER 2		
Course Code	Course Title	Credit Hour
MKT -701	Strategic Marketing	3(3-0)
XXX	Elective I	3(3-0)
XXX	Elective II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
XXX	Elective III	3(3-0)
XXX	Elective IV	3(3-0)
XXX	Thesis / Elective Courses (02)	6(6-0)
XXX	Elective III	3(3-0)

### AREAS OF SPECIALIZATION

Finance		
Course Code	Course Title	Credit Hour
FIN -702	Financial Institutions	3(3-0)
FIN -703	Investment & Portfolio Management	3(3-0)
FIN -704	Financial Reporting & Disclosure	3(3-0)
FIN -705	Corporate Finance	3(3-0)
FIN -706	SME Finance	3(3-0)
FIN -707	Risk Management	3(3-0)
FIN -708	Credit management	3(3-0)
FIN -709	Behavioral Finance	3(3-0)
FIN -710	Advanced Financial Management	3(3-0)
FIN -711	International Finance	3(3-0)
Marketing		
Course Code	Course Title	Credit Hour
MKT -702	Product and Brand Management	3(3-0)
MKT -703	International Marketing	3(3-0)
MKT -704	Digital Marketing	3(3-0)
MKT -705	Promotion and Advertisement Management	3(3-0)
MKT -706	Sales Management	3(3-0)
MKT -707	Services Marketing	3(3-0)
MKT -708	Distribute Management	3(3-0)
MKT -709	Customer Relationship Marketing	3(3-0)



Human Resource Management		
Course Code	Course Title	Credit Hour
HRM-701	Performance Management	3(3-0)
HRM-702	Training Intervention and Job Skills	3(3-0)
HRM-703	Recruitment and Selection	3(3-0)
HRM-704	Cross-Cultural Resource Management	3(3-0)
HRM-705	Incentives & Compensation Management	3(3-0)
HRM-706	Strategic Human Resource Management	3(3-0)
HRM-707	Leadership & Team Management	3(3-0)
HRM-708	Organizational Dynamics	3(3-0)
HRM-709	Conflicts and Negotiation Management	3(3-0)
HRM-710	Career Management	3(3-0)

## Master of Business Administration (For Non Business Graduates)

### Program Summary

Admission: Fall

Duration: 2 years

No. of Semesters: 4

Total Credit hours: 60

### Career Prospects

- \* Leading teams as managers and executives in corporate sectors.
- \* Providing business consulting for strategy development and operations.
- \* Managing entrepreneurial ventures and startups.
- \* Overseeing global business operations and supply chains.
- \* Working in leadership roles for non-profits and public sector organizations.
- \* Pursuing careers in financial management and advisory services.
- \* Enhancing business processes through project management and innovation.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MGT-701	Financial Accounting	3(3-0)
MGT-702	Introduction to Management	3(3-0)
MGT-703	Marketing Theory & Practice	3(3-0)
MGT-704	Business Mathematics & Statistics	3(3-0)
MGT-7005	Business Communication	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MGT-706	Management Theory & Practice	3(3-0)
MGT-707	Introduction to Human Resource Management	3(3-0)
MGT-708	Business Finance	3(3-0)
MGT-709	Marketing Management	3(3-0)
MGT-710	Managerial Economics	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
MGT-711	Strategic Marketing	3(3-0)
MGT-712	Strategic Management	3(3-0)
MGT-713	Strategic Finance	3(3-0)
MGT-714	Organizational Behavior	3(3-0)
MGT-715	Leadership Theory & Practice	3(3-0)



SEMESTER 4		
MGT-716	Advanced Research Methods	3(3-0)
XXX	Elective I	3(3-0)
XXX	Elective II	3(3-0)
XXX	Elective III	3(3-0)
XXX	Elective IV	3(3-0)

## AREAS OF SPECIALIZATION

Finance		
Course Code	Course Title	Credit Hour
FIN-701	Financial & Regulatory Institutions	3(3-0)
FIN-702	Investment & Portfolio Management	3(3-0)
FIN-703	Financial Reporting & Disclosure	3(3-0)
FIN-704	Corporate Finance	3(3-0)
FIN-705	SME Finance	3(3-0)
FIN-706	Risk Management	3(3-0)
FIN-707	Credit management	3(3-0)
FIN-708	Behavioral Finance	3(3-0)
FIN-709	Advanced Financial Management	3(3-0)
FIN-710	International Finance	3(3-0)
Marketing		
Course Code	Course Title	Credit Hour
MKT-701	Industrial Marketing	3(3-0)
MKT-702	International Marketing	3(3-0)
MKT-703	Digital Marketing	3(3-0)
MKT-704	Business to Business Marketing	3(3-0)
MKT-705	Industrial Marketing	3(3-0)
MKT-706	Services Marketing	3(3-0)
MKT-707	Advances in Marketing Research	3(3-0)
MKT-708	Advanced Topics in Marketing	3(3-0)
Human Resource Management		
Course Code	Course Title	Credit Hour
HRM-701	Performance Management	3(3-0)
HRM-702	Training Intervention and Job Skills	3(3-0)
HRM-703	Recruitment and Selection	3(3-0)
HRM-704	Cross-Cultural Resource Management	3(3-0)
HRM-705	Incentives & Compensation Management	3(3-0)
HRM-706	Strategic Human Resource Management	3(3-0)
HRM-707	Leadership & Team Management	3(3-0)
HRM-708	Organizational Dynamics	3(3-0)
HRM-709	Conflicts and Negotiation Management	3(3-0)
HRM-710	Career Management	3(3-0)



# MS Business Administration

## Program Summary

Admission: Fall

Duration: 2 years

No. of Semesters: 4

Total Credit hours: 30

## Career Prospects

- \* Marketing Manager – Develop strategies to promote products and increase sales
- \* HR Manager – Handle recruitment, employee training, and performance management.
- \* Finance Manager – Oversee financial reports, budgets, and investment plans
- \* Operations Manager – Streamline business processes for better efficiency.
- \* Project Manager – Plan, execute, and complete business projects on time
- \* Business Consultant – Provide expert advice to improve business operations.
- \* Entrepreneur – Launch and manage your own startup or business idea.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MGT-701	Strategic Management	3(3-0)
MGT-702	Advanced Research Methodology	3(3-0)
FIN-703	Strategic Finance	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MKT-704	Strategic Marketing	3(3-0)
XXX	Elective I	3(3-0)
XXX	Elective II	3(3-0)
SEMESTER S 3&4		
Course Code	Course Title	Credit Hour
XXX	Elective III	3(3-0)
XXX	Elective IV	3(3-0)
XXX	Thesis / Elective Courses (02)	6

## LIST OF ELECTIVES

Finance		
Course Code	Course Title	Credit Hour
FIN-702	Financial Institutions	3(3-0)
FIN-703	Investment & Portfolio Management	3(3-0)
FIN-704	Financial Reporting & Disclosure	3(3-0)
FIN-705	Corporate Finance	3(3-0)
FIN-706	SME Finance	3(3-0)
FIN-707	Risk Management	3(3-0)
FIN-708	Credit management	3(3-0)
FIN-709	Behavioral Finance	3(3-0)
FIN-710	Advanced Financial Management	3(3-0)
FIN-711	International Finance	3(3-0)
Marketing		
MKT-702	Product and Brand Management	3(3-0)
MKT-703	International Marketing	3(3-0)
MKT-704	Digital Marketing	3(3-0)
MKT-705	Promotion and Advertisement Management	3(3-0)
MKT-706	Sales Management	3(3-0)
MKT-707	Services Marketing	3(3-0)
MKT-708	Distribute Management	3(3-0)
MKT-709	Customer Relationship Marketing	3(3-0)



Human Resource Management		
HRM-701	Performance Management	3(3-0)
HRM-702	Training Intervention and Job Skills	3(3-0)
HRM-703	Recruitment and Selection	3(3-0)
HRM-704	Cross-Cultural Resource Management	3(3-0)
HRM-705	Incentives & Compensation Management	3(3-0)
HRM-706	Strategic Human Resource Management	3(3-0)
HRM-707	Leadership & Team Management	3(3-0)
HRM-708	Organizational Dynamics	3(3-0)
HRM-709	Conflicts and Negotiation Management	3(3-0)
HRM-710	Career Management	3(3-0)

## MS Economics

### Program Summary

Admission: Fall

Duration: 2 years

No. of Semesters: 4

Total Credit hours: 30

### Career Prospects

- \* Economic Analyst – Analyze market trends to guide policy or business decisions.
- \* Financial Analyst – Evaluate investment opportunities and financial data.
- \* Research Economist – Conduct economic research for institutions or think tanks.
- \* Policy Advisor – Advise government or organizations on economic policies.
- \* Banking Officer – Work in public or private banks in economic planning roles.
- \* Data Analyst – Interpret complex data sets for economic forecasting.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ECO-701	Advance d Microeconomics	3(3-0)
ECO-703	Econometric Methods 1	3(3-0)
XXX	Elective -1	3(3-0)
XXX	Elective -2	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ECO-702	Advance d Macroeconomics	3(3-0)
ECO-704	Econometric Methods – 2	3(3-0)
XXX	Elective - 1	3(3-0)
XXX	Elective -2	3(3-0)
SEMESTER S 3 & 4		
Course Code	Course Title	Credit Hour
XXX	Research Thesis / Elective Courses (02)	6(6-0)



## COMPULSORY COURSES

Course Code	Course Title	Credit Hour
ECO-701	Advance Microeconomics	3(3-0)
ECO-702	Advance Macroeconomics	3(3-0)
ECO-703	Econometric Methods – I	3(3-0)
ECO-704	Econometric Methods – II	3(3-0)

## ELECTIVE COURSES

Course Code	Course Title	Credit Hour
ECO -705	Issues in Development Economics	3(3-0)
ECO -706	Major Economic Issues in Pakistan Economy	3(3-0)
ECO -707	Public Sector Economics	3(3-0)
ECO -708	Advance Monetary Economics	3(3-0)
ECO -709	Topics in Labor Economics	3(3-0)
ECO -710s	Topics in International Economics	3(3-0)
ECO -711	Globalization and Economic Integration	3(3-0)
ECO -712	Topics in Islamic Economics	3(3-0)
ECO -713	Topics in Experimental Economics	3(3-0)
ECO -714	Topics in Environmental and Natural Resource Economics	3(3-0)
ECO -715	The Economics of Climate Change	3(3-0)
ECO -716	Topics in Economics of Happiness and Well -Being	3(3-0)
ECO -717	Issues in Health Economics	3(3-0)
ECO -718	Topics in Financial Economics	3(3-0)
ECO -719	Research Methodology in Economics	3(3-0)
ECO -720	Structural Equation Modelling	3(3-0)
ECO -721	Real Analysis	3(3-0)
ECO -722	Institutional Economics	3(3-0)



## FACULTY OF ENGINEERING & TECHNOLOGY

### Message From The Dean

It is an honour to welcome you to the Faculty of Engineering and Technology, Grand Asian University Sialkot, the only purpose-built university in the region having dedicated buildings, state-of-the-art laboratories, highly qualified competent faculty and latest curricula under iconic leadership. Presently, it consists of three departments: Electrical, Mechanical and Civil Engineering & Technology offering Bachelor Programs since 2013 and Master Programs since 2022. All programs are duly approved by HEC, PEC & NTC and are taught under the semester system.

Our graduates are fully capable to address industrial challenges and societal expectations. Our approach aims at producing engineers and researchers equipped with fundamental concepts and analytical tools of contemporary engineering domain with latest knowledge, engineering skills and competence of deliverance in dynamic and evolving engineering domains.

As the Dean of this esteemed faculty, I assure you that conducive environment of GAUS and dedicated team is providing realistic engineering education based on innovative pedagogical methods to those adopting engineering as a profession through a transformative educational journey to confront ever-evolving challenges of the tech-



**Prof. Dr. Muhammad Sharif Bhatti**  
PhD Civil Engineering



## FACULTY OF ENGINEERING & TECHNOLOGY

### Introduction

The Faculty of Engineering and Technology is dedicated to fostering innovation and excellence in engineering education. It aims to equip students with the technical skills and theoretical knowledge necessary to meet the challenges of a rapidly evolving technological landscape. The faculty emphasizes practical experience, interdisciplinary collaboration, and research that addresses real-world problems.

### Mission Statement:

To equip mechanical engineering students with advanced knowledge, innovation skills, and integrity by utilizing available resources and aligning education with the Sustainable Development Goals (SDGs).







## Department of Mechanical Engineering & Technology

### Introduction

Mechanical engineering is one of the most versatile disciplines that apply principles of science for design, modeling, manufacturing, installation, maintenance, operations and analysis of mechanical systems. Mechanical Engineering covers broad range of disciplines including Materials Science, Robotics, Thermal Science, Energy, Management, Aerospace, Automotive, Biomedical, and Marine Engineering. BSc Mechanical Engineering Program at GAUS will enable you to obtain fundamental knowledge in the science of Mechanical Engineering. GAUS provides a conducive environment for obtaining theoretical & practical knowledge through highly qualified and experienced faculty, state-of-the-art laboratories, modern curriculum and industrial exposure. Our graduates will be able to exhibit leadership skills in the field as well as maintain ethical values of professional practice. BSc Mechanical Engineering program is run under the guidelines of Higher Education Commission (HEC) and Pakistan Engineering Council (PEC). Those who are good at mathematics and physics, and have intuition towards exploring the physical phenomena, are advised to choose mechanical engineering at GAUS.

### Objectives

After the completion of the program, graduates will be able to:

PEO-1: Apply the knowledge to solve analytical and practical engineering problems.

PEO-2: Work for continuous socio-technical development of the society.

PEO-3: Exhibit strong communication, and managerial skills, as team leaders as well as team members

## Programs Being Offered

- B.Sc. Mechanical Engineering
- B.Sc. Mechanical Engineering Technology



## Message From HOD



Mechanical engineering is one of the most versatile and dynamic disciplines, applying the principles of science to the design, modeling, manufacturing, installation, maintenance, operations, and analysis of mechanical systems.

The BSc Mechanical Engineering program at Grand Asian University, Sialkot (GAUS), is designed to provide students with a solid foundation in the fundamental principles of mechanical engineering. With a modern curriculum aligned with the guidelines of the Higher Education Commission (HEC) and Pakistan Engineering Council (PEC), the program ensures that students are well-equipped to meet the demands of the industry. GAUS offers a conducive learning environment, where students benefit from the expertise of highly qualified and experienced faculty, access to state-of-the-art laboratories, and industrial exposure.

The Department of Mechanical Engineering houses a robust academic community within the Faculty of Engineering and Technology, offering a vibrant platform for aspiring mechanical engineers. Through a diligent and professional approach, we strive to transform our students into technically proficient and innovative graduates who can contribute to technological advancement at both national and international levels.

The students who have a strong aptitude for mathematics and physics and a curiosity to explore and understand the physical phenomena around us, mechanical engineering at GAUS provides the perfect pathway to success. I warmly welcome you to join one of the most ambitious departments of our university and embark on a journey toward making a meaningful impact in the field of mechanical engineering and beyond.

Let's build a future fueled by innovation and excellence!

**Dr. Liaquat Ali Azhar Najmi**

Assistant Professor

Incharge Department of Mechanical Engineering





# B.Sc. Mechanical Engineering

## Program Summary

Admissions: Fall  
Program Duration: 4 years  
Total Semesters: 8  
Total Credit Hours: 138

## Career Prospects

- \* Aerospace
- \* Energy
- \* Manufacturing
- \* Robotics, and construction.
- \* Design and development,
- \* Research and innovation
- \* Production management
- \* Quality control
- \* Renewable energy
- \* Automation
- \* Sustainable technologies

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ISL-501/ETH-501	Islamic Studies/ Ethics	2(2-0)
MTH-520	Calculus and Analytical Geometry	3(3-0)
ENG-501	Functional English	3(3-0)
PHY-510	Applied Chemistry/ Applied Physics	2(2-0)
PHY-510-P	Applied Chemistry/ Applied PhysicsAB	1(0-1)
ICT-501	Applications of ICT	2(2-0)
ICT-501-P	Applications of ICTLAB	1(0-1)
ME-610	Engineering Drawing and Graphics	1(1-0)
ME-610-P	Engineering Drawing and GraphicsAB	1(0-1)
ME-620	Workshop Practice	1(1-0)
ME-620-P	Workshop PracticeLAB	1(0-1)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MTH-527	Linear Algebra & Differential Equations	3(3-0)
EE-600	Electrical Engineering	2(2-0)
ME-611-P	Computer Aided DrawingLAB	1(0-1)
ME-612	Engineering Mechanics: (Statics)	3(3-0)
ME-600	ThermodynamicsI	3(3-0)
ME-621	Materials Engineering	2(2-0)
CCE-501	Civics and Community Engagement	2(2-0)
ICP-501	Ideology and Constitution of Pakistan	2(2-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
ME-613	Engineering MechanicsII: (Dynamics)	2(2-0)
ME-614	Mechanics of MaterialsI	3(3-0)
CS-501	Computer Systems and Programming	2(2-0)
CS-501-P	Computer Systems and Programming	1(0-1)
MTH-623	Complex Variables & Transforms	3(3-0)
ME-602	Fluid MechanicsI	3(3-0)
ME-601	ThermodynamicsII	2(2-0)
ME-613-P	Engineering MechanicsLAB	1(0-1)
ME-601-P	ThermodynamicsLAB	1(0-1)
SEMESTER 4		
Course Code	Course Title	Credit Hour
ME-630	Measurement and Instrumentation	2(2-0)
ME-615	Mechanics of MaterialsII	3(3-0)
ME-603	Fluid MechanicsII	2(2-0)
ME-616	Machine DesignI	2(2-0)
EE-634	Electronics Engineering	2(2-0)
EE-635-P	Electrical and Electronics EngineeringLAB	1(0-1)
ENG-502	Expository Writing	3(3-0)
ME-603-P	Fluid MechanicsLAB	1(0-1)
ME-615-P	Mechanics of MaterialsLAB	1(0-1)



SEMESTER 5		
Course Code	Course Title	Credit Hour
ME-622	Manufacturing Processes	2(2-0)
ME-622-P	Manufacturing Processes LAB	1(0-1)
ME-618	Mechanics of Machines	2(2-0)
ME-631	Control Engineering	2(2-0)
ME-604	Heat & Mass Transfer	3(3-0)
CS-521	Applied AI & Machine Learning	2(2-0)
CS-521-P	Applied AI & Machine Learning LAB	1(0-1)
ME-631-P	M&I and Control LAB	1(0-1)
MTH-657	Numerical Analysis	2(2-0)
MTH-657-P	Numerical Analysis LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
MGT-511	Social Sciences Elective (HRM)	2(2-0)
ME-605	Heating, Ventilation and Air Conditioning	3(3-0)
ME-617	Machine Design -II	2(2-0)
ME-619	Finite Element Methods	2(2-0)
ME-619-P	Finite Element Methods LAB	1(0-1)
ME-605-P	HVAC and H&M LAB	1(0-1)
STS-503	Probability & Stochastic/ Math Elective	3(3-0)
MGT-320	Project Management	2(2-0)
PKS-501	Pakistan Studies	2(2-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
ME-632	Mechanical Vibrations	3(3-0)
ME-606	Internal Combustion Engines	2(2-0)
ME-606-P	Internal Combustion Engines LAB	1(0-1)
ME-640	Technical Elective -I	3/2(3/2-0/0)
ME-640-P	Technical Elective -I LAB	1(0/0-0/1)
ENG-602	Arts and Humanities Elective (Communication and Presentation Skill)	2(2-0)
ME-632-P	Mechanisms and Mechanical Vibration LAB	1(0-1)
ME-698-P	Final Year Design Project -I	3(0-3)
SEMESTER 8		
Course Code	Course Title	Credit Hour
ME-620	Reverse Engineering and Inspection Techniques	2(2-0)
ME-620-P	Reverse Engineering and Inspection Techniques LAB	1(0-1)
ME-633	Mechatronics & Robotics Engineering	2(2-0)
ME-633-P	Mechatronics & Robotics Engineering LAB	1(0-1)
ME-641	Technical Elective -II	3/2(3/2-0/0)
ME-641-P	Technical Elective -II LAB	1(0/0-0/1)
ENT-501	Entrepreneurship	2(2-0)
ME-623	Occupational Health & Safety	1(1-0)
ME-699-P	Final Year Design Project -II	3(0-3)
Group of TECHNICAL ELECTIVE Courses		
ME-640	Power Plant	2(2-0)
ME-640-P	Power Plant LAB	1(0-1)
ME-641	Renewable Energy Technology	3(3-0)
ME-642	Automotive Engineering	3(3-0)



## B.Sc. Mechanical Engineering & Technology

### Program Summary

Admissions: Fall  
Program Duration: 4 years  
Total Semesters: 8  
Total Credit Hours: 136

### Career Prospects

- \* The graduate mechanical technologists can be better utilized in various local and global industries in the capacity of:  
Design, production, maintenance, quality control technologists and planning
- \* These industries include but not limited to  
Automobile, Aerospace, Chemical Processing, Nuclear, Power Generation, Marine, Manufacturing and Production, Agriculture and Automation and Robotics.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MH-112	Islamic Studies/ Professional Ethics	2(2-0)
MS-113	Applied Physics	2(2-0)
MS-113-P	Applied Physics LAB	1(0-1)
MS-123	Applied Mathematics -I	3(3-0)
MS-133	Applied Chemistry	2(2-0)
MS-133-P	Applied Chemistry LAB	1(0-1)
MS-143	Introduction to Computer Fundamentals	1(0-1)
MS-143-P	Introduction to Computer Fundamentals LAB	2(0-2)
MT-113	Workshop Technology	1(1-0)
MT-113-P	Workshop Technology LAB	2(0-2)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MS-153	Applied Mathematic - II	2(2-0)
MH-122	Pakistan Studies	2(2-0)
MT-124	Technical Drawing and CAD -1	2(2-0)
MT-124-P	Technical Drawing and CAD -1 LAB	2(0-2)
MT-134	Applied Thermo - dynamics - 1	2(2-0)
MT-134-P	Applied Thermo - dynamics - 1 LAB	2(0-2)
MT-144	Basic Electrical & Electronics	2(2-0)
MT-144-P	Basic Electrical & Electronics LAB	2(0-2)
MT-113	Workshop Technology	1(1-0)
MT-113-P	Workshop Technology LAB	2(0-2)
SEMESTER 3		
Course Code	Course Title	Credit Hour
MH-213	Communication Skills	2(2-0)
MT-213	CAD - II	2(2-0)
MT-223	Industrial Material	2(2-0)
MT-223-P	Industrial Material LAB	1(0-1)
MT-233	Mechanics of Material	2(2-0)
MT-233-P	Mechanics of Material LAB	1(0-1)
MT-243	Applied Thermodynamics - II	2(2-0)
MT-243-P	Applied Thermodynamics - II LAB	1(0-1)



SEMESTER 4		
Course Code	Course Title	Credit Hour
MT-253	Machine Design	3(3-0)
MT-264	Fluid Mechanics	2(2-0)
MT-264-P	Fluid Mechanics LAB	2(0-2)
MT-273	Engineering Statics	2(2-0)
MT-273-P	Engineering Statics LAB	1(0-1)
MS-213	Probability and Statistics	3(3-0)
MM-212	Total Quality Management	2(2-0)
MH-223	Technical Report Writing	3(3-0)
SEMESTER 5		
Course Code	Course Title	Credit Hour
MT-313	Heat Transfer	2(2-0)
MT-313	Heat Transfer	1(0-1)
MT-324	I C Engine	2(2-0)
MT-324	I C Engine	2(0-2)
MT-333	Dynamics	2(2-0)
MT-333	Dynamics	1(0-1)
MT-343	Manufacturing Processes	2(2-0)
MT-343	Manufacturing Processes	1(0-1)
MM-313	Project Management	3(3-0)
MH-312	Economics	2(2-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
MT-353	Instrumentation and Control	2(2-0)
MT-353-P	Instrumentation and Control LAB	1(0-1)
MT-363	Mechanical Vibration	2(2-0)
MT-363-P	Mechanical Vibration LAB	1(0-1)
MT-373	Refrigeration & Air Conditioning	2(2-0)
MT-373-P	Refrigeration & Air Conditioning LAB	1(0-1)
MT-384	Material Handling and Safety	3(3-0)
MT-384	Material Handling and Safety	1(0-1)
MT-393-P	Project I	3(0-3)
MT-3103	Project II	3(0-3)
SEMESTER 7		
Course Code	Course Title	Credit Hour
MT-4116-P	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0-16)
SEMESTER 8		
Course Code	Course Title	Credit Hour
MT-4116-P	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0-16)





## Department of Electrical Engineering & Technology

### Introduction

Electrical Engineering is a field of Engineering that deals with study and application of principles of electricity, electronics, and magnetism. Electrical power is the backbone of modern industrial society and is expected to remain so for the foreseeable future. Electricity plays a very vital role to contribute to the socio-economic conditions in the country. The department of Electrical Engineering realizing the importance of this subject and has taken a step forward envisioning the state-of-the-art education through its well-designed courses to produce the competent engineers in the market.

Electrical Engineering and Technology department admits 80 undergraduate students each year and demand of this discipline is growing with each passing year. This department has recently been refurbished along with up gradation of its laboratories after arrival of the latest modern lab-equipment.

### Objectives

- delivering rigorous academic programs that prepare students for successful careers in engineering and technology.
- engaging in cutting-edge research that contributes to technological advancement and societal needs.
- establishing partnerships with electrical & electronics industries to enhance educational relevance and create opportunities for students.
- applying the knowledge to solve analytical and practical engineering problems.
- work for continuous socio-technical development of the society.

### Programs Being Offered

- B.Sc. Electrical Engineering
- B.Sc. Electrical Engineering Technology
- M.Sc. Electrical Engineering (Electronics)
- M.Sc. Electrical Engineering (Communication & Networks)



## Message From HOD



Electrical Engineering is a fascinating and dynamic field that focuses on the study and application of electricity, electronics, and magnetism, serving as the foundation for countless innovations and technological advancements.

Recognizing the significance of this discipline, the Department of Electrical Engineering is committed to providing state-of-the-art education through a meticulously designed curriculum. Our courses are tailored to produce highly competent and innovative engineers, equipped to meet the challenges of the evolving global market.

In order to maintain our commitment to excellence, the department has undergone significant upgrades, including the refurbishment of facilities and the installation of modern laboratory equipment. These advancements ensure that our students have access to the latest tools and technologies, enabling them to gain hands-on experience in real-world scenarios.

Our mission is to nurture future leaders in Electrical Engineering who possess the technical expertise, problem-solving skills, and ethical grounding needed to address contemporary challenges.

Join us at the Department of Electrical Engineering to embark on a journey of innovation, where you will have the opportunity to contribute to the technological advancements that shape our world. Together, we build the future, powered by electricity and inspired by innovation.

**Prof. Dr. Aftab Hussain**  
PhD Electrical Engineering





# B.Sc. Electrical Engineering

## Program Summary

Admissions: Fall  
Program Duration: 4 years  
Total Semesters: 8  
Total Credit Hours: 135

## Career Prospects

- \* Artificial Intelligence and Machine Learning
- \* Biological and Medical Devices and Systems
- \* Communications Systems
- \* Computer Architecture
- \* Computational Fabrication and Manufacturing
- \* Educational Technology
- \* Electronic, Magnetic, Optical and Quantum Materials
- \* and Devices
- \* Energy
- \* Integrated Circuits and Systems
- \* Nanoscale Materials, Devices, and Systems
- \* Robotics
- \* Signal Processing
- \* Systems and Networking
- \* Systems Theory, Control, and Autonomy

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ENG-501	Functional English	3(3-0)
MTH-520	Calculus & Analytical Geometry/Applied Calculus	3(3-0)
EE-601	Linear Circuit Analysis	3(3-0)
EE-601-P	Linear Circuit Analysis LAB	1(0-1)
ICT-501	Application of Information & Communication Technology	2(2-0)
ICT-501-P	Application of Information & Communication Technology LAB	1(0-1)
ME-634-P	Engineering Drawing LAB	1(0-1)
PHY-510	Applied Physics	2(2-0)
PHY-510-P	Applied Physics LAB	1(0-1)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MTH-609	Differential Equation	3(3-0)
MTH-521	Math's /Natural Science Elective (Discrete Mathematics)	3(3-0)
ISL-501	(Islamic Studies /Ethics)	2(2-0)
ICP-501	Ideology & constitution of Pakistan	2(2-0)
EE-602	Computer Programming	3(3-0)
EE-602-P	Computer Programing LAB	1(0-1)
ME-607	Thermodynamics	3(3-0)
EE-603-P	Electrical Workshop Practice LAB	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
MTH-623	Complex Variables & Transforms	3(3-0)
ENG-502	(Expository writing)	3(3-0)
EE-604	Digital Logic Design	3(3-0)
EE-604-P	Digital Logic Design LAB	1(0-1)
EE-605	Data Structures and Algorithms	3(3-0)
EE-605-P	Data Structures and Algorithms LAB	1(0-1)
EE-606	Electrical Network Analysis	3(3-0)
EE-606-P	Electrical Network Analysis LAB	1(0-1)
SEMESTER 4		
Course Code	Course Title	Credit Hour
MGT-320	Engineering Management (project management)	2(2-0)
MTH-530	Linear Algebra	3(3-0)
HU-501	(Arts & Humanities Elective (Professional Ethics)	2(2-0)
EE-607	Probability Methods in Engineering	3(3-0)
EE-608	Signal & Systems	3(3-0)
EE-608-P	Signal & Systems LAB	1(0-1)
EE-609	Electronics Devices & Circuits	3(3-0)
EE-609-P	Electronics Devices & Circuits LAB	1(0-1)
THQ-501	Teaching of Holy Quran	0(0-0)



SEMESTER 5		
Course Code	Course Title	Credit Hour
EE-610	Electrical Machines	3(3-0)
EE-610-P	Electrical Machines LAB	1(0-1)
EE-611	Microprocessors & Interfacing	3(3-0)
EE-611-P	Microprocessors & Interfacing LAB	1(0-1)
EE-612	Communications Systems	3(3-0)
EE-612-P	Communications Systems LAB	1(0-1)
CCE -501	Civics & Community Engagement	2(2-0)
EE-613	Electromagnetic Theory	3(3-0)
EE-629	Occupational Health & Safety	1(1-0)
SEMESTER 6		
Course Code	Course Title	Credit Hour
EE-614	Linear Control Systems	3(3-0)
EE-614-P	Linear Control Systems LAB	1(0-1)
EE-615	Power Distribution & Utilization	3(3-0)
EE-615-P	Power Distribution & Utilization LAB	1(0-1)
EE-616	Computer Communication Networks	3(3-0)
EE-640	Engineering Economics	3(3-0)
SEMESTER 7		
Course Code	Course Title	Credit Hour
EE-617	Operating System	3(3-0)
EE-617-P	Operating System LAB	1(0-1)
EE-618	Data Communication	3(3-0)
EE-618-P	Data Communication LAB	1(0-1)
EE-619	Industrial control systems	3(3-0)
EE-619-P	Industrial control systems LAB	1(0-1)
ENT -501	Entrepreneurship	2(2-0)
EE-699a	Project (Phase -I)	2(0-2)
SEMESTER 8		
Course Code	Course Title	Credit Hour
EE-622	Renewable Energy systems	3(3-0)
EE-623	Artificial Intelligence	3(3-0)
MGT -427	Total Quality Management	2(2-0)
EE-624	Integrated Electronic Circuits	3(3-0)
EE-624-P	Integrated Electronic Circuits LAB	1(0-1)
EE-699b	Project (Phase -II)	4(0-4)



## B.Sc. Electrical Engineering & Technology

### Program Summary

Admissions: Fall

Program Duration: 4 years

Total Semesters: 8

Total Credit Hours: 137

### Career Prospects

The graduate mechanical technologists can be better utilized in various local and global industries in the capacity of design, production, maintenance, quality control and planning technologists. These industries include but not limited to Automobile, Aerospace, Chemical Processing, Nuclear, Power Generation, Marine, Manufacturing and Production, Agriculture and Automation and Robotics.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
ISL-501	Islamic Studies / Professional Ethics	2(2-0)
MTH-658	Applied Mathematics -I	3(3-0)
PHY-510	Applied Physics	2(2-0)
ES-123-P	Applied Physics LAB	1(0-1)
ET-601	Linear Circuits Analysis	2(2-0)
ET-601-P	Linear Circuits Analysis LAB	1(0-1)
MT-634	Engineering Drawing	1(1-0)
MT-634-P	Engineering Drawing LAB	2(0-2)
ET-602	Introduction to Computer Fundamentals	1(1-0)
ET-602-P	Introduction to Computer Fundamentals LAB	2(0-2)
SEMESTER 2		
Course Code	Course Title	Credit Hour
ENG-510	Communication Skills	3(3-0)
PKS -501	Pakistan Studies	2(2-0)
ET-605	Electronics	2(2-0)
ET-605-P	Electronics Lab	2(0-2)
MT-600	Basic Mechanical Technology	2(2-0)
MT-600-P	Basic Mechanical Technology LAB	1(0-1)
MTH-659	Applied Mathematics – II	3(3-0)
ET-606	Electrical Machines – I	2(2-0)
ET-606-P	Electrical Machines – I LAB	1(0-1)
SEMESTER 3		
Course Code	Course Title	Credit Hour
ET-607	Power Generation Systems	2(2-0)
ENG-506	Technical Report Writing	3(3-0)
ET-608	Electrical Instruments and Measurements	2(2-0)
ET-608-P	Electrical Instruments and Measurements LAB	2(0-2)
ET-609	Electrical Machine II	2(2-0)
ET-609-P	Electrical Machine II LAB	2(0-2)
ET-610	Digital Electronics	2(2-0)
ET-610-P	Digital Electronics LAB	2(0-2)



SEMESTER 4		
Course Code	Course Title	Credit Hour
ET-611	AC Circuits Analysis	2(2-0)
ET-611-P	AC Circuits Analysis LAB	2(0-2)
ET-612	Electro -Magnetic Fields	2(2-0)
ET-613	Electrical Power Transmission	2(2-0)
ET-613-P	Electrical Power Transmission LAB	1(0-1)
ET-614	Electrical Power Distribution and Utilization	2(2-0)
ET-614-P	Electrical Power Distribution and Utilization LAB	1(0-1)
ET-615	Power Electronics	2(2-0)
ET-615-P	Power Electronics LAB	2(0-2)
SEMESTER 5		
Course Code	Course Title	Credit Hour
ET-616	Micro -Processor Theory & Interfacing	2(2-0)
ET-616-P	Micro -Processor Theory & Interfacing LAB	1(0-1)
ET-617	Switch Gear & Protective Devices	2(2-0)
ET-617-P	Switch Gear & Protective Devices LAB	1(0-1)
ET-618	Communications Technology	2(2-0)
ET-618-P	Communications Technology LAB	2(0-2)
ET-619	Control Technology	2(2-0)
ET-619-P	Control Technology LAB	1(0-1)
MGT -427	Total Quality Management	2(2-0)
ET-620	High Voltage Technology	2(2-0)
ET-620-P	High Voltage Technology LAB	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
MGT -320	Project Management	3(3-0)
ET-621	Power System Analysis	2(2-0)
ET-622	Data & Computer Communication	2(2-0)
ET-622-P	Data & Computer Communication LAB	2(0-2)
ET-623	Industrial Drives & PLC	2(2-0)
ET-623-P	Industrial Drives & PLC LAB	2(0-2)
ET-698a	Project	3(0-3)
SEMESTER 6 THIRD YEAR SUMMER PROJECT WORK		
Course Code	Course Title	Credit Hour
ET-698b	Project (Continue)	3(0-3)
SEMESTER 7		
Course Code	Course Title	Credit Hour
ET-699a	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0 -16)
SEMESTER 8		
Course Code	Course Title	Credit Hours
ET-699b	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0 -16)



## M.Sc. Electrical Engineering (Electronics)

### Program Summary

Admissions: Fall  
Program Duration: 2 years  
Total Semesters: 4  
Total Credit Hours: 60

### Career Prospects

- \* Artificial Intelligence and Machine Learning
- \* Biological and Medical Devices and Systems
- \* Communications Systems
- \* Computer Architecture
- \* Computational Fabrication and Manufacturing
- \* Educational Technology
- \* Electronic, Magnetic, Optical and Quantum Materials
- \* and Devices
- \* Energy
- \* Integrated Circuits and Systems
- \* Nanoscale Materials, Devices, and Systems
- \* Robotics
- \* Signal Processing
- \* Systems and Networking
- \* Systems Theory, Control, and Autonomy

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
EE-5201	Semiconductor Materials and Technology	3(3-0)
EE-5202	Integrated Circuit Design	3(3-0)
EE-5203	Embedded Systems	3(3-0)
EE-5003	Random Variables and Stochastic Processes	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
EE-5208	FPGA based System Design	3(3-0)
EE-5207	Advanced Digital Design	3(3-0)
EE-5209	VLSI Testing and Verification	3(3-0)
EE-5001	Research Methodology	3(3-0)
SEMESTERS 3 & 4		
Course Code	Course Title	Credit Hour
EE-5300	Research and Thesis	6(0-6)





## M.Sc. Electrical Engineering (Communication & Networks)

### Program Summary

Admissions: Fall

Program Duration: 2 years

Total Semesters: 4

Total Credit Hours: 60

### Career Prospects

- \* Artificial Intelligence and Machine Learning
- \* Biological and Medical Devices and Systems
- \* Communications Systems
- \* Computer Architecture
- \* Computational Fabrication and Manufacturing
- \* Educational Technology
- \* Electronic, Magnetic, Optical and Quantum Materials
- \* and Devices
- \* Energy
- \* Integrated Circuits and Systems
- \* Nanoscale Materials, Devices, and Systems
- \* Robotics
- \* Signal Processing
- \* Systems and Networking
- \* Systems Theory, Control, and Autonomy

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
EE-5303	Computer Networks	3(3-0)
EE-5302	Digital Communication	3(3-0)
EE-5004	Numerical Techniques	3(3-0)
EE-5003	Random Variables and Stochastic Processes	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
EE-5310	Optical Communication	3(3-0)
EE-5309	Wireless communication	3(3-0)
EE-5312	Error Control Coding	3(3-0)
EE-5001	Research Methodology	3(3-0)
SEMESTERS 3 & 4		
Course Code	Course Title	Credit Hour
EE-5300	Research and Thesis	6(0-6)







## Department of Civil Engineering

### Introduction

Civil engineering is the branch of Engineering that will teach you as to how to develop and manage our society for a better future. The buildings, bridges, dams and other facilities are designed, constructed and managed by Civil Engineers that always remain a sign of pride and professional satisfaction for them. At the Grand Asian University, Sialkot, civil engineering curriculum has been developed to include all the modern aspects of this engineering field to be taught under the Outcome Based Education (OBE) System.

### Objectives

- delivering rigorous academic programs that prepare students for successful careers in engineering and technology.
- engaging in cutting-edge research that contributes to technological advancement and societal needs.
- establishing partnerships with civil and construction industries to enhance educational relevance and create opportunities for students.
- applying the knowledge to solve analytical and practical engineering problems.
- work for continuous socio-technical development of the society.

### Programs Being Offered

- B.Sc. Civil Engineering
- B.Sc. Civil Engineering Technology



## Message From HOD



Civil Engineering is one of the most vital and dynamic branches of Engineering, shaping the foundation of modern society and paving the way for sustainable development. It is a field that combines technical expertise, creative problem-solving, and environmental stewardship to build the world around us. Every structure designed, built and maintained by civil engineers stands as a testament to their dedication, innovation, and professional pride.

At the Grand Asian University, Sialkot, the Department of Civil Engineering is committed to nurturing the next generation of visionary Engineers. Our curriculum is thoughtfully designed to encompass all modern advancements and emerging trends in this ever-evolving discipline. Delivered under the globally recognized Outcome-Based Education (OBE) System, our program ensures that students acquire not only technical knowledge but also the practical skills, leadership qualities and ethical standards required to excel in

their careers. Our department offers state-of-the-art laboratories, project-based learning opportunities, and exposure to real-world challenges through internships and collaborations with industry leaders.

As you embark on this transformative journey with us, I encourage you to embrace the challenges and opportunities this field offers. Civil Engineering is not just a profession but a commitment to building a better future for generations to come. Together, let us strive to create solutions that stand the test of time and leave a lasting legacy of progress and excellence.

**Prof. Dr. Muhammad Sharif Bhatti**  
PhD Civil Engineering





# B.Sc. Civil Engineering

## Program Summary

Admissions: Fall  
Program Duration: 4 years  
Total Semesters: 8  
Total Credit Hours: 138

## Career Prospects

\* Construction/design of buildings,  
Highways, Dams, Bridges,  
\* Irrigation network and water  
supply systems.  
\* Research based projects

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
CE-601	Civil Engineering Materials	2(2-0)
CE-601-P	Civil Engineering Materials . . .	1(0-1)
CE-602	Applied Physics & Electro-Mechanical Fundamentals	2(2-0)
CE-602-P	Applied Physics & Electro-Mechanical Fundamentals	1(0-1)
CE-603	Engineering Drawing	1(1-0)
CE-603-P	Engineering Drawing LAB	2(0-2)
ENG-501	Functional English	3(3-0)
QRE-501	Quantitative Reasoning -I	3(3-0)
ICT-503	Applications of ICT	2(2-0)
ICT-503-P	Applications of ICT LAB	1(0-1)
SEMESTER 2		
Course Code	Course Title	Credit Hour
CE-604	Engineering Surveying	2(2-0)
CE-604-P	Engineering Surveying . . .	1(0-1)
CE-631	Geology for Engineers	2(2-0)
ISL-501	Islamic Studies/ Ethics	2(2-0)
CE-621	Engineering Mechanics	2(2-0)
CE-621-P	Engineering Mechanics . . .	1(0-1)
ICP-601	Ideology and Constitution of Pakistan	2(2-0)
CE-605	Computer Programming	2(2-0)
CE-605-P	Computer Programming LAB	1(0-1)
QRE-502	Quantitative Reasoning -II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CE-606	Advanced Engineering Surveying	2(2-0)
CE-606-P	Advanced Engineering Surveying LAB	1(0-1)
CE-651	Fluid Mechanics	2(2-0)
CE-651-P	Fluid Mechanics LAB	1(0-1)
CE-622	Mechanics of Solids -I	2(2-0)
CE-622-P	Mechanics of Solids -I LAB	1(0-1)
CE-623	Structural Analysis -I	3(3-0)
MTH-504	Advanced Calculus	3(3-0)
ENG-502	Expository Writing	3(3-0)



SEMESTER 4		
Course Code	Course Title	Credit Hour
CT-264	Transportation Engineering	2(2-0)
CT-264-P	Transportation Engineering . .	2(0-2)
CT-274	Water Supply & Waste Water Management	2(2-0)
CT-274-P	Water Supply & Waste Water Management . .	2(0-2)
CM-213	Environmental Management	2(2-0)
CM-213-P	Environmental Management . .	1(0-1)
CT-283	Theory of Structures	2(2-0)
CT-283-P	Theory of Structures . .	1(0-1)
CH-223	Technical Report Writing	3(3-0)
SEMESTER 5		
Course Code	Course Title	Credit Hour
CT-313	Hydrology	2(2-0)
CT-313-P	Hydrology . .	1(0-1)
CT-323	Reinforced Concrete Structures	2(2-0)
CT-323-P	Reinforced Concrete Structures . .	1(0-1)
CT-333	Construction and Hydraulic Machinery	2(2-0)
CT-333-P	Construction and Hydraulic Machinery . .	1(0-1)
CT-343	Computer Aided Building Modeling and Design	1(1-0)
CT-343-P	Computer Aided Building Modeling and Design . .	2(0-2)
CT-353	Foundations Engineering	2(2-0)
CT-353-P	Foundations Engineering . .	1(0-1)
CM-313	Project Management	3(0-3)
SEMESTER 6		
Course Code	Course Title	Credit Hour
CT-363	Pre-stressed & Precast concrete	2(2-0)
CT-363-P	Pre-stressed & Precast Concrete . .	1(0-1)
CT-373	Geology & Earthquake Engineering	2(2-0)
CT-373-P	Geology & Earthquake Engineering . .	1(0-1)
CT-383	Irrigation and Hydraulic Structures	2(2-0)
CT-383-P	Irrigation and Hydraulic Structures . .	1(0-1)
CT-393	Steel Structures	2(2-0)
CT-393-P	Steel Structures . .	1(0-1)
CT-3103	Project	3(0-3)
CT-3113	Project (Continue)	3(0-3)
SEMESTER 7		
Course Code	Course Title	Credit Hour
CT-4116	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0-16)
SEMESTER 8		
Course Code	Course Title	Credit Hour
CT-4216	16 Weeks Supervised Industrial/ Field Training (8x5=40 Hrs / Week)	16(0-16)



## B.Sc. Civil Engineering & Technology

### Program Summary

Admissions: Fall  
Program Duration: 4 years  
Total Semesters: 8  
Total Credit Hours: 137

### Career Prospects

Civil engineering technologists have become experts in creating sustainable and environmentally friendly buildings and systems. Multiplied over many communities, the energy and emissions savings can make a real difference in the environment. Civil engineering is open to many career opportunities and handles different types of projects like construction and rehabilitation of buildings, roadways, railways, skyscrapers, urban establishments, agricultural storages and development of new materials and procedures etc.

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
CH-112	Islamic Studies / Professional Ethics	2(2-0)
CS-113	Applied Mathematics-I	3(3-0)
CS-123	Introduction to Computer Fundamentals	1(1-0)
CS-123-P	Introduction to Computer Fundamentals . . .	2(0-2)
CT-113	Civil Engineering Drawing	1(1-0)
CT-113-P	Civil Engineering Drawing LAB	2(0-2)
CT-124	Surveying	2(2-0)
CT-124-P	Surveying LAB	2(0-2)
CM-112	Occupational Health & Safety Management	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
CT-134	Concrete Technology	2(2-0)
CT-134-P	Concrete Technology LAB	2(0-2)
CH-123	Communication Skills	3(3-0)
CT-144	Applied Mechanics	2(2-0)
CT-144-P	Applied Mechanics . . .	2(0-2)
CT-154	Materials and Methods of Construction	2(2-0)
CT-154-P	Materials and Methods of Construction . . .	2(0-2)
CS-133	Applied Mathematics - II	3(3-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
CT-212	Introduction to Architecture and Town Planning	2(2-0)
CH-212	Pakistan Studies	2(2-0)
CT-223	Quantity Surveying and Contract Documents	1(1-0)
CT-223-P	Quantity Surveying and Contract Documents LAB	2(0-2)
CT-233	Soil Mechanics	2(2-0)
CT-233-P	Soil Mechanics LAB	1(0-1)
CT-243	Fluid Mechanics	2(2-0)
CT-243-P	Fluid Mechanics LAB	1(0-1)
CT-254	Mechanics of Solids	2(2-0)
CT-254-P	Mechanics of Solids LAB	2(0-2)



SEMESTER 5		
Course Co de	Course Title	Credit Hour
CT-313	Hydrology	2(2-0)
CT-313-P	Hydrology . . . .	1(0-1)
CT-323	Reinforced Concrete Structures	2(2-0)
CT-323-P	Reinforced Concrete Structures . . . .	1(0-1)
CT-333	Construction and Hydraulic Machinery	2(2-0)
CT-333-P	Construction and Hydraulic Machinery . . . .	1(0-1)
CT-343	Computer Aided Building Modeling and Design	1(1-0)
CT-343-P	Computer Aided Building Modeling and Design . . . .	2(0-2)
CT-353	Foundations Engineering	2(2-0)
CT-353-P	Foundations Engineering . . . .	1(0-1)
CM-313	Project Management	3(0-3)
SEMESTER 6		
Course Co de	Course Title	Credit Hour
CT-363	Pre-stressed & Precast concrete	2(2-0)
CT-363-P	Pre-stressed & Precast Concrete . . . .	1(0-1)
CT-373	Geology & Earthquake Engineering	2(2-0)
CT-373-P	Geology & Earthquake Engineering . . . .	1(0-1)
CT-383	Irrigation and Hydraulic Structures	2(2-0)
CT-383-P	Irrigation and Hydraulic Structures . . . .	1(0-1)
CT-393	Steel Structures	2(2-0)
CT-393-P	Steel Structures . . . .	1(0-1)
CT-3103	Project	3(0-3)
CT-3113	Project (Continue)	3(0-3)
SEMESTER 7		
Course Co de	Course Title	Credit Hour
CT-4116	16 Weeks Supervised Industrial / Field Training (8x5=40 Hrs / Week)	16(0-16)
SEMESTER 8		
Course Co de	Course Title	Credit Hour
CT-4216	16 Weeks Supervised Industrial / Field Training (8x5=40 Hrs / Week)	16(0-16)



## FACULTY OF PHARMACY

### Message From The Dean

It is a matter of great pleasure and privilege for me to welcome you in Faculty of Pharmacy Grand Asian University Sialkot, a beacon of academic excellence and innovation in Sialkot, we are committed and passionate in preparing pharmacists and pharmaceutical scientists for a career where they will make a difference across the spectrum of healthcare focused on medications.

Our institution has long stood as a leader in research, education and community engagement. We are dedicated to provide students with transformative learning experience that prepare them to tackle the complex challenge of the 21<sup>st</sup> century. Through state-of-the-art facilities, cutting edge research and faculty we aim to equip our students with the knowledge, skills and values essential for success in the ever-evolving global landscape.

As you embark on your educational journey with us, we encourage you to challenge our self, explore new frontiers of knowledge and contribute to the greater good. Our programs are designed to be rigorous, yet supportive, ensuring that each of you is empowered to achieve your highest potential, Not only in scientific expertise but also the clinical skills and integrity necessary to provide exceptional patient care. We also prepare pharmaceutical scientists who are at the fore front of discovering new drugs, improving drug delivery methods and analyzing the effectiveness and accessibility of drug therapies.

I invited you to explore all that Grand Asian University has to offer and to become an integral part of our shared mission to create a better sustainable health activist for the world.

Welcome to Grand Asian University, where your future begins.



**Prof. Dr. Sherjeel Adnan**  
Dean Faculty of Pharmacy



## FACULTY OF PHARMACY

### Mission

The Doctor of Pharmacy program is dedicated to create a pharmaceutical educational and research environment that emphasizes cutting-edge knowledge and innovation. We are committed to nurturing integrity in our students through the use of specialized resources, ensuring that our initiatives align with the Sustainable Development Goals (SDG) to enhance health and well-being of communities.

### Objectives

The Faculty of Pharmacy at Grand Asian University, Sialkot, is dedicated to advancing pharmaceutical education, research, and healthcare practices in line with global standards. Our primary objectives are to

- deliver Comprehensive Pharmaceutical Education
- promote Excellence in Research and Innovation
- develop Competent Healthcare Professionals
- uphold Ethical and Professional Standards
- contribute to Healthcare Policy and Practice

## Programs Being Offered

- Doctor of Pharmacy (Pharm-D)
- M.Phil. Pharmacy (Pharmaceutics)
- M.Phil. Pharmacy (Pharmaceutical Chemistry)





# Doctor of Pharmacy (Pharm-D)

## Program Summary

Admission: Fall  
Program Duration: 5 years  
Total Semesters: 10  
Total Credit Hours: 198

## Career Prospects

- \* Pharmaceutical Industry
- \* Regulatory Affairs
- \* Forensic pharmacist
- \* DRAP
- \* Drug Inspectors
- \* Academia and Research and Development organizations
- \* Hospital and Clinical Pharmacy
- \* Pharmaceutical Sales and Marketing
- \* Entrepreneurship and Public Health
- \* Biotechnology Firms
- \* Contract Research Organizations (CROS)

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
PHRM – 601	Pharmaceutics – IA (Physical Pharmacy)	3(3-0)
PHRM – 601-P	Pharmaceutics – IA (Physical Pharmacy) (Practical)	1(0-1)
PHRM – 602	Pharmaceutical Chemistry-IA (Organic Chemistry)	3(3-0)
PHRM – 602-P	Pharmaceutical Chemistry-IA (Organic Chemistry) (Practical)	1(0-1)
PHRM – 603	Pharmaceutical Chemistry – IIA (Biochemistry)	3(3-0)
PHRM – 603-P	Pharmaceutical Chemistry – IIA (Biochemistry) (Practical)	1(0-1)
PHRM- 604	Physiology - A	3(3-0)
PHRM- 604-P	Physiology - A (Practical)	1(0-1)
PHRM – 605	Anatomy & Histology	3(3-0)
PHRM – 605-P	Anatomy & Histology (practical)	1(0-1)
PHRM – 610	English – A (Functional English)	2(2-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
PHRM – 606	Pharmaceutics – IB (Physical Pharmacy)	3(3-0)
PHRM – 606-P	Pharmaceutics – IB (Physical Pharmacy) (Practical)	1(0-1)
PHRM – 607	Pharmaceutical Chemistry-IB (Organic Chemistry)	3(3-0)
PHRM – 607-P	Pharmaceutical Chemistry-IB (Organic Chemistry) (Practical)	1(0-1)
PHRM – 608	Pharmaceutical Chemistry – IIB (Biochemistry)	3(3-0)
PHRM – 608-P	Pharmaceutical Chemistry – IIB (Biochemistry) (Practical)	1(0-1)
PHRM – 609	Physiology - B	3(3-0)
PHRM – 609-P	Physiology – B (Practical)	1(0-1)
PHRM- 611	English – B (Communication & Writing Skills)	4(4-0)
SEMESTER 3		
Course Code	Course Title	Credit Hour
PHRM – 617	Pharmaceutics – IIA (Dosage Form Science)	3(3-0)
PHRM – 617-P	Pharmaceutics – IIA (Dosage Form Science) (Practical)	1(0-1)
PHRM – 618	Pharmaceutics – IIIA (Pharmaceutical Microbiology & Immunology)	3(3-0)
PHRM – 618-P	Pharmaceutics – IIIA (Pharmaceutical Microbiology & Immunology) (Practical)	1(0-1)
PHRM– 619	Pharmacology & Therapeutics- IA	3(3-0)
PHRM – 619-P	Pharmacology & Therapeutics- IA (Practical)	1(0-1)
PHRM- 620	Pharmacognosy – IA (Basic)	3(3-0)
PHRM- 620-P	Pharmacognosy – IA (Basic) (Practical)	1(0-1)
PHRM – 612	Pharmacy Practice – IA (Pharmaceutical Mathematics)	3(3-0)
PHRM – 613	Islamic Studies	3(3-0)



SEMESTER 4		
Course Code	Course Title	Credit Hour
PHRM – 621	Pharmaceutics– IIB (Dosage form Science)	3(3-0)
PHRM – 621-P	Pharmaceutics– IIB (Dosage form Science)(Practical)	1(0-1)
PHRM – 622	Pharmaceutics– IIIB (Pharmaceutical Microbiology & Immunology)	3(3-0)
PHRM – 622-P	Pharmaceutics– IIIB (Pharmaceutical Microbiology & Immunology) (Practical)	1(0-1)
PHRM – 623	Pharmacology & Therapeutics- IB	3(3-0)
PHRM – 623-P	Pharmacology & Therapeutics- IB (Practical)	1(0-1)
PHRM – 624	Pharmacognosy– IB (Basic)	3(3-0)
PHRM – 624-P	Pharmacognosy– IB (Basic)(Practical)	1(0-1)
PHRM – 614	Pharmacy Practice– IB (Bio-statistics)	3(3-0)
PHRM – 615	Pakistan Studies	2(2-0)
SEMESTER 5		
Course Code	Course Title	Credit Hour
PHRM – 625	Pharmacy Practice– IIA (Dispensing Pharmacy)	3(3-0)
PHRM – 625-P	Pharmacy Practice– IIA (Dispensing Pharmacy) (Practical)	1(0-1)
PHRM – 626	Pharmaceutical Chemistry– IIIA (Pharmaceutical Analysis)	3(3-0)
PHRM – 626-P	Pharmaceutical Chemistry– III (Pharmaceutical Analysis)(Practical)	1(0-1)
PHRM – 627	Pharmacology & Therapeutics– IIA	3(3-0)
PHRM – 627-P	Pharmacology & Therapeutics– IIA (Practical)	1(0-1)
PHRM – 628	Pharmacognosy– IIA (Advanced)	3(3-0)
PHRM – 628-P	Pharmacognosy– IIA (Advanced)(Practical)	1(0-1)
PHRM – 629	Pathology	3(3-0)
PHRM – 629-P	Pathology (Practical)	1(0-1)
SEMESTER 6		
Course Code	Course Title	Credit Hour
PHRM – 630	Pharmacy Practice– IIB Community, Social & Administrative Pharmacy)	3(3-0)
PHRM – 631	Pharmaceutical Chemistry– IIIB (Pharmaceutical Analysis)	3(3-0)
PHRM – 631-P	Pharmaceutical Chemistry– IIIB (Pharmaceutical Analysis)(Practical)	1(0-1)
PHRM – 632	Pharmacology & Therapeutics– IIB	3(3-0)
PHRM – 632-P	Pharmacology & Therapeutics– IIB (Practical)	1(0-1)
PHRM – 633	Pharmacognosy– IIB (Advanced)	3(3-0)
PHRM – 633-P	Pharmacognosy– IIB (Advanced)(Practical)	1(0-1)
PHRM – 616	Pharmacy Practice– III (Computer & its Applications in Pharmacy)	3(3-0)
PHRM – 616-P	Pharmacy Practice– III (Computer & its Applications in Pharmacy) (Practical)	1(0-1)
SEMESTER 7		
Course Code	Course Title	Credit Hour
PHRM – 634	Pharmacy Practice– IVA (Hospital Pharmacy– I)	3(3-0)
PHRM – 635	Pharmacy Practice– VA (Clinical Pharmacy– I)	3(3-0)
PHRM – 635-P	Pharmacy Practice– VA (Clinical Pharmacy– I) (Practical)	1(0-1)
PHRM – 636	Pharmaceutics– IVA (Industrial Pharmacy– I)	3(3-0)
PHRM – 636-P	Pharmaceutics– IVA (Industrial Pharmacy– I) (Practical)	1(0-1)
PHRM – 637	Pharmaceutics– VA (Bio-Pharmaceutics– I)	3(3-0)
PHRM – 637-P	Pharmaceutics– VA (Bio-Pharmaceutics– I) (Practical)	1(0-1)
PHRM – 638	Pharmaceutics– VIA (Pharmaceutical Quality Management– I)	3(3-0)
PHRM – 638-P	Pharmaceutics– VIA (Pharmaceutical Quality Management– I) (Practical)	1(0-1)
SEMESTER 8		
Course Code	Course Title	Credit Hour
PHRM – 639	Pharmacy Practice– IVB (Hospital Pharmacy– II)	3(3-0)
PHRM – 640	Pharmacy Practice– VB (Clinical Pharmacy– I)	3(3-0)
PHRM – 640-P	Pharmacy Practice– VB (Clinical Pharmacy– I) (Practical)	1(0-1)
PHRM – 641	Pharmaceutics– IVB (Industrial Pharmacy– II)	3(3-0)
PHRM – 641-P	Pharmaceutics– IVB (Industrial Pharmacy– II) (Practical)	1(0-1)
PHRM – 642	Pharmaceutics– VB (Bio-Pharmaceutics– II)	3(3-0)
PHRM – 642-P	Pharmaceutics– VB (Bio-Pharmaceutics– II) (Practical)	1(0-1)
PHRM – 643	Pharmaceutics– VIB (Pharmaceutical Quality Management– II)	3(3-0)
PHRM – 643-P	Pharmaceutics– VIB (Pharmaceutical Quality Management– II) (Practical)	1(0-1)



SEMESTER 9		
Course Co de	Course Title	Credit Hour
PHRM – 644	Pharmaceutics -VIIA (Pharmaceutical Technology)	3(3-0)
PHRM – 644P	Pharmaceutics -VIIA (Pharmaceutical Technology) Practical	1(0-1)
PHRM – 645	Pharmacy Practice -VIA (Advanced Clinical Pharmacy -II)	3(3-0)
PHRM – 645-P	Pharmacy Practice -VIA (Advanced Clinical Pharmacy -II) Practical	1(0-1)
PHRM – 646	Pharmacy Practice -VIIA (Forensic Pharmacy)	3(3-0)
PHRM- 647	Pharmacy Practice -VIIIA (Pharmaceutical Management & Marketing)	3(3-0)
PHRM – 648	Pharmaceutical Chemistry -IVA (Medicinal Chemistry)	3(3-0)
PHRM – 648-P	Pharmaceutical Chemistry -IVA (Medicinal Chemistry) Practical	1(0-1)
SEMESTER 10		
Course Co de	Course Title	Credit Hour
PHRM – 649	Pharmaceutics -VIIB (Pharmaceutical Technology)	3(3-0)
PHRM – 649-P	Pharmaceutics -VIIB (Pharmaceutical Technology) Practical	1(0-1)
PHRM – 650	Pharmacy Practice -VIB (Advanced Clinical Pharmacy -II)	3(3-0)
PHRM – 650-P	Pharmacy Practice -VIB (Advanced Clinical Pharmacy -II) Practical	1(0-1)
PHRM – 651	Pharmacy Practice -VIIB (Forensic Pharmacy)	3(3-0)
PHRM- 652	Pharmacy Practice -VIIIB (Pharmaceutical Management & Marketing)	3(3-0)
PHRM – 653	Pharmaceutical Chemistry -IVB (Medicinal Chemistry)	3(3-0)
PHRM – 653-P	Pharmaceutical Chemistry -IVB (Medicinal Chemistry) Practical	1(0-1)

## M.PHIL. Pharmacy (Pharmaceutics)

### Program Summary

Admission: Fall  
Program Duration: 10 years  
Total Semesters: 10  
Total Credit Hours: 30

### Career Prospects

- \* Pharmaceutical Industry
- \* Regulatory Affairs
- \* Forensic pharmacist
- \* DRAP
- \* Drug Inspectors
- \* Academia and Research and
- \* Development organizations
- \* Hospital and Clinical Pharmacy
- \* Pharmaceutical Sales and Marketing
- \* Entrepreneurship and Public Health
- \* Biotechnology Firms
- \* Contract Research Organizations (CROs)

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MPCU-701	Advanced Pharmaceutics	3(3-0)
MPCU-702	Pharmaceutical Biotechnology and Microbiology	3(3-0)
MPCU-703	Nutraceuticals and Cosmetology	3(3-0)
MPCU-704	Pharmaceutical Biostatistics	3(3-0)



SEMESTER 2		
Course Code	Course Title	Credit Hour
MPCU-705	Formulation Design and Product Development	3(3-0)
MPCU-706	Applied Biopharmaceutics and Pharmacokinetics	3(3-0)
MPCU-707	Pharmaceutical Quality Assurance and Instrumentation	3(3-0)
MPCU-708	Research Methodology and Scientific Writing	3(3-0)
SEMESTERS 3&4		
Course Code	Course Title	Credit Hour
MPCU-709	Research and Thesis	6(6-0)

## M.PHIL. Pharmacy (Pharmaceutical Chemistry)

**Program Summary**  
 Admission: Fall  
 Program Duration: 10 years  
 Total Semesters: 10  
 Total Credit Hours: 30

### Career Prospects

- \* Pharmaceutical Industry
- \* Regulatory Affairs
- \* Forensic pharmacist
- \* DRAP
- \* Drug Inspectors
- \* Academia and Research and
- \* Development organizations
- \* Hospital and Clinical Pharmacy
- \* Pharmaceutical Sales and Marketing
- \* Entrepreneurship and Public Health
- \* Biotechnology Firms
- \* Contract Research Organizations (CROs)

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MPCH-701	Analytical Chemistry	3(3-0)
MPCH-702	Drug Discovery and Design	3(3-0)
MPCH-703	Chemistry of Natural Product and Phytochemistry	3(3-0)
MPCH-704	Pharmaceutical Biostatistics	3(3-0)
SEMESTER 2		
Course Code	Course Title	Credit Hour
MPCH-705	Drug Stability and Chemical Kinetics	3(3-0)
MPCH-706	Isolation and Characterization of Drugs	3(3-0)
MPCH-707	Bioinformatics and Combinatorial Chemistry	3(3-0)
MPCH-708	Research Methodology and Scientific Writing	3(3-0)
SEMESTERS 3&4		
Course Code	Course Title	Credit Hour
MPCH-709	Research and Thesis	6(6-0)



## FACULTY OF LAW

### Mission

Department of Law is dedicated to provide contemporary legal education to make young generation proficient legal professionals and skillful personnel for the community. We as a community are committed to place great value on Knowledge, Excellence and Honor and transform the law students into the impeccable professional acumen.

### Objectives

The objectives of this faculty are

- to produce legal experts and professionals who will be able to succeed in their careers.
- to provide students a wide range of opportunities to gain Law expertise in conjunction with academic excellence, collaborative research, leadership and strategic planning.

## Programs Being Offered

- Bachelor of Laws (LLB)
- Master of Laws (LLM)





## Message From HOD



The Department of Law welcomes the new students at Grand Asian University, Sialkot. This department is dedicated to nurturing a new generation of legal professionals equipped to meet the challenges of a rapidly evolving world. Our innovative teaching methods, combined with hands-on experiences, ensure that students not only gain a deep understanding of legal principles but also develop the skills necessary to apply this knowledge effectively in real-world scenarios.

Our distinguished faculty, composed of seasoned legal practitioners and scholars, fosters a dynamic and collaborative learning environment. They bring their expertise and insights to the classroom, inspiring students to think critically, engage in rigorous debates and approach legal challenges creatively. At the heart of our mission is the belief that legal education must transcend theoretical learning, equipping students with the tools to excel in

practice and positively impact society.

Our curriculum is meticulously designed to align with the needs of the legal profession, ensuring that graduates are well-prepared to excel as competent practitioners, ethical leaders and advocates for justice.

We invite you to embark on this transformative journey of intellectual discovery, practical education, and a shared commitment to shaping the future of law. As you become a part of our vibrant community, we encourage you to embrace challenges, seize opportunities and contribute to the noble cause of justice with dedication and integrity.

Thank you for choosing the Law Department at Grand Asian University, Sialkot. Together, let us pave the way for a brighter and more equitable future.

**Dr. Mian Muhammad Sheraz**  
PhD Law





## Bachelor of Laws (LLB)

Admissions: Fall  
Program Duration: 5 years  
Total Semesters: 10  
Total Credit Hours: 166

### Career Prospects

- \* Advocate
- \* Attorney
- \* Corporate lawyer
- \* Mediation
- \* Civil Judge
- \* Immigration lawyer
- \* Prosecutor
- \* Legal consultant
- \* Paralegal

## SCHEME OF STUDIES

SEMESTER 1		
Course code	Course Title	Credit Hour
BC-111	English-I	3(3-0)
BC-112	Pakistan Studies	2(2-0)
BC-113	Introduction to Sociology	3(3-0)
BC-114	Introduction to Economics	3(3-0)
LC-115	Introduction to Law	3(3-0)
BC-116	Computer Skills Development	3(3-0)
SEMESTER 2		
Course code	Course Title	Credit Hour
BC-121	English-II	3(3-0)
BC-122	Islamic Studies	2(2-0)
BC-123	Introduction to political science	3(3-0)
LC-124	Introduction to Legal System of Pakistan	3(3-0)
BC-125	History of South Asia	3(3-0)
LC-126	Law of Torts-I	3(3-0)
SEMESTER 3		
Course code	Course Title	Credit Hour
BC-211	English-III	3(3-0)
BC-212	Introduction to logic and reasoning	3(3-0)
LC-213	Islamic Jurisprudence-I	3(3-0)
LC-214	Law of Torts-II	3(3-0)
LC-215	Law of Contract-I	3(3-0)
LC-216	Constitutional Law-I (UK)	3(3-0)
SEMESTER 4		
Course code	Course Title	Credit Hour
LC-221	Human Rights Law	3(3-0)
LC-222	Constitutional Law-II (US)	3(3-0)
LC-223	Law of Contract-II	3(3-0)
LC-224	Islamic Jurisprudence-II	3(3-0)
BC-225	Introduction to Psychology	3(3-0)
SEMESTER 5		
Course code	Course Title	Credit Hour
LC-311	English Jurisprudence-I	3(3-0)
LC-312	Constitutional Developments in Pakistan	3(3-0)
LC-313	Islamic Personal Law-I	3(3-0)
LC-314	Criminal Law-I	3(3-0)
LC-315	Law of Property	3(3-0)



SEMESTER 6		
Course code	Course Title	Credit Hour
LC-321	English Jurisprudence-II	3(3-0)
LC-322	Law of Business Organizations	3(3-0)
LC-323	Islamic Personal Law-II	3(3-0)
LC-324	Criminal Law-II	3(3-0)
LC-325	Land Laws	3(3-0)
SEMESTER 7		
Course code	Course Title	Credit Hour
LC-411	Public International law-I	3(3-0)
LC-412	Constitutional Law-III (Pakistan)	3(3-0)
LC-413	Civil Procedure Code-I	3(3-0)
LC-414	Criminal Procedure Code-I	3(3-0)
LC-415	Law of Evidence-I	3(3-0)
LC-416	Legal Drafting-I	3(3-0)
SEMESTER 8		
Course code	Course Title	Credit Hour
LC-421	Public International law-II	3(3-0)
LC-422	Equity and Specific Relief	3(3-0)
LC-423	Civil Procedure Code-II	3(3-0)
LC-424	Criminal Procedure Code-II	3(3-0)
LC-425	Law of Evidence-II	3(3-0)
LC-426	Legal Drafting-II	3(3-0)
INTERNSHIP	After completion of 8 <sup>th</sup> semester and before 10 semesters (during summer vacations)	3(3-0)
SEMESTER 9		
Course code	Course Title	Credit Hour
BC-511	Research Methods	3(3-0)
BC-512	Moot cases and Professional Ethics	3(3-0)
LC-513	Minor Acts	3(3-0)
Group of ELECTIVE-I Courses		
LE-514	Alternate Dispute Resolution (ADR)	3(3-0)
LE-515	Consumer Protection Laws	3(3-0)
LE-516	Intellectual Property Laws	3(3-0)
Group of ELECTIVE-II courses		
LE-517	International Humanitarian Laws	3(3-0)
LE-518	Islamic Commercial Laws	3(3-0)
LE-519	Labour Laws	3(3-0)
SEMESTER 10		
Course code	Course Title	Credit Hour
LC-521	Administrative Law	3(3-0)
LC-522	Interpretation of Statutes and Legislative Writing	3(3-0)
LC-523	Final Research Assignment	3(3-0)
Group of ELECTIVE-III Courses		
LE-524	Islamic Legal Maxims	3(3-0)
LE-525	Public Interest Laws	3(3-0)
LE-526	Media laws	3(3-0)
Group of ELECTIVE-IV courses		
LE-527	Cyber laws	3(3-0)
LE-528	Environmental Laws	3(3-0)
LE-529	Clinical Legal Education	3(3-0)

Note: in the last two semesters(9<sup>th</sup> and 10<sup>th</sup>) students can opt four (4) courses (two-2 courses in each semester) of their choice from the list of elective courses (group given in the scheme of study I-IV) offered by the department of law, faculty of law, GAUS, such shall subject to the approval of HOD-Law. (See, note 1 & 2 in the framework of elective courses).



## Master of Laws (LLM)

Admissions: Fall  
Program Duration: 2 Years  
Total Semester: 4  
Total Credit Hours: 30

### Career Prospects

\* Advocate                      \* Prosecutor  
\* Attorney                      \* Judicial Officer  
\* Corporate lawyer  
\* Immigration Lawyer  
\* Legal Consultant

## SCHEME OF STUDIES

SEMESTER 1		
Course Code	Course Title	Credit Hour
MCC-611	Research Methodology	3(3-0)
XXX-XXX	Elective -1	3(3-0)
XXX-XXX	Elective -2	3(3-0)
XXX-XXX	Elective -3	3(3-0)
SEMESTER 2		
XXX-XXX	Elective -4	3(3-0)
XXX-XXX	Elective -5	3(3-0)
XXX-XXX	Elective -6	3(3-0)
XXX-XXX	Elective -7	3(3-0)
SEMESTERS 3 and 4		
MLR-711	Research and Thesis	6(0-6)

Note: The detailed scheme of study of LLM program(s), dully approved by BOS, BOF, AC and BOG, GAUS are available at the department concerned.

Note: Elective Courses will be offered according to the availability of resources.

## Elective Courses

Course code	Course Title	Credit Hour
MLG-611	Comparative Constitutional Law	3(3-0)
MLG-612	Legal history of Pakistan and India	3(3-0)
MLO-610	Islamic Laws	3(3-0)
MLO-611	Criminology	3(3-0)
MLG-621	Administrative Law	3(3-0)
MLG-622	Human Rights and Humanitarian Law	3(3-0)
MLO-621	Comparative study of Islamic and Western Jurisprudence	3(3-0)
MLO-622	Environmental Law	3(3-0)
MLO-623	Intellectual Property Law	3(3-0)
MLO-624	Western Jurisprudence and Legal Theory	3(3-0)



# UNIVERSITY ADMINISTRATION





## REGISTRAR OFFICE

The Registrar's Office is a vital department in a university which serves as the central hub for academic records, registration, and student information.

The Registrar's Office is responsible for maintaining the coherence among all the departments of the University and integrity of academic records, ensuring compliance with academic policies, and providing exceptional service to students, faculty and staff. Being the custodian of the common seal and academic records of the University, this office is responsible for the safe custody of University Ordinance, Statutes and academic rules/regulations and ensuring their strict implementation. As an Administrative Head of the Secretariat of the University, this office is responsible for the provision of secretarial support to the Board and Vice Chancellor and act as Secretary Board of Governors, Executive Committee, Deans Committee, Academic Council, Board of Advanced Studies and Research, Selection Board Committee of the University. On behalf of the university, this office carries out the liaison and coordination with HEC and accreditation councils on requirement basis.



**Dr. Saqib Anwar Siddiqui**  
Registrar, GAUS



## CONTROLLER OF EXAMINATIONS

The Examination Branch is a vital part of the university and is associated with the different activities that range from secrecy, conduct, evaluation, compilation, normalization and announcement of results to the issuance of certificates and degrees and the verification of credentials. The entire work of the Examinations Branch is conducted as per the Act, Statutes, Rules and Regulations made therein by the authorities of the university. The Controller of Examinations is the custodian of the examination records of the students and provides creditable support to the faculty and students in line with best practices countrywide.

The Examinations Branch office, being responsible for maintaining the examination records, takes on the responsibility of providing quality service to the students and faculty in all spheres of examination matters. Along with the other essential functions, it assumes transparency, integrity, secrecy, and quality service as its core values. The main functions include the preparation of date sheets, conducting the examinations, compilation and declaration of results, preparation of transcripts and degrees, as well as arranging the convocations. In order to promptly extend overwhelming services, the Examinations Branch has a vibrant team who are dedicated professionals augmented with the best service skills.



**Mr Mehmood Akhter**  
Controller Examination, GAUS



## TREASURER OFFICE

The Treasurer's Office at Grand Asian University plays a critical role in managing the financial health and resources of the institution. As a key administrative department, it ensures that the university's finances are efficiently managed, transparent, and aligned with the university's strategic goals. The office oversees a wide range of financial services, including tuition payment processing, budget management, payroll, and financial planning. It serves students, staff, faculty, and external stakeholders by handling all matters related to university finances.

The Treasurer's Office of Grand Asian University plays a crucial role in supporting the institution's academic mission by ensuring that all the financial resources are managed responsibly and aligned with the university's goals. Whether assisting students with tuition payments or guiding departments in financial planning, the office is committed to providing exceptional service and maintaining the university's financial stability.



**Mr Muhammad Hayat Khan**  
Treasurer, GAUS



## OFFICE OF RESEARCH, INNOVATION AND COMMERCIALIZATION (ORIC)

The purpose of ORIC is to serve and display as a fundamental platform to cover all the research activities, develop, expand, enhance and manage the university's research programs and link research activities directly to the educational, social and economic priorities of the university and its broader community. The ORIC is also responsible for assuring that the quality of research reflects the highest international standards and competitiveness.

GAUS established the Office of Research, Innovation, and Commercialization (ORIC) under the patronage of the Higher Education Commission (HEC). The objective of the establishment (ORIC) is allied with HEC to develop, improve and manage the University's research programs and to link research activities directly to the educational, social and economic priorities through contributing in knowledge economy of the University and the broader community. The ORIC is also responsible for ensuring that the quality of research reflecting the highest international standards and advances the reputation of the university among the top research institutions in the world and revealing the principal values of academic freedom, professional integrity, and ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

Along with other prime research activities, ORIC in GAUS also acknowledges its responsibilities to establish pathways between academia and industries. In this industrial hub and a Golden Triangle area, this directorate is playing all out efforts to nurture the industrial linkages and to contribute in developing the research based working patterns and knowledge economy in this area. Although we already have collaborative research works with different universities in Germany, Denmark, Turkey, UK, and China. However, we are looking forward to establishing more scientific ties with a number of universities abroad as well as national level.



**Dr. Shehbaz Ali**  
Director ORIC, GAUS



## DIRECTORATE OF ACADEMICS

The Office of the Directorate of Academics has been established to facilitate and render services to our students who are the future leaders. This office is responsible to develop and maintain academic policies, processes and procedures to ensure that all the educational programs in GAUS could deliver and match with the implied needs of all stakeholders especially the students.

This office also involves in developing and maintaining a suite of academic products that are competitive in the market to ensure appropriate outcomes for students, including the use of digital tools for both delivery and support. It also oversees all aspects of academic reporting including performance of students studying at GAUS, the outcomes and other student related activities including migration issues, ensuring that HEC rules, regulations and key performance indicators are met.

Being the Director of Academics, I very warmly welcome my all the new students and feel very pleasure to render the services of Directorate of Academics to solve any issue of our students.



**Prof. Dr. Iqbal Butt**  
Director Academics, GAUS



## QUALITY ENHANCEMENT CELL (QEC)

Quality Enhancement Cell at Grand Asian University Sialkot, strives to create a culture of quality and accountability, ensuring that the university's graduates are equipped with the knowledge and skills to succeed in a rapidly changing world. We are dedicated to foster a culture of excellence in every aspect of our academic and administrative operations. The QEC plays a pivotal role in this mission by continuously enhancing the quality of our educational offerings and support services. The ultimate goal of QEC is to strive hard to knit the vibrant culture of education excellence through developing and displaying the excellence in curriculums, faculty development to furnish with advanced educational tools, student-centered feedback, attaining the accreditation and standards, research and innovation and to match with the implied needs of industries.

QEC upholds the highest standards of quality through rigorous self-assessment and compliance with national and international accreditation requirements. This department with collaborative efforts, encourage students, faculty and staff to engage with our quality assurance processes. As we strive towards our goal of becoming a leading institution renowned for academic excellence, QEC will continue to implement best practices and innovative strategies. Together, we can create an enriching and dynamic educational environment in our university.



**Mr Hamza Jan**  
Deputy Director QEC



## DIRECTORATE OF STUDENT AFFAIRS

The Directorate of Student Affairs provide actively to coordinate the various aspects of student life and development by generating a liaison between students, faculty and university administration. The primary function of Student Affairs Office is to assistance to students in any way possible. It leads, directs, and administers overall functions of Student Service Center, Alumni Relationship, Student Counseling, Job Placement, Student Societies, Clubs, Events and overall discipline.

In University the important function of Student Affairs Office is to enhance the quality of student life both in and outside of the classroom. The Directorate of Student Affairs is a central place for students where they can express and get help about any problem they encounter on campus whether it is academic, personal or emotional. Efforts are made to ensure a student life, free from worries and distractions, to help them learn to manage their affairs on their own and to cope with strains and stresses which are part of the growth processes.

The student Affairs Office provides proactive support and capacity building services to promote co-curricular activities in the University which could enrich our graduates at every stage of their life as well as they could build strong relationships with their peers, faculty, administration and other stakeholders. The knowledgeable friendly student intern staff is cross-trained in all areas to provide student services and get you on your way. The main function of the SSC is to provide student centered customer friendly services as orientation of new students, students enrollment and registration, issuance of student ID cards and New Email Ids, intimation of course registration, timetable and exam dates, handling queries and helping students in their academic problems, career Counseling, Internships and Job Placements and Scholarships/fee concession and registration of students for Co-curricular activities.



**Dr. Ayaz Qaiser**  
Director Student Affairs, GAUS



## DIRECTORATE OF HUMAN RESOURCE

The Directorate of Human Resource at Grand Asian University, Sialkot. As a team is committed to foster a supportive and inclusive environment for our employees. As a Human Resource Department we have created a positive diversified cultural environment where values are obliged. The diversified culture also raises more positive voices which build our workforce structure stronger and deeper in terms of learning and gaining knowledge. We practice equal employment opportunities for the all qualified individuals, regardless of race, gender, ethnicity, age, disability and cultural differences. Our recruitment process is based on equal opportunity parameters which attracts people from diverse culture. The merit is one of our core values and we welcome people who bring best to the mutual growth of the team and also offer benefits to those who are working with us.

Our mission is to develop and retain the talented and diverse workforce which contributes to the academic and institutional excellence of the university. At Grand Asian University Sialkot, we believe that our people are our main asset, and this department is dedicated to create such a working environment which promotes innovation, teamwork, collaboration and strong sense of learning. This Department is overseeing the recruitment process, employee's relations, employee compensation & benefits, payroll management, employee training and workshops and employees development programs.

Our employees have direct access towards the medical facilities where they have quality treatment and medication for themselves and their families. We not only care our employees but also their families because for us their families are also a part of the institution.



**Ms Rabia Bibi**  
**Director HR, GAUS**



## IT SERVICES

The IT Services Department at Grand Asian University plays a pivotal role in supporting the technological needs of students, faculty, and staff. It ensures the smooth functioning of the university's IT infrastructure, providing essential services that enhance academic, administrative and research activities. The department's core responsibility is to deliver reliable, efficient and secure technology solutions across the campus, fostering an environment where technology seamlessly integrates with the university's academic mission.

IT Services manage a wide range of tasks, from maintaining the campus-wide network and providing Wi-Fi access, to overseeing data security, software management and hardware maintenance. The department also ensures the availability of key academic resources such as learning management systems (LMS), cloud storage and online collaboration tools. By maintaining up-to-date and secure systems, IT Services guarantees that students and faculty can access essential academic resources from anywhere, anytime.

IT Services places a high priority on cyber security, protecting sensitive data and ensuring that all systems are secure from potential cyber threats. It continually evaluates and upgrades its security protocols to meet the latest standards.

Through its commitment to excellence, innovation, and service, IT Services ensures that Grand Asian University remains a leader in technology-driven education, supporting both the present needs of the community and the future ambitions of the institution. By keeping the university connected and its systems secure, IT Services is integral to the success of Grand Asian University's mission.



**Mr Abdul Samad Hashmi**  
IT Manager, GAUS



## MEDIA & WEB DEVELOPMENT TEAM

The Media & Web Development Team at GAUS is dedicated to creating and managing the university's digital platforms and media presence, ensuring they are innovative, user-friendly and aligned with the institution's goals for engagement and excellence. This team is responsible for delivering a seamless online and media experience for students, faculty, staff and visitors by developing and maintaining websites, web-based applications, and multimedia communication tools that enhance the university's academic, administrative and outreach functions.

In addition to managing websites, the Media & Web Development Team designs custom websites and digital media solutions to support various academic and administrative needs. These include student portals, faculty dashboards, online enrollment systems and dynamic media content, streamlining processes and enriching the user experience. The team collaborates closely with other departments to identify their digital and media needs and transform them into impactful solutions.

A strong focus on security ensures that all platforms comply with the latest cyber security standards. Regular monitoring, updates and the implementation of cutting-edge security measures safeguard sensitive information and maintain trust.

The Media & Web Development Team is instrumental in shaping the digital and media identity of GAUS. By delivering innovative, secure and reliable solutions, the team empowers the university to thrive in a modern, technology-driven academic landscape, promoting connectivity, creativity and growth in the digital and media spheres.



**Mr Waqar Azeem Khan**  
Web Developer



**Mr Rabi Ul Hasnat Ahmed**  
Chief Designer, GAUS



## DIRECTORATE OF ADMISSIONS

The Directorate of Admission at Grand Asian University serves as the gateway for prospective students looking to join a world-class academic institution committed to excellence in education, research, and innovation. The directorate plays a pivotal role in facilitating the admission process, ensuring that students from diverse backgrounds have the opportunity to become part of a vibrant learning community. The mission of this directorate is to recruit, enroll, and support a diverse and talented student body that will thrive academically and contribute to the university community. With a commitment to inclusivity and access, the department strives to make the admission process smooth and equitable for all applicants.

The key functions comprising of guiding and imparting personalized attention to students, throughout the entire admission process, helping them in the choosing the best program, eligibility criteria, application processing, entrance exams and interviews, course offerings, scholarship opportunities and financial aid, campus tours and open house discussion. Also, this Department helps to maintain a connection with the university's alumni network, providing prospective students with valuable insights into career opportunities and life after graduation. So, cumulatively the admission department in Grand Asian University is dedicated to assisting students in every aspect of their journey to becoming successful members of the university's academic community and thereafter the most functional entities for society.



**Ms Rabia Tahir**  
Deputy Director Admissions, GAUS



# ADMISSION INFORMATION





## ADMISSION POLICY

### 1. CONFIRMATION OF ADMISSION

- Selected candidates are required to confirm their **acceptance of admission** by depositing the **prescribed fee** and submitting complete **set of documents**
- The admission in the University will be **provisional subject** to the verification of the **Certificate/Degrees of the students**
- Submission of **incorrect/ false forged/ fabricated fraudulent document(s) or information is a criminal offence** and in either of such cases, the University reserves the right to **initiate legal proceedings** in addition to **cancellation of admission** from retrospective effect at any stage without any **prior notice**.

### 2. INTER PROGRAM TRANSFER

A student registered in a program after paying dues, may be transferred to another program in the University subject to the condition that she has applied in the program of second choice and falls on merit (if applicable) with the permission of the concerned Dean/HOD and Registrar or nominee within fifteen (15) days of commencement of classes. Afterwards, no permission for inter program transfer will be accepted in any case. In the case of program transfer, the fee of new program will be charged /adjusted accordingly.

### 3. SEMESTER FREEZE

The freezing in first two semesters shall not be allowed. The detailed Regulation for freezing of semester's may be perused in the Rules and Regulations for Examinations

### 4. MIGRATION/TRANSFER OF CREDITS

A. Migration from other Institutions to GAUS:

The Vice Chancellor, on the recommendations of the Head of Department/Dean of Faculty through the Registrar may allow migration/transfer of credits of a regular student earned from HEC recognized Institutions and accredited by the concerned accreditation bodies, to this University, subject to fulfillment of following conditions/submittal of following documents:

- a) The applicant concerned should fulfill minimum entrant criteria of the program of this University. No migration will be allowed in first and final year classes.
- b) The applicant will come in office along with required documents and will complete, and submit application on prescribed form obtained from the Registrar Office providing genuine and plausible reasons for migration through his parent Institution to the Registrar in all respects will be referred to the Head of Department/Dean of Faculty concerned who shall securitize the same and determine (i) whether the applicant fulfills the entrant criteria



## ADMISSION POLICY

(ii) Semester in which he/she will be allowed migration (iii) Deficiency course(s) to be studied by the applicant during his/her stay in this University, if allowed or declare course(s) as exempted, so that his/her studies at parent Institution could be declared at par with the students of this University. Such recommendations shall be submitted by the HOD concerned to the BOF for endorsement and onward consideration of the Registrar.

c) The request of applicant who has been dropped out, rusticated, expelled, or whose entry in the parent Institute was banned for the reasons whatsoever at any time during his/her academic career, SHALL NOT BE CONSIDERED

d) The applicant should therefore, be required to submit a “No Objection Certificate” in this context that:

- He has secured not less than 2.5 GPA or equivalent in the examination based on which migration is being requested.
- He has neither been debarred from taking the University/Institution examinations nor suspended, expelled/rusticated for whatsoever reason, from the university or institution from where he intends to migrate.
- No disciplinary action is pending against him at his parent University/Institution.

e) Admission by migration will not be allowed ordinarily after the expiry of four weeks from the commencement of the semester classes.

f) Migration fee, as prescribed by the University per semester to be studied, will be charged.

g) Credits hours will be transferred on course to course basis ie. A person taking course A at University X is allowed to transfer his/her credits to GAUS provided that course A is equivalent to course taught at the GAUS.

h) Courses with credit hours and course contents equivalent to the degree program at this University, shall be considered for transfer.

i) Exempted courses along with their credit hours shall be depicted on the final/official transcripts but their grades obtained from the parent Institution will not be displayed and will not be considered for CGPA calculation. Such subjects will be marked as “Transferred Credits” (TC)

j) The applicant should have to complete minimum 50% of the courses from the Grand Asian University, Sialkot. No credit hours of a course will be transferred if the grade is 'C' or less for undergraduate and 'B' or less for graduate/postgraduate programs.



## ADMISSION POLICY

### B. Migration from GAUS to other Institutions:

a) A student desiring to leave this University and to join another university or institution shall apply to the Dean of the Faculty concerned on the prescribed form.

b) The student shall be required to clear all the university dues before he applies for migration.

c) In case of a student who has been debarred from taking the University examination or has been expelled or rusticated for whatsoever reason, No Objection Certificate (NOC) shall not be issued so far as the punishment is in force.

d) The Registrar shall issue NOC which shall be valid for 60 days only.

e) A student who has obtained NOC from this University, but has not secured admission in another institution may be re-admitted to the GAUS in the class to which he can be admitted under the regulations provided that:

i. His absence from the current teaching session of that class does not exceed four (4) weeks.

ii. He surrenders the NOC.

Any change/ addition/modification, if made in these regulations will also be applicable.

The Worthy Vice Chancellor has the powers to regret any request for migration after recording proper reason(s) or relax any of the above condition(s) to be determined on case to case basis, if situation warrants.



## ENTRY REQUIREMENTS

### Programs in Biosciences

#### Undergraduate Programs (ADP/BS)

At least 2nd division (50% marks) in FSc Pre-Medical and Pre-Engineering or equivalent (12 years of education) or Equivalent HSSC Certificate from IBBC Islamabad with at least 50% marks.

#### Graduate Programs (MS)

16 years of Education or 4 years of BS in Biochemistry, Microbiology, Biotechnology or Pharmacology for MSc/MS Programs in relevant field with at least 2nd Division with 50% marks in annual system and/or 2.5/4.00 CGPA (semester system) from HEC recognized University.

Qualifying GAUS entry test (securing minimum 50% marks) and interview is mandatory or valid scores (above cumulative 50%) in GAT-GENEAL test conducted by the University authorized/approved testing and evaluation agencies is also acceptable for the admission in MSc/MS programs.

### Programs in Food Nutrition and Agricultural Sciences

#### Undergraduate Programs (ADP/BS)

FSC Pre Medical, Pre-Engineering, DAE Food Science or Equivalent HSSC Certificate from IBBC Islamabad with at least 50% marks.

#### Graduate Programs (MS/PhD)

- Students seeking admission to MS in Human Nutrition & Dietetics must possess minimum CGPA 2.0 out of 4.0 or 50% in annual system in BSc (Hons.) Human Nutrition and Dietetics, BSc (Hons.) Human Nutrition, BS (Hons) Nutrition and Dietetics, BSc (Hons) Food Sciences and Human Nutrition, Doctor of Nutrition and Dietetics, BS/ BSc (Hons) Home Economics (Food and Nutrition) and BSc (Hons.) Nutrition.
- NTS test / GAT-GENERAL/ University Test/ subject test (minimum 60% marks)
- Student seeking admission in PhD Human Nutrition and Dietetics must possess the following entry requirements.
- M.Sc.(Hons.)/M.S. Human Nutrition and Dietetics, M.Sc. (Hons.) Nutrition, M.Sc.(Hons.) Food Science and Nutrition/ M. Phil Food and Nutrition, M.Sc. (Hons.) Home Economics (Food and Nutrition), M.Sc. (Hons.) Food Science and Technology/ Food Technology (18-year education) from any HEC Recognized University with minimum 3:0/ 4:0 CGPA in semester system and/or first division in annual system OR equivalent 18 years of education/ degree in relevant field (Biological and Medical Sciences)
- At least 70 % scores are required in the University entrance test for PhD program



## ENTRY REQUIREMENTS

### Programs in Business Administration and Accounting and Finance

#### **Undergraduate Programs (ADP/BS)**

FSc/ICS/ I.Com/FA or an Equivalent HSSC Certificate from IBBC Islamabad with at least 45%

### Programs in Computer Science and Information Technology

#### **Undergraduate Programs (ADP/BS)**

Minimum 50% marks in Intermediate/12 years schooling/A- Level (HSSC) or Equivalent are required for admission in all BS Computing Programs other than BS Computing Engineering excluding sports and Hafiz-e-Quran marks.

### Programs in Social Sciences

#### **Undergraduate Program (ADP)**

FSc/ICS/ I.Com/FA or Equivalent HSSC Certificate from IBBC Islamabad with at least 33%

### Programs in Pharmacy

#### **Undergraduate Program (Pharm D)**

Minimum 60% marks in FSc /12 years schooling/A- Level (HSSC) or Equivalent

\*An equivalency certificate by IBCC will be required in case of education from some other country or system.

Students who have not studied Mathematics at the intermediate level have to pass deficiency courses of Mathematics (06 credits) in the first two semesters.

#### **Graduate Programs (MS)**

Degree in the relevant subject, earned from a recognized university after 16 years of education with at least 60 % marks or CGPA of at least 2.0 on a scale of 4.0.



## ENTRY REQUIREMENTS

### Programs in Law

#### **Undergraduate Program (LLB)**

At least 2nd Div. (50% marks) in FA/FSc or equivalent (12 years of education) with Law Aptitude Test (LAT), qualified with minimum score of 50% and has maximum of three chances to pass the test.

#### **Graduate Program (LLM)**

Students seeking admission in LLM need to clear LLB with at least 2nd Division or 50% marks in annual system and/or 2.5/4.00 CGPA (semester system) from HEC recognized University.

### Programs in Engineering

#### **Undergraduate Programs (BS)**

An applicant for admission to BS/BSc in mechanical, civil and electrical engineering courses offered by the University must fulfill the following requirements:

- He/she should have obtained at least 60% marks in Intermediate/DAE/B.Sc./B.Tech (Pass) examination excluding sports and Hafiz-e-Quran marks.
- In case of a candidate applying on the basis of B.Sc. degree, he should have also obtained at least 60% marks in Intermediate/ DAE examination.
- He/she should have appeared in the entry test arranged by this University for that particular academic session in which he seeks admission.
- The student should have at least 50% overall adjusted admission marks computed by giving 67% weight to Intermediate/DAE /B.Sc./B.Tech (Pass) examination result and 33% to University Entry.

#### **Graduate Programs (MS)**

- Students seeking admission to MS in M.Sc. Electrical, Mechanical or Civil Engineering earned from a recognized university after 16 years of education and must possess minimum CGPA 2.0 out of 4.0 and 50% in Semester/Annual system in undergrad and registered with PEC.
- NTS test / GAT-GENERAL/ University Test/ subject test (minimum 60% marks)



# CAMPUS FACILITIES





# FREE TRANSPORT

GAUS is the first ever university in the region to provide Free Transportation to all of its students living around upto 100 km distance. This one of the landmark facilities is being provided to the students to make them convenient to reach the university in time and go back home safely. This facility also entails the benefit of saving good amount of money each year, for the students.





## SEMINARS, WORKSHOPS, AND CONFERENCES

GAUS regularly hosts seminars, workshops, and conferences, connecting students with industry leaders, scholars, and professionals. These events foster knowledge-sharing, provide career insights, and expose students to the latest trends in their fields. These activities are essential for skill development and networking opportunities.





## YOUM E TASHAKUR

Grand Asian University organized **يوم تشكر** to honor the valiant soldiers of the Pakistan Army. Major General Imran Khan Baber (GOC 15 Division, Sialkot) graced the occasion, sharing inspiring words that stirred patriotic pride among students and faculty. The event reflected the university's deep respect for the armed forces and its commitment to national unity and resilience.





## EDUCATIONAL AND RECREATIONAL TOURS

The university organizes educational tours to industries, research centers, and cultural landmarks, alongside recreational trips that allow students to explore different regions. These tours broaden students' perspectives, enhance learning experiences, and provide opportunities for relaxation and bonding.



## STUDENT HOSTELS (BOYS AND GIRLS)

GAUS offers secure and comfortable hostel accommodations for both male and female students, with separate facilities for each. The hostels provide a safe and supportive living environment with all essential amenities, ensuring students' well-being and fostering a sense of community.





## ENGINEERING AND SCIENCE LABS

Our state-of-the-art engineering and science labs are fully equipped with cutting-edge technology and tools. These labs provide hands-on experience for students in various disciplines, allowing them to apply theoretical knowledge to real-world scenarios. The labs foster innovation and practical problem-solving, essential for students' academic and professional growth.



## WELL-EQUIPPED COMPUTER LABS

Our advanced computer labs are furnished with the latest hardware and software facilities offering students the necessary resources for research, coding, data analysis, and other academic activities. With high-speed internet and specialized software, the labs support both individual projects and group collaborations, enhancing learning efficiency.





## LIBRARY



**Mr Jamshaid  
Wazeer Zafar**  
Chief Librarian, GAUS

The University Library and Information Resource Center (LIRC) at Grand Asian University, Sialkot, is a modern, air-conditioned facility that plays a pivotal role in supporting the university's academic programs and research endeavors. It offers a comfortable and conducive environment for study and research, with a spacious seating capacity, designed to accommodate a large number of students at any given time. The LIRC boasts one of the most comprehensive collections of books in Pakistan, housing over 33,000 volumes across various disciplines, in addition to subscriptions to a wide range of foreign and local journals, magazines, and online databases. Equipped with advanced technology, the library ensures easy student access, both in-person and remotely through its live online catalog, enabling students to search holdings and access scholarly journals and e-books from anywhere.

The LIRC is committed to knowledge dissemination through conventional and electronic means, aiming to enhance the intellectual capital of both the university and the broader community. Its Off-Campus Library Services (OCLS) cater to the needs of distant learners and e-students with the same dedication as on-campus users. OCLS ensures the delivery of e-resources, including journal articles and e-books via email. The facility is fully air-conditioned, providing a comfortable atmosphere for focused study, and offers ample seating to ensure students have the space they need for individual and group work. With access to the Higher Education Commission (HEC) Digital Library & E-Library Punjab, the LIRC stands as an indispensable resource, supporting research, academic growth, and a student-centered approach to learning, both on and off-campus. This modern, student-friendly facility is integral to the academic experience at Grand Asian University and fosters learning, research, and innovation.







# CAMPUS LIFE

## CAFETERIA AND SECOND CUP CAFE

The campus features a spacious cafeteria offering diverse and healthy food options, providing a relaxing environment for students to unwind. Additionally, Second Cup Café serves premium coffee and snacks, creating a cozy spot for social interactions or study breaks.





## GRAND MOSQUE

A beautiful Grand Mosque is located at the campus, providing students with a peaceful space for prayer and reflection. The mosque accommodates a large congregation, supporting the spiritual needs of the university community and fostering a sense of unity and tranquility.



## STUDENT SOCIETIES

Our vibrant student societies cater to a wide range of interests, from academic pursuits to creative arts and social causes. These societies encourage leadership, teamwork, and personal growth, providing a platform for students to explore their passions and engage in meaningful activities, and build a strong community.





## EVENTS AND EXTRACURRICULAR ACTIVITIES

GAUS offers a wide range of co-curricular activities from sports to cultural events, to enrich student life. These activities promote physical fitness, creativity, and teamwork, helping students in maintaining a balanced lifestyle while fostering social connections and leadership skills.

### Cultural Fusion 2025



### Alumni Reunion





## Sports Gala



## Qawali Night



## Food Exhibition 2024





## Food Fest 2023



## Interactive Session with Dr. Javed Iqbal



## Interactive Session with Mr. Adeel Hashmi





## Interactive Session with Soban Attari



## Interactive Session with Tuaha ibn Jalil



## Dawn Education Expo 2024





## WALKS

### Smog Awareness Walk



### World Diabetes Day (November 14, 2024)





## World Food Safety Day



## Smog Awareness Campaign



## Smog Awareness Projects





# MEMORANDUM OF UNDERSTANDINGS





## FOREIGN UNIVERSITY



# AZERBAIJAN UNIVERSITY



**GRAND ASIAN  
UNIVERSITY, SIALKOT**  
A CHARTERED UNIVERSITY



**AZERBAIJAN  
UNIVERSITY**

## MEMORANDUM OF UNDERSTANDING

**Grand Asian University, Sialkot and Azerbaijan University** has signed **Memorandum of Understanding** for students and faculty exchange, establishment of joint research projects, joint research publications, internships and organizing the conferences, seminars, and symposium of mutual interest to both universities.



## NATIONAL ORGANIZATIONS

### Gujranwala Electric Power Company (GEPCO)



### Federal Board of Revenue (FBR)



### AirSial





## NATIONAL ORGANIZATIONS

### Sialkot Police



### Rangers



### Mentors





# *I am Future*





## CAREER SERVICES

### Internship and Job Placement Office

In line with our commitment to producing industry-ready graduates, Grand Asian University Sialkot has established a dedicated Internship and Job Placement Office. This office serves as a vital link between students and potential employers, facilitating internships, job placements, and career development opportunities. The office works closely with industry partners, including those with whom we have signed MOUs, to ensure that our students gain practical experience and are well-prepared to meet the demands of the job market. Additionally, the office organizes career fairs, employer networking events, and skill development workshops to further enhance student employability.

### Student Counseling and Career Guidance

Understanding the importance of holistic student development, the university has strengthened its Student Counseling and Career Guidance services. These services are designed to support students in navigating their academic journey, overcoming personal challenges, and making informed career choices. Our counseling services offer personalized guidance, while career advisors assist students in identifying their strengths, setting career goals, and developing the skills necessary to achieve them. Workshops, seminars, and one-on-one counseling sessions are regularly conducted to ensure that our students are equipped to succeed both academically and professionally.



# *Empowering* **NEW GENERATIONS** **THROUGH EXCELLENCE**





## STUDENT SUPPORT SERVICES

### Business Incubation Center

The Business Incubation Center is designed to support entrepreneurial initiatives by providing resources, mentorship, and guidance. Students can develop and launch their business ideas with access to industry experts, networking opportunities, and a collaborative environment, encouraging innovation and real-world business solutions.

### Campus Market

The campus market provides convenient access to essential items, snacks, and other goods for students and staff. It offers a variety of products to meet every day needs, ensuring that students have easy access to supplies without needing to leave the campus.

### Medical Services

GAUS is situated adjacent to its own fully equipped hospital, offering comprehensive healthcare services to students and staff. With access to specialized medical professionals, state-of-the-art facilities, and round-the-clock care, students benefit from full medical support during university hours. Regular checkups, emergency services, and advanced treatments are readily available, ensuring that all health needs are promptly addressed within close proximity to the campus.



*I am The Future*

SCIENCES - LAW - PHARMACY - ENGINEERING

**OFFERED PROGRAMS**

**ADP-BS  
MS/MPhil-PhD**







Grand Asian University is committed to Academic Integrity, which involves upholding ethical standards in all aspects of academic work, including learning, teaching and research. It involves acting with the principles of honesty, morality, trust and responsibility and requires for knowledge and its development.

Students of GAUS are expected to conduct themselves in a manner that reflects these values.

Every student shall observe the following Codes of Conduct:

- Respect teaching, non-teaching staff and others in authority.
- Students must display student ID cards within university premises.
- Cleanliness of mind, speech, habits, body and environment.
- Smoking is prohibited within all buildings of the University.
- Displaying/carrying/putting any badge, sticker, handout, poster or placards.
- Staging, inciting or participating in any walk-out or strike, is prohibited.
- Possession of weapons of any kind in all premises of the University.
- Students are not allowed to have physical touch.

Disciplinary action will be taken in case of misconduct.



## Anti-Ragging Policy

Grand Asian University Sialkot is committed to creating a safe, respectful, and inclusive campus environment. Ragging in any form is strictly prohibited and considered a serious offense. This policy outlines the university's stance against ragging, measures for prevention, and actions to be taken in the event of a violation.

### **Prohibited Conduct :**

- Physical abuse, including but not limited to hitting, slapping, or forcibly restraining.
- Verbal or mental abuse, including teasing, mocking, or threats.
- Any activity that disrupts a student's academic or social life.
- Forcing an individual to perform tasks or participate in activities against their will.

### **Disciplinary Actions:**

- Any student or group found guilty of ragging will face disciplinary action, which may include:
- Suspension or expulsion from the university.
- Withdrawal of scholarships or other academic privileges.

### **Reporting Mechanism:**

- Students can report ragging incidents to the Office of Student Affairs.

Grand Asian University is committed to maintaining a zero-tolerance stance on ragging and expects all community members to uphold this policy to create a safe and welcoming campus for all.

## Attendance Policy

No candidate shall be eligible to appear in an end semester examination unless the following conditions are fulfilled:

1. He has been on the rolls of the university during the semester for which the examination is being held.
2. He is not debarred from taking the examination under the university rules and regulations enforced for the time being.
3. He has attended a minimum of 75% of the total number of lectures delivered, the laboratory periods held, design and practical work done in a course during the semester for which the examination is being held. The head of the concerned department may, for valid reasons, condone this deficiency up to 10% after consultation with the course teacher concerned.
4. If a student does not fulfill the condition of attendance, he shall be awarded an 'F' grade in that course, whether theory or lab. He will have to re-register himself for that course in the summer semester if offered or in a regular semester (as an additional course) in which the course is being offered.
5. The course teacher(s)/Lab teacher(s) concerned will maintain the attendance record for their courses. They will display and forward the list of such candidates who do not fulfill the condition of attendance to the Controller of Examinations through the Head of the Department and the Dean of Faculty, immediately after the completion of the teaching session. Such candidates shall not be allowed to appear in the End Semester Examination of that course.
6. At the end of each month, the teacher concerned shall send to Head of the Department a statement giving the total number of lectures delivered or labs conducted by him together with the number of lectures or labs attended by each student.



## Harassment Policy

Grand Asian University (GAUS) is committed to providing a safe, harassment-free environment for all students. This policy aims to protect students from any form of harassment, discrimination, or abuse, ensuring that every individual is treated with dignity and respect.

This policy covers any unwelcome behavior, verbal or physical, that creates a hostile, intimidating, or offensive environment which includes but is not limited to:

- Unwanted sexual advances, requests for sexual favors, or other verbal, non-verbal, or physical conduct of a sexual nature.
- Repeated, unreasonable actions directed toward a student intended to intimidate, degrade, or humiliate.
- Unfair treatment based on race, gender, religion, ethnicity, nationality, disability, or any other personal characteristic.

### Reporting and Response Procedure

- Students may report harassment through the Student Affairs Office.
- Upon receiving a report, GAUS disciplinary committee will conduct an impartial investigation respecting the confidentiality of all involved parties.
- If a violation is confirmed, GAUS may take disciplinary actions, which can include warnings, suspension, or expulsion depending on the severity of the misconduct.

Retaliation against any student who reports harassment in good faith is strictly prohibited. Any acts of retaliation will be treated as a serious violation of university policy.

GAUS will conduct workshops, orientations, and awareness campaigns regularly to educate students about harassment and the importance of creating a respectful campus culture.



# *Jam The Future*







 [www.gaus.edu.pk](http://www.gaus.edu.pk)

 052-3310617-20  +92-347-1651564

 7km-Pasrur Road, Sialkot

     /Grand Asian University Sialkot

Admissions Office

 052-3310617-20 |  +92-347-1651564

Academic Department

 052-3310617-20 Ext:164

Career Services Office

 052-3310617-20 Ext:145



## APPENDICES

**Broad Campus (Aerial View)**





Composed and Developed by  
Prof. Dr. Muhammad Mushtaq Ahmad,  
Department of Food, Nutrition & Agriculture Sciences  
Designed and Formatted by  
Rabi-ul-Hasnat, Chief Designer, GAUS  
Supported by the Team of Prospectus Development Committee,  
Notified Vide Letter No. GAUS / Registrar 1/28 Sialkot, the 23rd September /2024





# GRAND ASIAN UNIVERSITY, SIALKOT

A CHARTERED UNIVERSITY








**FREE TRANSPORT  
FACILITY FOR STUDENTS**

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