

# *Prospectus*



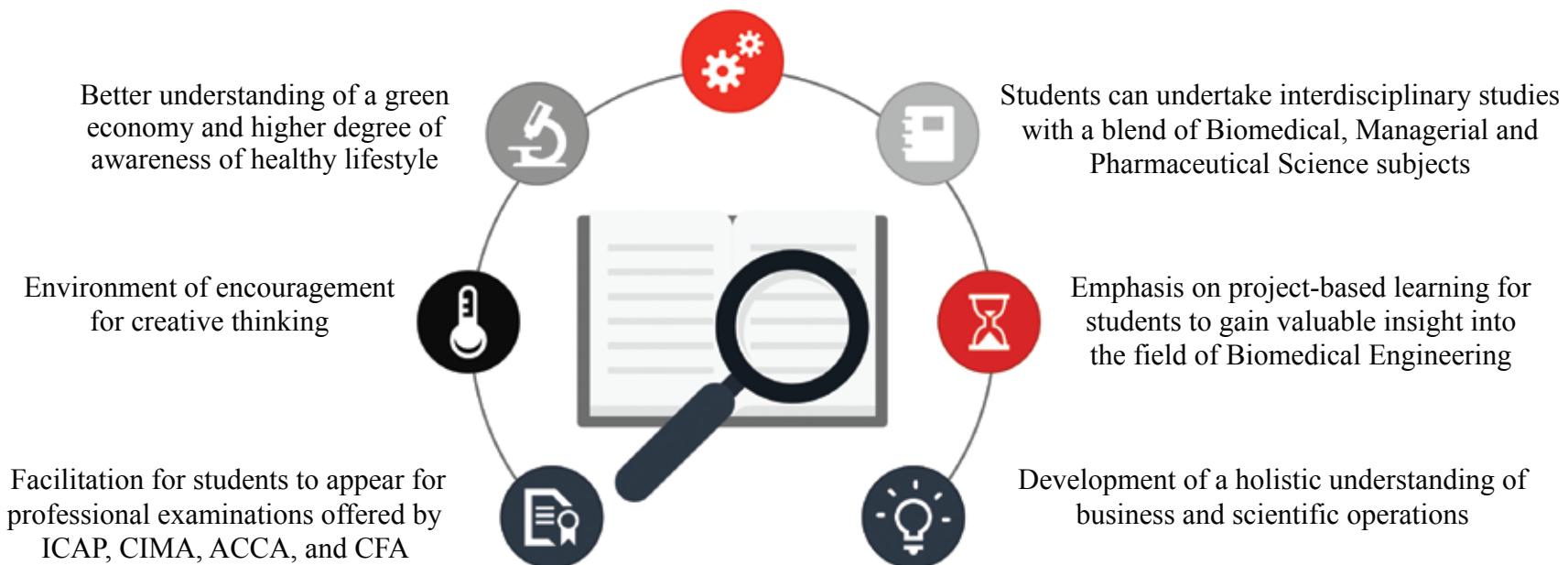
SALIM HABIB UNIVERSITY



**SALIM HABIB UNIVERSITY**

## Competitive Edge of SHU Programs

Promoting career opportunities in diverse fields such as Food Sciences, Hospital, Healthcare and Medical Device industries, Water Industry, Sewerage Disposal and Treatment Plants, Business Management and Financial Analysis through application of studies in Sciences, Pharmacy, Engineering, Information Technology and Management Sciences



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## Message from the Life Chairperson

All the ills of any nation start with lack of education and unfortunately Pakistan is one of them where the literacy rate is lower than 45%. Realizing this weakness of our nation it has been my lifelong passion and desire to do something about it. Therefore I decided that I should put my resources and efforts to contribute towards the development of education in Pakistan. Despite numerous hurdles and loss of precious years, I continued striving to setup the Salim Habib University in Karachi.

It is a proud moment for all of us especially for me that the Salim Habib University Karachi has opened its doors for admission. One thing I repeat that we all have to bear in mind, the lack of education facilities and or its accessibility to some individuals is the primary cause of nation's under development.

*"An illiterate man is like a blind person in a dark room who will never see the light of the day"*

I wish the University lot of success.

**Dr M S Habib**

Life Chairperson



## Message from the Chancellor

Education is the single most important factor in developing the economy of Pakistan. It's the most valuable tool an individual can possess, and holds the key to our country's future. Henceforth, it is my strong belief that if we wish to succeed, we must empower our educational system. While many have spoken around the benefits of education, few have acted upon addressing this change. We believe it is time to address this gap and ensure our youth an opportunity that can embolden their future. Here at Salim Habib University (SHU), we are committed to achieving this goal as we provide a foundation that cultivates passion, intelligence and character with largely one outstanding mission – To Provide Quality Education for our Children.

I welcome all my undergraduate students, and sincerely thank my dedicated faculty at SHU for mentoring our youth. This University was created in the face of many challenges. However, we pushed hard and were persistent in our mission. We have built an institution that is predicated upon values of integrity and transparency. These core values are the basis of every project I have established, and SHU has been built upon these values. It is a product of our sheer persistence against all odds, and it is this spirit of perseverance, loyalty and stick-to-it-ness that we aim to instill in our children as well.

The University is new yet fully equipped to walk you through each program with the goal of finding your unique passion. Additionally, the experience goes beyond books and laboratories as we have built an aesthetically pleasant campus with athletic facilities meeting international standards as we stand with our youth, and remain united to provide a system where they flourish.

Our goal is to empower our education system and also improve the culture of our nation. Here, at SHU, we want our students to be very proud of and confidently exclaim that they belong to a Pakistani Academic Institution. We want our parents, relatives and people abroad to become excited about what SHU stands for. We want local communities to look within our nation first- for education, and not abroad. Today, Karachi hears us but I can assure that one day the world will also hear about the success of our children.

I am proud of what we have accomplished, and look forward to the many unprecedented opportunities SHU has to offer. Our children will become leaders in business and industry. They will serve our nation with optimism and pride. They will make their mark on this world and Salim Habib University will always be there to support, sustain, and encourage those who are determined to learn.

Best of luck and endless success to Salim Habib University,

**Dr Iram Afaq**  
Chancellor



## Message from the Vice Chancellor

Salim Habib University (SHU), since its establishment has shown a commitment to innovation and to serve the needs of the community.

SHU constantly strives to provide high-quality education, equipping students with the acumen to be able to address both national and global challenges. Within a short span of its existence, SHU has shown success in introducing modern curriculum, student engagement, professional training, faculty development, local and international collaborations, progress towards a state-of-the-art campus building, industry partnerships, research endeavors and much more.

The faculty and staff at SHU are dedicated and capable of converting the challenges into opportunities, demonstrating their excellence in teaching, learning and research; and fulfilling the needs of communities.

As a Vice-Chancellor, I have focused my attention to respond to the challenges of ever-changing sector of higher education, identifying our strengths and building a distinctive character and identity.

The Salim Habib University offers work-integrated learning and emphasizes on continued professional development by providing the tools and support necessary to succeed in professional life. These aspects make SHU a challenging, exciting and competitive place to study and work with. If you are committed to the pursuit of excellence, SHU could be the best place to achieve your higher educational goals.

**Prof. Dr. Syed Irfan Hyder**

Vice Chancellor

# The Policy Makers

## The Board of Governors

### **Dr. M S Habib**

Life Chairperson

The Salim Habib Education Foundation & Barrett Hodgson Pakistan (Pvt) Ltd.

### **Dr. Iram Afaq**

Chancellor

Salim Habib University

Chief Executive Officer and Founding Member

The Salim Habib Education Foundation

Chief Executive Officer and Deputy Chairman

Barrett Hodgson Pakistan

### **Prof. Dr. Syed Irfan Hyder**

Vice Chancellor

Salim Habib University

### **Justice Muhammad Karim Khan Agha**

Judge

High Court of Sindh

### **Dr. A Q Mughal (SI)**

A nominee of HEC

### **Mr. Tariq Amin**

Director

The Salim Habib Education Foundation

### **Dr. Jonathan Addleton**

Rector

Forman Christian College University, Lahore

### **Mr. Fazl ur Rehman**

Ex-Chief Secretary

Government of Sindh

### **Mr. Ali Naqvi**

Principal Architect

Ali Arshad Associates

### **Dr. Hasan Tharani**

Managing Director

Barrett Hodgson Pakistan (Pvt) Ltd.

### **Mr. Muhammad Abbas**

Executive Director

Salim Habib University

### **Chief Operating Officer**

The Salim Habib Education Foundation

### **Dr. Muhammad Hussain Habib**

Registrar

Salim Habib University

### **Mr. Noor Ahmed Samoo**

Secretary, Universities & Boards Department, Government of Sindh

### **Dr. Lubna Ayub**

Nominee, Sindh Higher Education Commission (SHEC)

## Two Members of the Provincial Assembly of Sindh

# Academic Council, Salim Habib University

## Chairman

### **Prof. Dr. Syed Irfan Hyder**

Vice Chancellor

Salim Habib University

## Members

### **Prof. Dr. M. Shakeel Ahmed Khan**

Dean Faculty of Science

### **Prof. Dr. Noor Kamil**

Dean Faculty of Pharmacy

### **Prof. Dr. Rizwan Ahmed Khan**

Dean Faculty of Information Technology

### **Prof. Dr. Muhammad Zeeshan Ul Haque**

Dean Faculty of Engineering

### **Prof. Dr. Aqeel Ahmad**

Professor, Department of Biosciences, Faculty of Science

### **Prof. Dr. Hafiz Mushtaq Ahmad**

Professor, Department of Business Administration, Faculty of Management Sciences

### **Prof. Dr. Kaleem Raza Khan**

Chairperson, Department of Social Sciences & Humanities

### **Dr. Sheeraz Arif**

Associate Professor & Chairperson, Department of Computer Science

### **Prof. Dr. Lakhi Muhammad**

Chairperson, Department of Business Administration, Faculty of Management Sciences

### **Dr. Arshad Mahmood**

Associate Professor & Chairperson, Department of Biosciences

### **Dr. Mudassar Azhar**

Chairperson, Department of Basic Medical Sciences, Faculty of Pharmacy

### **Dr. Kashif Arif**

Chairperson, Department of Accounting & Finance, Faculty of Management Sciences

### **Mr. Muhammad Saleem Khan**

Controller of Examination

### **Dr. Muhammad Hussain Habib**

Registrar

### **Mr. Syed Waqar Ul Hasan**

Director QEC

## External members

### **Prof. Dr. Abid Azhar**

Director

Dr. Abdul Qadeer Khan Institute of Biotechnology & Genetic Engineering, Karachi

### **Dr. Izhar Hussain**

Pharmacist & Director

Institute of Business and Health Management (IBHM)

Dow University of Health Sciences (DUHS), Karachi

### **Engr. Prof. Dr. Johar Khurshid Farooqi**

Director QEC

DHA Suffa University, Karachi.

# Objectives

## The Salim Habib Education Foundation

- To impart quality education with state-of-the-art facilities across Pakistan
- To lure domestic and international educationists into the system to ensure quality education
- To inculcate curiosity, creativity and confidence among the Pakistani youth, the future leaders

## Salim Habib University

- To be a leader in the fields of Biomedical Engineering, Biosciences, Pharmaceutical Sciences, Information Technology and Management Sciences
- To promote recognition and support of important interdisciplinary areas in the selected departments to ensure excellence in all disciplines
- To encourage mutually beneficial collaboration between the faculties as well as other universities
- To attract high profile faculty for undertaking thematic research in strategically important academic areas
- To develop and maintain infrastructure for research and creativity through grants, including government and corporate funding
- To create a culture that promotes teaching excellence and pedagogical innovations in academic environments
- To nurture the well-being of our students for lifelong success



## Vision

To serve the society through education, advancement of learning by teaching and research of highest quality and its dissemination.



## Mission

To provide quality and accessible education, effective research, creative thinking abilities and hands-on experience. This will be planned in a manner to benefit society at local, regional, national and international levels. The University is committed to position itself as a distinctive institution; using innovative educational models, exceptional values, and ability to prepare diverse student population with open-minded trust, exemplary service, motivated leadership and personal values.



## Core Values

- Integrity through honoring our commitments
- Communicate, Connect and Compete at all levels
- Discipline with Time Management
- Zero Tolerance to Corruption
- Passion with Positive Mindsets and Initiatives
- Value Teamwork - Winning All The Way



## The SHU Philosophy

At SHU we believe that the difference between good and great curricula is the methodology adopted to transfer knowledge to the ultimate stakeholders – our students. We bring this difference to the fore through the adoption of the ‘SPICES’ curriculum model as a guiding philosophy with the following elements: Student-centered/active learning, Problem/practice based, Integrated, Community/systems-based, Electives, and Systematic approaches. In addition, our curricula through all our programs incorporate research and inter-professional experiences.

Case-based seminars that employ case-based collaborative learning approach; a hybrid of problem-based learning, and team-based learning approaches are offered in the early professional phase of our programs to promote learning in both; small groups to prepare for ‘case-based seminars’; and in tutorial settings with student-directed learning.

### Key components of the curriculum philosophy:

- Systematic curriculum that builds upon a solid foundation of basic courses in the early years
- Utilize active-learning in different settings including web-supported technologies in both large and small class sizes as well as laboratory settings
- Incorporation of case-based learning in a seminar course sequence that runs parallel to the integrated course sequences
- Incorporation of practicum and simulation in a series of courses beginning with the early professional phase of the curriculum with emphasis on skills development and demonstrating effective communication skills
- Integration of research principles and application with a required capstone research project
- Incorporation of elective didactic and experiential education courses
- Design of inter-professional education and practice experiences within the didactic and experiential settings across multiple settings in the healthcare system
- Extensive experiential education



An Artist's Impression of \_\_\_\_\_



# Salim Habib University



## Messages from the Deans



### Faculty of Science

Salim Habib University is committed to transform society through education, learning, and research at the high quality. As Dean Faculty of Science, I am pleased to welcome you to the University.

Faculty of Science presently has one department – Biosciences, which is a fascinating area of biology that is driving major advances in energy, environment, metagenomics, system biology, molecular biology, immunology, virology, tissue culture technology, health, food and nutrition, bio-manufacturing, and the like.

The curriculum for BS-Biosciences is designed to promote innovative learning styles and a solid foundation in applied biosciences. The curriculum is dynamic, internationally aligned, and evolves with the changing requirement of the healthcare, agriculture and industry. Biosciences is applied in almost every field where biological material is handled or tested.

The laboratories of Biosciences, are well-equipped to provide a flexible knowledge and practical skills, giving students a chance to maximize their potential and develop a successful career in academia, industry or commerce.

Department of Biosciences has highly qualified faculty with diversified expertise and experience who facilitates your development by providing deep insights into the discipline of Bioscience. The faculty will develop your technical proficiency to the level that allows you to resolve issues related to life and allied fields, not only at national but also at international level.

Hoping that your stay at SHU campus will be pleasant and stimulating, I wish you every success in future.

**Dr. Arshad Mahmood**  
Associate Professor  
Dean, Faculty of Science



## Faculty of Pharmacy

Welcome to SHU, Faculty of Pharmacy. SHU greatest assets are the students specially our future Pharmacists who can play a significant role in healthcare. We at SHU intend to deliver the best to our students of Pharmacy since the profession of Pharmacy has expanded its role towards patient counselling, drug monitoring, consultation with the physician and are also taking the responsibilities of patient outcome. We apply a multifaceted approach to provide our students with holistic education so that they develop into young professionals, fully cognizant of the Pharmaceutical, clinical and social aspects of their profession. Pharmacy education requires close integration of clinical aspects of Pharmacy with scientific knowledge and practice hence we have developed strong academic collaborations with a number of hospitals and community pharmacies to incorporate clinical visits and provide internships for our students as per our curriculum. Since industries are a backbone in Pharmacy profession, therefore we have developed industrial labs in our campus as well as we shall expose our students to internships and training in different areas of Pharmaceutical industries. We aim to equip our students with knowledge skills and tools that will give them a distinct standing in professional market.

I will expect you to participate in all healthy and academic activities of the Faculty.

**Dr. Noor Kamil**  
**Professor**  
**Dean, Faculty of Pharmacy**



## Faculty of Information Technology

Computing and computer technology are part of just about everything touching our lives today, from the cars we drive to the movies we watch to the many ways we all interact with each other. At times computer science is often confused with the everyday use of computers, such as using internet and web services, downloading and installing different services / apps, playing games etc. Rather, it is the study of principles, applications, and technologies of computing and computers. It involves the systematic study of data and data structures and the algorithms to process these structures; of principles of computer architecture; of addressing particular challenges in areas such as robotics, computer vision, or digital forensics; and of language design and structure.

At SHU, we provide a niche program in computer science. consistent with our vision to be a leader in innovation, research, and dissemination of knowledge we aspire to impart education in an effective and contemporary manner so we can prepare our students to cope with the rapid changes in the market needs. We offer tracks in Data Science / Artificial Intelligence, Network and Security, and Software Engineering. Our faculty consists of members with local and international research and industry experience. What makes us unique is our cross disciplinary collaboration in research and development. SHU will offer flexible study environment where students will be empowered to focus on inter-disciplinary areas as per their motivation.

**Dr. Rizwan Ahmed Khan**  
**Professor**  
**Dean, Faculty of Information Technology**



## Faculty of Engineering

Faculty of Engineering is currently offering a four-year undergraduate degree program in Biomedical Engineering which is based on globally competitive curricula combining theoretical knowledge with hands-on training that allow the students to explore and solve complex engineering problems.

We have highly qualified and experienced faculty members to ensure that the program learning outcomes are achieved. Our teaching methodology accentuate on student-teacher interaction for providing optimal learning environment. We place strong emphasis on Industry-Academia collaboration for which we have set up an Industrial Advisory Board that facilitates the provision of insights on current trends in healthcare industry by arranging guest lectures, seminars, and workshops for the students.

Department of Biomedical Engineering at SHU aims to train and produce the next generation of biomedical engineers, researchers, innovators, and entrepreneurs with analytical and problem solving skills required for the success in the health care industry.

**Dr. M. Zeeshan Ul Haque**  
**Professor**  
**Dean, Faculty of Engineering**

# Full Time Faculty

## Department of Biomedical Engineering



### Dr. M. Zeeshan Ul Haque

Professor

Dean, Faculty of Engineering

Ph.D. (Bioengineering), University of Auckland, New Zealand  
MSc (Medical Electronics & Physics), Queen Mary and Westfield College, University of London, U.K

## Department of Biomedical Engineering



### Dr. Irfan Ahmed Usmani

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### Dr. Syed Mehmoond Ali

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### Engr. Hassan Ali

Lecturer

MS (Biomedical Engineering)

SSUET, Karachi



### Mr. M. Wasim Munir

Assistant Professor

MSc (Biomedical Engineering),

Tampere University of Technology

Finland

MSc (Computer Science) SZABIST,  
Karachi



### Ms. Madiha Imdad

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MS (Applied Mathematics)

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## Department of Biomedical Engineering



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## Department of Biomedical Engineering



**Engr. Muhammad Aamir**

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## Department of Biosciences



### **Dr. Arshad Mahmood**

Professor

#### **Dean, Faculty of Science**

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### **Dr. Aqeel Ahmad**

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### **Dr. Shaheena Anwar**

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M.Sc. (Microbiology), University of Karachi

## Department of Biosciences



### **Dr. Marriam Yamin**

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### **Dr. Afira Waqar**

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### **Ms. Hajira Karim**

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## Department of Pharmacy



**Dr. Noor Kamil**  
Professor  
Dean, Department of Basic Medical Sciences  
Ph.D. (Pharmacology)  
University of Karachi  
MPhil (Biochemistry)  
University of Karachi



**Dr. Mudassar Azhar**  
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## Department of Pharmacy



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## Department of Pharmacy



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Dow University of Health Sciences  
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**Ms. Saba Razzak**

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**Ms. Saman**

Lecturer

MBA (Marketing)  
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**Ms. Asma Rafiq**

Lecturer

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## Department of Pharmacy



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## Department of Computer Science



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**Dean, Faculty of Information Technology**

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## Department of Computer Science



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## Department of Accounting and Finance



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Acting Chairperson

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## Department of Business Administration



### **Dr. Lakhi Muhammad**

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Executive Director/Chief  
Operating Officer



**Dr. Muhammad Hussain Habib**  
Registrar



**Mr. M. Saleem Khan**  
Controller of Examinations



**Dr. M. Shakeel Ahmed Khan**  
Director ORIC



**Mr. Syed Waqar ul Hasan**  
Director QEC & Regulatory Affairs

# Offering Programs in Faculties of

## Undergraduate

 <b>BS Computer Science</b>	 <b>BS Software Engineering</b>	 <b>Doctor of Pharmacy</b>	 <b>BS Cosmetic Sciences</b>	 <b>BS Biosciences</b>
 <b>BS Microbiology</b>	 <b>BS Biotechnology</b>	 <b>BE Biomedical Engineering</b>	 <b>BS Robotics &amp; Intelligent Systems</b>	
 <b>BS Accounting &amp; Finance</b>	 <b>BBA</b>	 <b>BS Business Analytics</b>	 <b>BS Supply Chain Management</b>	
 <b>BS Fintech</b>	 <b>BS Actuarial Science &amp; Risk Management</b>	 <b>BS Content Development &amp; Virality</b>		
 <b>BS Psychology</b>	 <b>BS Digital Arts &amp; Creative Design</b>			

## Postgraduate

 <b>MS Computer Science</b>	 <b>M. Phil. Biosciences</b>	 <b>MBA Weekend</b>	 <b>M. Phil. Pharmacology</b>
 <b>ME Biomedical Engineering</b>			

## Doctorate

 <b>Ph.D. in Computer Science</b>	 <b>Ph.D. in Biosciences</b>	 <b>Ph.D. in Management Sciences</b>
 <b>Ph.D. in Pharmacology</b>	 <b>Ph.D. in Biomedical Engineering</b>	

## BE Biomedical Engineering



## B.E. Biomedical Engineering

Biomedical Engineering (BME) is the fastest growing engineering discipline. This interdisciplinary field combines engineering with medicine and provides innovation to advance the quality of life. It utilizes problem solving skills to design and develop innovative diagnostic, therapeutic and surgical solutions for healthcare. With the increasing utilization of technology in healthcare, the demand for biomedical engineers has grown worldwide.

BME at SHU is a flagship program aimed to produce engineers who have an edge in knowledge and technical skills through enquiry, research and experimentation. Using the state-of-the-art laboratories for ‘device-based learning’ and hands-on training, the program integrates the core knowledge of engineering disciplines biomedical sciences and computer science to understand and resolve problems encountered in living systems. A broad spectrum of technical and professional skills is also offered through research and internship opportunities. The department is geared to facilitate and produce young scientists and entrepreneurs with self-directed learning traits.

Degree Offered	Entry Requirements	Internship Opportunities
B.E. Biomedical Engineering Duration: 4 Years Semesters: 8 Credit Hours: 138	Applicant should: <ul style="list-style-type: none"><li>• Have atleast 60% marks in HSC (Pre-engineering/Pre-medical /Computer Science), A-levels, relevant DAE qualification.</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Healthcare centers and hospitals</li><li>• Research laboratories</li><li>• Medical device industry</li><li>• Pharmaceutical industry</li></ul>

Tracks Offered				
Bio-Medical Instrumentation	Biomechanics	Biomaterials	Bio Signal Processing:	Biomedical Computing
Developing monitoring, diagnostic and therapeutic medical devices using electronic principles and techniques	Studying the mechanics of biological system to develop assistive devices for physically impaired patients	Studying suitable tissues and materials to interact with biological systems for repair, growth and augmentation	Studying of acquisition and processing of various bio signals to analyze physiological processes for clinical investigation	Apply knowledge of computer science and information technology with biology and medicine to reform healthcare systems

Program Objectives	Career Prospects
<ul style="list-style-type: none"><li>• The program enables Biomedical Engineering graduates with ability to apply integrated knowledge of mathematics, biosciences, information technology, engineering and management to identify and solve complex engineering problems and generate novel concepts for the professional and technological development in the healthcare industry.</li><li>• To enable BME graduates to effectively work in multidisciplinary team environments; communicating with a variety of audience, making decisions that are socially and ethically responsible for exhibiting their interpersonal, management and leadership skills.</li><li>• Biomedical engineering graduates who will build and expand upon their undergraduate foundations of knowledge and ethical values by engaging in life-long and continuous learning opportunities for advance career and professional training.</li></ul>	Graduates will find opportunities in: <ul style="list-style-type: none"><li>• Biomedical engineering departments in hospitals</li><li>• Academics and higher education</li><li>• Medical device manufacturers' representatives companies</li><li>• Government regulatory institutions</li><li>• R&amp;D organizations involved in analyzing, modeling and designing medical devices, systems, components or processes</li></ul>

# Curriculum Plan

## Year 1

Semester 1		
Course Code	Course Title	Credit Hours
PHC101	Applied Physics	3
BME101	Introduction to Biomedical Engineering	1
BME102	Introduction to Computing	3
ELE101	Basic Electrical Engineering	4
IST101	Islamic Studies	2
MTH101/BIO101*	Basic Mathematics / Biology	3
ENG100**	Functional English	0
<b>Credit Hours</b>		<b>16</b>

## Year 2

Semester 3		
Course Code	Course Title	Credit Hours
MTH201	Linear Algebra and Differential Equations	3
PHY201	Physiology I	3
ELE201	Circuit Analysis	4
BME201	Computer Aided Engineering Drawing	1
BME202	Biomedical Electronics	4
ANA201	Human Anatomy	3
<b>Credit Hours</b>		<b>18</b>

Semester 2		
Course Code	Course Title	Credit Hours
ENG103	Communication Skills	2
PST101	Pakistan Studies	2
MTH103	Calculus and Analytical Geometry	3
BSC102	Biochemistry	3
CSC103	Object Oriented Programming	4
ELE102	Basic Electronics	4
<b>Credit Hours</b>		<b>18</b>

Semester 4		
Course Code	Course Title	Credit Hours
MTH202	Complex Variables and Transformation	3
ELE203	Digital Logic Design	4
BME203	Biomechanics	4
PHY202	Physiology II	3
BME204	Biomedical Instrumentation I	4
<b>Credit Hours</b>		<b>18</b>

## Year 3

Semester 5		
Course Code	Course Title	Credit Hours
BME301	Biomedical Instrumentation II	4
ELE302	Signals and Systems	4
MTH301	Statistics	3
MTH302	Numerical Analysis	3
ELE301	Microprocessors and Interfacing	3
<b>Credit Hours</b>		<b>17</b>

Internship I (Mandatory)

Semester 6		
Course Code	Course Title	Credit Hours
BME303	Bio-signal Processing	4
BME304	Modeling and Simulation	3
BME305	Biomedical Control Systems	4
CSCxxx***	Elective I	3
BME306	Biomaterials	4
BME300**	Internship Seminar	0
<b>Credit Hours</b>		<b>18</b>

## Year 4

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3
MGT402	Engineering Management	3
ENG401	Technical Report Writing & Presentation Skills	3
BMExxx***	Elective II	3
BMExxx***	Elective III	3
BME449****	Final Year Design Project –I	3
<b>Credit Hours</b>		<b>18</b>

Internship II (Highly Recommended)

Semester 8		
Course Code	Course Title	Credit Hours
BME449****	Final Year Design Project –II	3
BME401	Medical Imaging	3
BME402	Professional Practices & Ethics	3
BMExxx***	Elective IV (System and Standards)	3
BMExxx***	Elective V	3
<b>Credit Hours</b>		<b>15</b>

\*Basic Mathematics for pre-medical students and Biology for pre-engineering students.

\*\*Non-credit

\*\*\* Elective courses to be offered are subject to the availability of resources.

\*\*\*\*Final year project marks calculated in 8th semester

NB: This curriculum plan conforms to the NCRC 2017 guidelines of the Higher Education Commission of Pakistan (HEC). Please refer to SHU website for latest information.

# BS Robotics & Intelligent Systems



# BS Robotics & Intelligent Systems

## Program Introduction

BS in Robotics and Intelligent Systems at Salim Habib University is a four-year degree program designed to equip students with the essential skills and knowledge needed to excel in the rapidly evolving fields of robotics, artificial intelligence (AI), and intelligent systems.

The program, meticulously designed to meet the needs of both academic and industrial careers, ensures that students emerge with and are able to experience:

### Career-Oriented and Marketable Skills

Students will learn how to integrate knowledge from Artificial Intelligence, Robotic Design, and IoT with programming skills to develop solutions for solving real-world problems.

Entry Requirements	Hands-on Learning and Innovative Projects
<p>The applicants should have:</p> <ul style="list-style-type: none"><li>• Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)</li><li>• Clear the Aptitude Test and Interview at Salim Habib University</li></ul>	<p>From Concept to Showcase: Students Designing, Building, and Presenting Their Innovative Project “Robotic Grasper with An Integrated Haptic Feedback Mechanism”</p> <p>The Robotic Grasper with an Integrated Haptic Feedback Mechanism exemplifies the cutting-edge work being done within the Faculty of Engineering. Developed using our state-of-the-art in-house 3D printing facility, this project highlights the advanced capabilities of our engineering students and faculty. Leveraging on-campus 3D printing resources allows us to create highly precise and customized components, ensuring optimal performance and functionality.</p>
<p><b>Program Objectives</b></p> <p>PEO-1: Graduates would be competent individuals in their respective field to meet the technological challenges related to design, develop, and implement intelligent robotic systems for diverse applications.</p> <p>PEO-2: Graduates would reflect moral values, ethical and professional attitude, leadership skills as well as entrepreneurial qualities.</p> <p>PEO-3: Graduates would be able to engage in lifelong learning and support the global community with involvement in emerging technological research and development.</p>	<p>We are especially proud of faculty of Engineering students behind this project—Syeda Fakhra Jalal, Zarish Majid Shaikh, and Mirza Areeb Baig. Their innovative Robotic Grasper has secured 3rd place in the final round of the prestigious IEEE Region 10 Robotics Competition, one of the leading robotics challenges in the Asia-Pacific region. This achievement marks the second consecutive year that a team from SHU has secured a spot in this elite competition, underscoring our commitment to hands-on learning and technological excellence.</p>

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
MTH 101*	Basic Mathematics	3+0
PHC101	Applied Physics	2+1
IST101	Islamic Studies/Ethical Behaviors	2+0
ENG101	Functional English	3+0
CSCxxx	Introduction to Information & Communication Technologies	2+1
ELE101	Basic Electrical Engineering	3+1
RIS101	Engineering Workshop	0+1
<b>Credit Hours</b>		<b>16</b>

Semester 2		
Course Code	Course Title	Credit Hours
ICPxxx	Ideology & Constitution of Pakistan	2+0
XXXXxx	Foreign Language	2+0
MTH103	Calculus & Analytical Geometry	3+0
RIS102	Engineering Mechanics	2+1
CSC103	Object Oriented Programming	3+1
ELE103	Electronics - I	3+1
<b>Credit Hours</b>		<b>18</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
MTH201	Linear Algebra & Differential Equation	3+0
CSCxxx	Data Structures & Algorithm	2+1
ELE203	Digital Logic Design	3+1
BME201	Computer Aided Engineering Drawing	0+1
ELE204	Electronics - II	3+1
RIS241	Introduction to Robotics	2+0
XXXXxx	Occupational Health and Safety	1+0
<b>Credit Hours</b>		<b>18</b>

Semester 4		
Course Code	Course Title	Credit Hours
XXXXxx	Civics and Community Engagement	2+0
MTH202	Complex Variable & Transformation	3+0
MTH301	Statistics	3+0
ELE302	Signals & Systems	2+1
RIS221	Microprocessor and Interfacing	2+1
RIS242	Robotic System & Programming	2+1
<b>Credit Hours</b>		<b>17</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
RIS331	Introduction to Data Science	2+1
RIS211	Digital Signal Processing	3+1
RIS212	Control Systems	3+1
RIS332	Artificial Intelligence	2+1
RIS322	Embedded System	2+1
<b>Credit Hours</b>		<b>17</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
RIS449	Final Year Design Project I	0+3
	Expository Writing	3+0
RIS444	Human-Robot Interaction	3+1
XXXXXX	Elective I	3+0
XXXXXX	Elective II	3+0
<b>Credit Hours</b>		<b>16</b>

Semester 6		
Course Code	Course Title	Credit Hours
MTH302	Numerical Analysis	3+0
RIS313	Digital Image Processing	2+1
RIS333	Introduction to Deep Learning	2+1
RIS323	Sensors & Actuators	3+1
RIS343	Robot Modeling & Control	3+1
<b>Credit Hours</b>		<b>17</b>

Semester 8		
Course Code	Course Title	Credit Hours
RIS449	Final Year Design Project II	0+3
	Principles of Management and Economics	2+0
MGT401	Entrepreneurship	2+0
RIS445	Industrial Automation	2+1
XXXXXX	Elective III	3+0
XXXXXX	Elective IV	3+0
<b>Credit Hours</b>		<b>16</b>

## BS BIOSCIENCES



## BS Biosciences

Pakistan is on the cusp of a scientific revolution and the scope for a profession in Science has never been more exciting. At SHU we provide our students well-equipped laboratories and academic facilities with a focus on research.

The Department of Biosciences embraces the full breadth of modern, vibrant and internationally leading Biosciences program. The program covers all aspects of the field from atoms to the biospheres, that strongly supports multidisciplinary integration and empowering students with flexibility to tailor their education to their skills and interests.

BS Biosciences program offers a conceptual learning experience through interactive classroom sessions and hands on experience through lab work. The graduates will have a better understanding of science, in general, and biological science in particular and will be able to contribute at the national and international levels. They can go on to make a difference as leaders and innovators in academia, biotechnology and health care industry, research institutions, business and finance education and policy.

Twenty first century is the age of Biosciences. Discoveries of stem cells, development of new tools and technologies, advances in computations, and multi-disciplinary approaches have contributed to a biological revolution. Amazing progress is being made in this century. More recently, bioscientists have succeeded in manufacturing artificial organs including heart using 3D bio-printing. Advances in biosciences have helped mankind to save lives, extend the life-span, and improve the quality of life.

Recent Pandemic of Covid-19 has created several opportunities for bioscientists in the area of health sciences including the development of equipment, sanitizers, PPE, vaccines, diagnostic tests, screening test, medicines, epidemiology and public health studies, etc.

Degree Offered	Entry Requirements	Internship Opportunities
BS Biosciences Duration: 4 Years Semesters: 8 Credit Hours: 131	The applicants should: <ul style="list-style-type: none"><li>• Have 45% marks in HSC(Pre-Engineering or Pre-Medical) /A-levels or equivalent qualification</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Pharmaceutical companies</li><li>• Diagnostic laboratories</li><li>• Research institutes</li><li>• Food industry</li><li>• Health related organizations</li></ul>

Tracks Offered			
Molecular Biosciences	Bioinformatics and Computational Biology	Virology & Immunology	Applied Biosciences
Diverse training in exciting areas of molecular biology for problem solving and evaluating clinical and translational research	Develop knowledge and skills for writing computer programs using simple language and their applications in biology	To develop an understanding of natural defense and its modulation. Knowledge about detailed understanding of viruses and viral infections	To explore in detail the applied and practical aspects of biosciences in biotechnology, food, agriculture, environment and health & diseases

### Program Objectives

BS-Biosciences will help students equip with necessary knowledge, skill and aptitude to:

- Comprehend the concept of modern Biosciences and its practical aspects.
- Understand the relationship between various fields of life sciences.
- Develop analytical and critical thinking and enhance interpersonal skills and leadership qualities.
- Produce multi-disciplinary trained graduates.
- Effectively communicate scientific issues with the bioscience fraternity and general public.

### Career Prospects

BS-Biosciences will provide a wide variety of career opportunities and attractive jobs in:

- Agriculture sector
- Biocontrol and bioremediation
- Biotechnological industries
- Food and beverage industries
- Healthcare organizations (Hospitals and diagnostic labs)
- Nutrition and dietetics
- Pharmaceutical industries
- Research and academic organizations
- Various organizations where biological materials are handled or tested
- Nutrition & Dietetics

## Curriculum Plan

### Year 1 (FRESHMEN)

#### Semester 1

Course Code	Course Title	Credit Hours
ENG101	Functional English	3
PST101	Pakistan Studies	2
MAT101 / BIO101	Mathematics/ Basic biology	3
PHI101	Philosophy, Logic & Critical Thinking	3
BSC101	Cell Biology	3
BSC105	Physiology	3
<b>Credit Hours</b>		<b>17</b>

#### Semester 2

Course Code	Course Title	Credit Hours
ENG102	Communication/ Writing Skills	3
IST101	Islamic Studies	2
MTH201	Linear Algebra & Differential Equation	3
BSC102	Biochemistry	3
BSC103	Chemistry	3
BSC104	Fundamentals of Microbiology	3
<b>Credit Hours</b>		<b>17</b>

### Year 2 (SOPHOMORE)

#### Semester 3

Course Code	Course Title	Credit Hours
CSC105	Programming Fundamentals	4
BSC201	Fundamentals of Classical Genetics	3
BSC205	Ecology & Biodiversity	3
BSC207	Cellular Metabolism & Regulation	3
BSC210	Biostatistics	3
PSY101	Psychology	3
<b>Credit Hours</b>		<b>19</b>

#### Semester 4

Course Code	Course Title	Credit Hours
BSC202	Molecular Biology	3
BSC203	Structural Biology	3
BSC204	Fundamentals of Immunology	3
BSC208	Introduction to Biotechnology	3
BSC209	Enzymology	3
ECO102	Microeconomics	3
<b>Credit Hours</b>		<b>18</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
BSC301	Bioinformatics	3
BSC304	General virology	3
BSC305	Pharmacology	3
BSC308	Human Nutrition & Dietetics	3
BSC311	Neuroscience	3
<b>Credit Hours</b>		<b>15</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3
BSC401	Cell and Tissue culture	3
BSC	ELECTIVE-1	3
BSC422	FYP-I	3
ENG401	Technical Report Writing	3
<b>Credit Hours</b>		<b>15</b>

Semester 6		
Course Code	Course Title	Credit Hours
BSC302	Epidemiology & Public Health	3
BSC303	Clinical & Laboratory Diagnostics	3
BSC306	Genetic Engineering & its Applications	3
BSC307	Stem cells & Developmental Biology	3
BSC310	Drug Designing & Development	3
<b>Credit Hours</b>		<b>15</b>

Semester 8		
Course Code	Course Title	Credit Hours
BSC404	Contemporary Biosciences	3
BSC	ELECTIVE-2	3
BSC423	FYP - II	3
BSC	ELECTIVE-3	3
BSC	ELECTIVE-4	3
<b>Credit Hours</b>		<b>15</b>

ELECTIVE COURSES		Credit Hours
1.	Probiotics & Microbiome	3
3.	Proteomics	3
5.	Inflammation: Acute & Chronic diseases	3
7.	Metagenomics in Health & Diseases	3
9.	Green Biotechnology	3

ELECTIVE COURSES		Credit Hours
2.	Cellular and Molecular Biology of Cancer	3
4.	Advance Epidemiology	3
6.	Food Science & Technology	3
8.	Introduction to Genomics and Proteomics in Medicine	3

# BS Microbiology



# BS Microbiology

## Program Introduction

Microbiology is a diverse field encompassing both fundamental and applied sciences. To effectively identify microorganisms and harness their metabolic capabilities for commercial use, microbiologists need a solid understanding of microbial taxonomy, genetics, immunology, and physiology. This discipline focuses on the study of bacteria, viruses, algae, fungi, and protozoa present in our environment, offering insights into their cellular structures and metabolic pathways. Microbiology plays a crucial role in understanding the mechanisms behind infectious diseases, especially highlighted by recent epidemics and pandemics. This has underscored the significance of Microbiology as a promising career path.

Degree Offered	Entry Requirements	Internship Opportunities
BS Microbiology Duration: 4 Years Semesters: 8 Credit Hours: 136	The applicants should: <ul style="list-style-type: none"><li>Have 45% marks in HSC /A-levels or equivalent qualification</li><li>Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>Pathological Laboratories</li><li>Pharmaceutical Companies</li><li>Food and Dairy Processing Industries</li><li>Marine Fisheries</li><li>Water Treatment Facilities</li><li>Biotechnological Firms</li><li>Agriculture</li><li>Research Organizations</li><li>Academic Institutions</li></ul>

Tracks Offered			
Food Science & Technology	Pharmaceutical Sciences	Biotechnology	Immunology Diagnostics
Prepare students to learn and apply online digital media marketing tools and techniques	Prepare students for the application of management skills for the proper use of technology	Designed to produce competent human resource professionals equipped with requisite soft skills	Designed to encompass various functional areas of banking and finance

Program Objectives	Career Prospects
To prepare graduates with knowledge, skills and aptitude to: <ul style="list-style-type: none"><li>To provide students with a solid understanding of various branches of Microbiology, including medical microbiology, immunology, fermentation technology, environmental microbiology.</li><li>To expose students to advanced topics such as Nanobiotechnology and Marine Microbiology, fostering a deeper understanding of the field.</li><li>To ensure students develop competencies in microbiological techniques, enabling them to analyze and address problems involving microorganisms effectively.</li><li>To encourage collaboration across different scientific disciplines, recognizing the interdisciplinary nature of Microbiology.</li><li>To equip students with the skills necessary for a successful career in Microbiology.</li></ul>	Graduates will find opportunities in: <ul style="list-style-type: none"><li>Nanotechnologist and Drug Designing</li><li>Quality Control</li><li>Environmental Microbiologist</li><li>Quality Assurance</li><li>Product Development</li><li>Clinical Microbiologist</li><li>Food Technologist</li><li>Public Health</li><li>Industrial Microbiologist</li></ul>

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
ENG101	Functional English	2+1
IST101	Islamic Studies Islam world religions	2+0
MAT101/BIO101	Mathematics Basic biology	3+0
BSC 102	Biochemistry	2+1
BSC 103	Chemistry	2+1
MIC 101	Fundamentals of Microbiology I	2+1
<b>Credit Hours</b>		<b>17</b>

Semester 2		
Course Code	Course Title	Credit Hours
ENG102	Communication/ Writing Skills	2+1
PST101	Pakistan Studies	2+0
MTH201	Linear Algebra Differential Equation	3+0
BSC 105	Physiology	2+1
PHI101	Philosophy, Logic and Critical Thinking	3+0
MIC102	Fundamentals of Microbiology II	2+1
<b>Credit Hours</b>		<b>17</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
CSC105	Programming fundamentals	3+1
PSY101	Psychology	3+0
BSC-210	Biostatistics	2+1
MGT401	Entrepreneurship	3+0
BSC-207	Cellular Metabolism Regulation	2+1
MIC-202	Community Service	0+2
<b>Credit Hours</b>		<b>18</b>

Semester 4		
Course Code	Course Title	Credit Hours
MIC-203	Medical Microbiology	2+1
MIC-204	Fundamentals of Immunology	2+1
MIC-205	Introduction to metagenomics	3+0
MIC-206	Microbial Taxonomy	2+1
MIC-207	Introduction to Biotechnology	2+1
MIC-208	Bacterial Genetics	2+1
<b>Credit Hours</b>		<b>18</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
BSC-301	Bioinformatics	2+1
MIC-301	General virology	2+1
MIC-302	Soil Marine Microbiology	2+1
MIC-303	Biosafety Biosecurity	2+1
MIC-304	Antimicrobial Agents	2+1
<b>Credit Hours</b>		<b>15</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
ENG401	Technical report writing	3+0
MIC 401	Cell and Tissue culture	3+0
MIC 411	FPY I	0+3
	Elective I	3+0
	Elective II	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 6		
Course Code	Course Title	Credit Hours
MIC-305	Epidemiology Public Health	2+1
MIC-306	Food and Dairy Microbiology	2+1
MIC-307	Introduction to Parasitology	2+1
MIC-308	Genetic Engineering and Its Applications	2+1
MIC-309	Introduction to Mycology	2+1
<b>Credit Hours</b>		<b>15</b>

Semester 8		
Course Code	Course Title	Credit Hours
	Elective III	3
	Elective IV	3
MIC 402	Recent Advances in Microbiology	3
MIC 412	FPY II	0+3
MIC 413	Field Experience/Internship	0+3
<b>Credit Hours</b>		<b>15</b>

## **PHARMACY (PharmD)**



# Pharmacy (PharmD)

Faculty of Pharmacy is a part of Salim Habib University (SHU), founded by The Salim Habib Education Foundation and offering a unique 5 year's Doctor of Pharmacy (Pharm-D) program, for those candidates who are interested to pursue a career in the fields of Health & Pharmaceutical Sciences. The Faculty of Pharmacy is divided into five departments:

- Department of Basic Medical Sciences
- Department of Pharmaceutics
- Department of Pharmaceutical Chemistry
- Department of Pharmacognosy
- Department of Pharmacy Practice

Degree Offered	Entry Requirements	Internship Opportunities
Doctor of Pharmacy (PharmD) Duration: 5 Years Semesters: 10 Credit Hours: 206	The applicants should: <ul style="list-style-type: none"><li>• Have 60% marks in HSC (Pre-Medical) /A-levels or equivalent qualification</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Hospital and Clinical setup</li><li>• Pharmaceutical Industry</li><li>• Regulatory and enforcement bodies</li><li>• Community Pharmacy</li></ul>

Program Objectives	Career Prospects
The Doctor of Pharmacy (Pharm-D) program aims to produce Pharmacists who are: <ul style="list-style-type: none"><li>• Par excellence in the area of Pharmaceutical care, clinical care and research</li><li>• Leaders in Pharmacy education, practice and industry</li><li>• Capable of Providing pharmaceutical care encompassing both the patient Care and community services with commitment, professionalism and ethical responsibilities</li><li>• Use information technology to integrate evidence from scientific studies into practice</li><li>• Able to develop and implement evidence-based programs and protocols, constructed upon the analysis, epidemiological data, pharmacoeconomics, medication-use data and risk reduction strategies</li></ul>	Pharmacy Graduates will find opportunities in the job market but not limited to: <ul style="list-style-type: none"><li>• Institutional (Hospital) Pharmacy</li><li>• Clinical Pharmacy</li><li>• Community Pharmacy</li><li>• Pharmaceutical Industry</li><li>• Academia</li><li>• Research and Development</li><li>• Allied Healthcare Industry</li><li>• Technical Operations in the Pharmaceutical Industry</li><li>• Commercial Operation of Pharmaceutical Industry including sales and marketing</li><li>• Government Legislative Bodies</li><li>• Pharmacy Regulatory Affairs</li><li>• Pharmacy Entrepreneurship</li><li>• Healthcare Insurance Companies</li></ul>

## Our Strengths

Our Pharm-D program is an exclusive, comprehensive and multi-faceted, designed to enhance the professional skills for the practical application in all disciplines of Pharmacy profession through a carefully developed curriculum inspired by ACPE (Accreditation Council for Pharmacy education) guidelines. We aim to provide academic excellence along with the best possible guidance to explore the clinical, community and industrial Pharmacy avenues with research opportunities in Pakistan and abroad.

The expanded role of profession of Pharmacy now requires close integration of clinical aspects of Pharmacy with scientific knowledge and practice. Hence, we have developed state of the art Skills and simulation lab which is the first of its kind, where we prepare our students with the help of simulators and simulating scenarios for both clinical and community pharmacy skills.

SHU is the first university in Pakistan to introduce IPP (introductory Pharmacy practice) and APP (Advanced pharmacy practice) as part of its curriculum. This improvisation connects the theoretical teaching of pharmacy to practice right from the initial years along with accommodating students at practice sites from the 2nd year of Pharmacy. To incorporate clinical visits and provide internships for our students as per our curriculum, we have collaborated with a number of hospitals and community pharmacies, as well as, industries.



## Curriculum Plan

### Year 1

Semester 1		
Course Code	Course Title	Credit Hours
ENG 111	English - A (Functional English)	2
PHM 101	Anatomy & Histology	3
PHM 101(Lab)	Anatomy & Histology	1
PHM 103	Physiology - A	3
PHM 103 (Lab)	Physiology - A	1
PHM 105	Pharmaceutics - IA (Physical Pharmacy)	3
PHM 105 (Lab)	Pharmaceutics - IA (Physical Pharmacy)	1
PHM 107	Pharmaceutical Chemistry - IA (Organic)	2
PHM 107 (Lab)	Pharmaceutical Chemistry - IA (Organic)	1
PHM 109	Pharmaceutical Chemistry - IIA (Biochemistry)	3
PHM 109 (Lab)	Pharmaceutical Chemistry - IIA (Biochemistry)	1
Credit Hours		21

Semester 2		
Course Code	Course Title	Credit Hours
ENG 112	English - B (Communication & Writing skills)	4
PHM 102	Physiology - B	3
PHM 102 (Lab)	Physiology - B	1
PHM 104	Pharmaceutics - IB (Physical Pharmacy)	3
PHM 104 (Lab)	Pharmaceutics - IB (Physical Pharmacy)	1
PHM 106	Pharmaceutical Chemistry - IB (Organic)	2
PHM 106 (Lab)	Pharmaceutical Chemistry - IB (Organic)	1
PHM 108	Pharmaceutical Chemistry - IIB (Biochemistry)	3
PHM 108 (Lab)	Pharmaceutical Chemistry - IIB (Biochemistry)	1
PHM 110	Pharmacy Practice - IA (Pharmaceutical Mathematics)	3
Credit Hours		22

## Year 4

Semester 7		
Course Code	Course Title	Credit Hours
PHM 401	Pharmaceutical Chemistry - IIIA (Pharmaceutical Analysis)	3
PHM 401 (Lab)	Pharmaceutical Chemistry - IIIA (Pharmaceutical Analysis)	1
PHM 403	Pharmacy Practice -VIA (Advanced Clinical Pharmacy II)	3
PHM 403 (Lab)	Pharmacy Practice -VIA (Advanced Clinical Pharmacy II)	1
PHM 405	Pharmaceutics - IVA (Industrial Pharmacy)	3
PHM 405 (Lab)	Pharmaceutics - IVA (Industrial Pharmacy)	1
PHM 407	Pharmaceutics - VA (Biopharmaceutics & Pharmacokinetics)	3
PHM 407 (Lab)	Pharmaceutics - VA (Biopharmaceutics & Pharmacokinetics)	1
PHM 409	Pharmaceutics - VIA (Pharmaceutical Quality Management)	3
PHM 409 (Lab)	Pharmaceutics - VIA (Pharmaceutical Quality Management)	1
<b>Credit Hours</b>		<b>20</b>

Semester 8		
Course Code	Course Title	Credit Hours
PHM 402	Pharmaceutical Chemistry - IIIB (Pharmaceutical Analysis)	3
PHM 402 (Lab)	Pharmaceutical Chemistry - IIIB (Pharmaceutical Analysis)	1
P1HM 404	Pharmacy Practice - VIB (Advanced Clinical Pharmacy-II)	3
PH3M 404 (Lab)	Pharmacy Practice - VIB (Advanced Clinical Pharmacy-II)	1
PHM 406	Pharmaceutics - IVB (Industrial Pharmacy)	3
PHM 406 (Lab)	Pharmaceutics - IVB (Industrial Pharmacy)	1
PHM 408	Pharmaceutics - VB (Biopharmaceutics & Pharmacokinetics)	3
PHM 408 (Lab)	Pharmaceutics - VB (Biopharmaceutics & Pharmacokinetics)	1
PHM 410	Pharmaceutics - VIB (Pharmaceutical Quality Management)	3
PHM 410 (Lab)	Pharmaceutics - VIB (Pharmaceutical Quality Management)	1
<b>Credit Hours</b>		<b>20</b>

## Year 5

Semester 9		
Course Code	Course Title	Credit Hours
PHM 501	Pharmaceutics-VIIA (Pharmaceutical Technology)	3
PHM 501 (Lab)	Pharmaceutics-VIIA (Pharmaceutical Technology)	1
PHM 503	Pharmacy Practice -VIIA (Forensic Pharmacy)	3
PHM 505	Pharmacy Practice -VIIIA (Pharmaceutical Management & Marketing)	3
PHM 507	Pharmaceutical Chemistry - IVA (Medicinal Chemistry)	3
PHM 507 (Lab)	Pharmaceutical Chemistry - IVA (Medicinal Chemistry)	1
PHM 509	Pharmacy Practice - XII A (Advanced Clinical Pharmacy III)	2
PHM 511 (Lab)	Pharmacy Practice - XI A (Advanced Pharmacy Practice Experience)	2
PHM 513 (Lab)	Pharmacy Practice - IX (Research Methodology)	1
<b>Credit Hours</b>		<b>19</b>

Semester 10		
Course Code	Course Title	Credit Hours
PHM 502	Pharmaceutics - VIIB (Pharmaceutical Technology)	3
PHM 502 (Lab)	Pharmaceutics - VIIB (Pharmaceutical Technology)	1
PHM 504	Pharmacy Practice - VIIB (Forensic Pharmacy)	3
PHM 506	Pharmacy Practice - VIIIB (Pharmaceutical Management and Entrepreneurship)	3
PHM 508	Pharmaceutical Chemistry - IVB (Medicinal Chemistry)	3
PHM 508 (Lab)	Pharmaceutical Chemistry- IVB (Medicinal Chemistry)	1
PHM 510	Pharmacy Practice - XII B (Advanced Clinical Pharmacy III)	2
PHM 512 (Lab)	Pharmacy Practice - XI B (Advance Pharmacy Practice Experience)	2
<b>Credit Hours</b>		<b>18</b>

**NB:** This curriculum plan conforms to the current guidelines of the Higher Education Commission of Pakistan (HEC) for the program. These are subject to change by the HEC. Please refer to SHU website for latest information.

## BS Cosmetics Sciences



# BS Cosmetics Sciences

## Program Introduction

Cosmetology is a science and an art. The Bachelor of Cosmetic Sciences program is a 4-year laboratory-based program which combines the knowledge of science with art, amalgamated with business aspects, with the aim of producing and marketing cosmetic and personal care products.

This course is designed for candidates who have a flare for aesthetics, pleasant appearance, and beauty care services. It covers key aspects of chemistry, physiology, anatomy, dermatology and other sciences, with a focus on the nuances of Cosmetic Sciences, such as the definition and significance of cosmetics, biological systems, formulation and product development, manufacturing and quality management, sales and marketing, product stewardship, regulatory compliance, marketing and business framework, and an understanding of the processes of the conversion of raw materials into finished cosmetic products.

## Course Structure

The basic concepts of this discipline will be strengthened initially, followed by a more in-depth exploration of formulations, lab, and industrial scale manufacturing, professional practices and regulation, leading towards the selection of a specialty or major through elective subjects. The program will conclude with a capstone project, which will demonstrate the summation of the total learning of the discipline, possibly leading to job placement opportunities.

In earlier semesters, students will be introduced to cosmetology, the human body, and the basics of the natural sciences. They will acquire knowledge of materials and develop skills to formulate, control, and assure the quality of specific cosmetic products. The program offers a choice between two specializations: Industrial Cosmetology or Applied Beauty Care. Additionally, students will gain insight into the diverse legislative and regulatory frameworks governing cosmetics and related products.

## Entry Requir

The applicants should have:

- Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)
- Clear the Aptitude Test and Interview at Salim Habib University

## Career Prospects

Graduates will find opportunities in:

- Cosmetic Formulation Scientist
- Product Development Manager
- Quality Control/Accuracy Specialist
- Regulatory Affairs Specialist
- Research and Development Scientist
- Sales and Marketing Executive
- Brand Manager
- Production Supervisor
- Consultant/Trainer
- Entrepreneurial Opportunities:  
Start a Cosmetic Product Line  
Cosmetic Retail Store  
Cosmetic Ingredient Supply Business  
Beauty Salon/Spa  
Cosmetic Product Distribution  
Contract Manufacturing  
Cosmetic Packaging Design and Manufacturing  
Cosmetic Regulatory Consulting  
Cosmetic Research and Development Lab
- Regulatory Compliance
- Market Research

## Program Objectives

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

- Develop new cosmetic products, formulate and improve existing products, and manufacture, market and sell cosmetic products.
- Source and select various natural or synthetic raw materials for development of cosmetic products.
- Select and analyze raw materials and finished products against regulatory requirements to ensure compliance.
- Summarize and communicate ethical, health and environmental concerns to relevant stakeholders.

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
ENG301	English - A (Business and Functional English)	3
CS303	Core Concepts in Cosmetic Science	3
CS305	Human Anatomy	2
CS307	Basic Principles of Chemistry in Cosmetic Science	3
CS307 (Lab.)	Basic Principles of Chemistry in Cosmetic Science	1
CS309	Microbiology & Immunology in Cosmetic Science	3
CS309 (Lab.)	Microbiology & Immunology in Cosmetic Science	1
CS311	Philosophy and Psychology of Aesthetics	2
<b>Credit Hours</b>		<b>18</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
IST401	Islamic Studies	2
CS403	Materials and Ingredients in Cosmetic Products	3
CS405	Cosmetics and Personal Care	3
CS407	Formulation Development of Cosmetic Products	3
CS407 (Lab.)	Formulation Development of Cosmetic Products	1
CS409	Dermatology and Allergies	2
ICT411	Information and Communication	2
ICT411 (Lab.)	Technology Applications	1
	Information and Communication	
	Technology Applications	
<b>Credit Hours</b>		<b>17</b>

Semester 2		
Course Code	Course Title	Credit Hours
ENG302	English - B (Communication & Writing skills)	3
CS304	Cosmetic Product Forms	3
CS306	Human Physiology	2
CS308	Cosmeceutical Chemistry	3
CS308 (Lab.)	Cosmeceutical Chemistry	1
MTA310	Concepts of Mathematics and Accounting	2
BS312	Bio-statistics	2
<b>Credit Hours</b>		<b>16</b>

Semester 4		
Course Code	Course Title	Credit Hours
PST402	Pakistan Studies	2
CS404	Designing and Formulation of new Cosmetics	3
CS 404 (Lab.)	Designing and Formulation of new Cosmetics	1
CS406	Drugs as Cosmetics	2
CS408	Ethics and Values in Cosmetic Science	2
CS410	Cosmetic Procedures	3
CS410 (Lab.)	Cosmetic Procedures	1
<b>Credit Hours</b>		<b>14</b>

### Year 3 (JUNIOR)

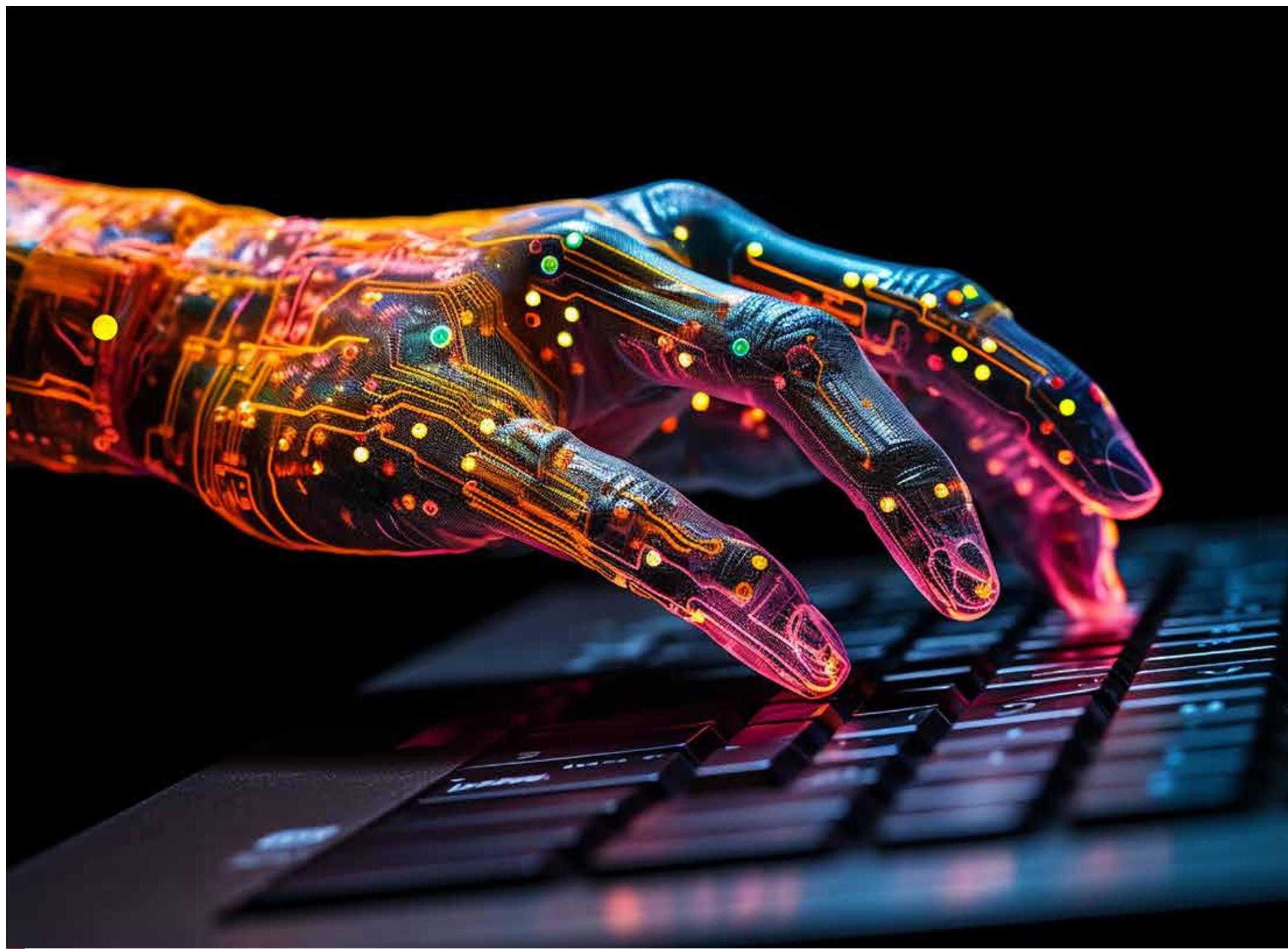
Semester 5		
Course Code	Course Title	Credit Hours
CS501	Research Methodology	2
CS503	Quality Assurance and Control of Cosmetic Products	3
CS503 (Lab.)	Quality Assurance and Control of Cosmetic Products	1
CS505	Product Stability, Safety and Toxicology of Cosmetics	3
CS505 (Lab.)	Product Stability, Safety and Toxicology of Cosmetics	1
CS507	Elective - 1	3
<b>Credit Hours</b>		<b>13</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
CS601	Business Development, Marketing and Sales of Cosmetics	3
CS601 (Lab.)	Business Development, Marketing and Sales of Cosmetics	1
CS603	Supply Chain and Distribution of Cosmetic Products	2
CS603 (Lab.)	Supply Chain and Distribution of Cosmetic Products	1
CS605	Capstone Project	3
CS607	Local and Export Markets of Cosmetics	2
CS609	Elective – 3	3
CS611	Elective – 4	3
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
CS502	Commercial Scale Manufacturing of Cosmetics	3
CS502 (Lab.)	Commercial Scale Manufacturing of Cosmetics	1
CS504	Green Cosmetic Products	3
CS504 (Lab.)	Green Cosmetic Products	1
CS506	Aromatic Science - Perfumes and Fragrances	2
CS506 (Lab.)	Aromatic Science - Perfumes and Fragrances	1
CS508	Elective – 2	3
<b>Credit Hours</b>		<b>14</b>

Semester 8		
Course Code	Course Title	Credit Hours
CS602	Entrepreneurship in Cosmetic Industry	3
CS604	Digital Marketing and Social Media	2
CS606	Regulatory Affairs of Cosmetics	3
CS608	Health, Longevity and Anti-aging	3
CS610	Field Visits	3
<b>Credit Hours</b>		<b>14</b>



# BS COMPUTER SCIENCE



# BS Computer Science

The BS Computer Science program at SHU offers an exceptional blend of theoretical research and extensive practical training. It molds its students into skillful professionals ready to take up real-world challenges in their professional lives. A strong curriculum is offered by highly qualified PhD and MS faculty with reputable accomplishments in research, academic publications and industrial projects.

You are expected to develop an understanding of programming languages and acquire skills to coding creatively solve complex problems. You should develop expertise in state-of-the-art approaches to a diverse set of technologies and market-oriented skills and interact with internationally renowned research groups. You will be engaged in interdisciplinary activities to grasp fundamental technical knowledge. The program imparts the essential skills employers expect from top-quality computer science graduates and will prepare you for employment in a wide variety of industries as we envisage to see our graduates to be of diverse efficacy to higher education and in almost every sphere of life where computer skills are required.

Degree Offered	Entry Requirements	Internship Opportunities
BS Computer Science Duration: 4 Years Semesters: 8 Credit Hours: 131	The applicants should have: <ul style="list-style-type: none"><li>• “Minimum 50% marks in HSC (Pre Engineering, Pre-Medical, Computer Science), or equivalent qualifications recognized by IBCC”</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Software houses</li><li>• Technology incubators</li><li>• E-Commerce startups</li><li>• Pharmaceutical companies</li><li>• Financial institutions/banks</li><li>• Manufacturing industry</li><li>• Multinational corporations</li></ul>

Software Engineering		Tracks Offered
	Network and Security	Artificial Intelligence
Develops knowledge and skills in computer programming, mobile programming, web development, and information security	Develops knowledge and skills in understanding network, routing, switching and security management	Develops knowledge and skills in the field of big data analytics, data mining and Machine learning

Program Objectives	Career Prospects
<p>The program objectives are to prepare graduates with deep knowledge and outstanding computational skills that make them able to:</p> <ul style="list-style-type: none"><li>• Demonstrate a sound understanding of computing fundamentals with an ability to exercise critical judgment across a range of related issues.</li><li>• Critically analyze and design solutions for complex computing problems with best practices and use of modern tools and techniques.</li><li>• Function and communicate effectively as an individual and as a leader / member of a team having understanding of professional ethics and social responsibility.</li><li>• Adapt technological advancements through active participation in life-long learning to serve society.</li></ul>	<p>Graduates will find opportunities in:</p> <ul style="list-style-type: none"><li>• Technology Entrepreneurship</li><li>• Data Science/Machine Learning and Artificial Intelligence based Industry</li><li>• Game Development/Graphic Designing</li><li>• Mobile Application/Web Development</li><li>• Software Engineering</li><li>• Ethical Hacking</li><li>• Information System Security Analysis</li><li>• Network and System Administration</li><li>• Business Intelligence Development</li><li>• Web Design and Development</li></ul>

# Curriculum Plan For Pre-Engineering Students

## Year 1

Semester 1		
Course Code	Course Title	Credit Hours
CSC105	Programming Fundamentals	3+1
CSC104	Introduction to Information and Communication Technologies	2+1
MTH103	Calculus and Analytical Geometry	3
ENG101	Functional English	2+1
PST101	Pakistan Studies	2
<b>Credit Hours</b>		<b>15</b>

## Year 2

Semester 3		
Course Code	Course Title	Credit Hours
ELE204	Digital Logic Design (Prerequisites: PHC103)	3+1
CSC201	Data Structures and Algorithms (Prerequisites: CSC103)	3+1
ENG106	Presentation and Communication Skills (Prerequisites ENG101)	2+1
MTH208	Linear Algebra	3
XXXX	General Elective – I	3
<b>Credit Hours</b>		<b>17</b>

Semester 2		
Course Code	Course Title	Credit Hours
CSC103	Object Oriented Programming (Prerequisites: CSC105)	3+1
CSC210	Discrete Structures	3
PHC103	Applied Physics	3
MTH111	Multivariate Calculus (Prerequisites: MTH103)	3
IST102	Islam and World Religions	2
<b>Credit Hours</b>		<b>15</b>

Semester 4		
Course Code	Course Title	Credit Hours
CSC202	Computer Organization and Assembly Language (Prerequisites: CSC105)	3+1
MTH301	Statistics	3
MTH302	Numerical Analysis (Prerequisites:MTH103)	3
XXXX	General Elective – II	3
MTH209	Differential Equations (Prerequisites: MTH103)	3
HUS201	Community Service	1
<b>Credit Hours</b>		<b>17</b>

\* Non Credit

### Year 3

Semester 5		
Course Code	Course Title	Credit Hours
CSC303	Theory of Automata	3
CSC301	Operating Systems (Prerequisites: CSC201)	3+1
CSC302	Software Engineering	3
CSC304	Database Systems (Prerequisites: CSC201)	3+1
CSC407	Artificial Intelligence (Prerequisites: CSC201)	3+1
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
CSC305	Computer Networks	3+1
CSC306	Design & Analysis of Algorithms (Prerequisites: CSC201)	3
CSCXXXX	CS Elective – I	3
CSCXXXX	CS Elective – II	3
XXXX	General Elective – III	3
<b>Credit Hours</b>		<b>16</b>

### Year 4

Semester 7		
Course Code	Course Title	Credit Hours
CSC401	Final Year Project – I (Prerequisites: CSC302, CSC304)	3
CSC402	Parallel and Distributed Computing (Prerequisites: CSC301)	3
CSC404	Information Security	3
CSCXXXX	CS Elective – III	3
ENG201	Technical and Business Writing (Prerequisites: ENG106)	3
CSC405	Professional Practices	3
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
CSC403	Final Year Project – II (Prerequisites: CSC401)	3
CSC406	Compiler Construction (Prerequisites: CSC303)	3
CSCXXXX	CS Elective – IV	3
CSCXXXX	CS Elective – V	3
XXXX	General Elective– IV	3
<b>Credit Hours</b>		<b>15</b>

**NB:** This curriculum plan conforms to the current guidelines of the Higher Education Commission of Pakistan (HEC) for the program. These are subject to change by the HEC. Please refer to SHU website for latest information.

# Curriculum Plan For Pre-Medical Students

## Year 1

Semester 1		
Course Code	Course Title	Credit Hours
CSC105	Programming Fundamentals	3+1
CSC104	Introduction to Information and Communication Technologies	2+1
MTH110 *	Basic Mathematics I	0
ENG101	Functional English	2+1
PHC103	Applied Physics	3
PST101	Pakistan Studies	2
<b>Credit Hours</b>		<b>15</b>

## Year 2

Semester 3		
Course Code	Course Title	Credit Hours
MTH103	Calculus and Analytical Geometry	3
CSC201	Data Structures and Algorithms (Prerequisites: CSC103)	3+1
XXXX	General Elective – II	3
CSC210	Discrete Structures	3
XXXX	General Elective – III	3
<b>Credit Hours</b>		<b>16</b>

Semester 2		
Course Code	Course Title	Credit Hours
CSC103	Object Oriented Programming Prerequisites: CSC105	3+1
ENG106	Presentation and Communication Skills (Prerequisites: ENG101)	2+1
ELE203	Digital Logic Design (Prerequisites: PHC103)	3+1
MTH120 *	Basic Mathematics II	0
XXXX	General Elective – I	3
IST102	Islam and World Religions	2
<b>Credit Hours</b>		<b>16</b>

Semester 4		
Course Code	Course Title	Credit Hours
CSC202	Computer Organization and Assembly Language (Prerequisites: CSC105)	3+1
MTH111	Multivariate Calculus (Prerequisites: MTH103)	3
CSC304	Database Systems (Prerequisites: CSC201)	3+1
MTH208	Linear Algebra	3
MTH301	Statistics	3
HUS201	Community Service	1
<b>Credit Hours</b>		<b>18</b>

\* Non Credit

### Year 3

Semester 5		
Course Code	Course Title	Credit Hours
CSC303	Theory of Automata	3
CSC301	Operating Systems (Prerequisites: CSC201)	3+1
CSC302	Software Engineering	3
MTH209	Differential Equations (Prerequisite: MTH103)	3
CSC407	Artificial Intelligence (Prerequisites: CSC210)	3+1
<b>Credit Hours</b>		<b>17</b>

Semester 6		
Course Code	Course Title	Credit Hours
CSC305	Computer Networks	3+1
CSC306	Design & Analysis of Algorithms (Prerequisites: CSC201)	3
CSCXXXX	CS Elective – I	3
CSCXXXX	CS Elective – II	3
MTH302	Numerical Analysis (Prerequisites: MTH103)	3
<b>Credit Hours</b>		<b>16</b>

### Year 4

Semester 7		
Course Code	Course Title	Credit Hours
CSC401	Final Year Project–I Prerequisites: CSC304, CSC302	3
CSC402	Parallel and Distributed Computing (Prerequisites: CSC301)	3
CSC404	Information Security	3
CSCXXX	CS Elective – III	3
ENG201	Technical and Business Writing (Prerequisites: ENG106)	3
CSC405	Professional Practices	3
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
CSC403	Final Year Project–II (Prerequisites: CSC401)	3
CSC406	Compiler Construction (Prerequisites: CSC303)	3
CSCXXX	CS Elective – IV	3
CSCXXX	CS Elective – V	3
XXXXXX	General Elective – IV	3
<b>Credit Hours</b>		<b>15</b>

**NB:** This curriculum plan conforms to the current guidelines of the Higher Education Commission of Pakistan (HEC) for the program. These are subject to change by the HEC. Please refer to SHU website for latest information.

## LIST OF ELECTIVES

S. No	Courses	Domain	Credit Hours
1	Mobile Application Development	Software Engineering	3
2	Web Engineering	Software Engineering	3
3	Software Quality Assurance	Software Engineering	3
4	Enterprise Resource Planning	Software Engineering	3
5	Simulation and Modelling	Software Engineering	3
6	DevOps	Software Engineering	3
7	Computer Vision	Artificial Intelligence	3
8	Data Science	Artificial Intelligence	3
9	Big Data Analytics	Artificial Intelligence	3
10	Machine Learning	Artificial Intelligence	3
11	Natural Language Processing	Artificial Intelligence	3
12	Human Computer Interaction	Artificial Intelligence	3
13	Deep Learning	Artificial Intelligence	3
14	Internet of Things	Network and Security	3
15	Digital Forensics	Network and Security	3
16	Cloud Computing	Network and Security	3
17	Ethical Hacking	Network and Security	3
18	Blockchain Technologies	Network and Security	3

# BS Software Engineering



# BS Software Engineering

## Program Introduction

The Software Engineering program at Salim Habib University is dedicated to producing highly skilled and adaptable professionals who drive technological innovation and contribute to the global growth and success of various industries. Our comprehensive and rigorous curriculum equips students with the knowledge, skills, and mindset needed to excel in the ever-evolving field of software engineering. We foster a collaborative and inclusive learning environment, promote industry engagement, and emphasize the sustainable development of the global human society.

## Career-Oriented and Marketable Skills

The curriculum is tailored to cultivate career-focused competencies and entrepreneurial skills. Students acquire marketable expertise that prepares them for diverse professional opportunities and entrepreneurial ventures in the technology sector.

Entry Requir	Career Prospects
<p>The applicants should have:</p> <ul style="list-style-type: none"><li>• Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)</li><li>• Clear the Aptitude Test and Interview at Salim Habib University</li></ul>	<p>Graduates will find opportunities in:</p> <ul style="list-style-type: none"><li>• Technology Entrepreneurship</li><li>• Data Science/Machine Learning and Artificial Intelligence based Industry</li><li>• Game Development/Graphic Designing</li><li>• Mobile Application/Web Development</li><li>• Software Engineering</li><li>• Ethical Hacking</li><li>• Information System Security Analysis</li><li>• Network and System Administration</li><li>• Business Intelligence Development</li><li>• Web Design and Development</li></ul>
Program Objectives	<p>The program objectives are to prepare graduates with deep knowledge and outstanding computational skills that make them able to:</p> <ul style="list-style-type: none"><li>• Demonstrate a sound understanding of computing fundamentals with an ability to exercise critical judgment across a range of related issues.</li><li>• Critically analyze and design solutions for complex computing problems with best practices and use of modern tools and techniques.</li><li>• Function and communicate effectively as an individual and as a leader / member of a team having understanding of professional ethics and social responsibility.</li><li>• Adapt technological advancements through active participation in life-long learning to serve society.</li></ul>

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
CSC105	Programming Fundamentals	3+1
CSC107	Application of Information & Communication Technologies	
	1+1	
PHC103	Applied Physics	3+0
MTH103	Calculus and Analytic Geometry	3+0
ENG101	Functional English	2+1
<b>Credit Hours</b>		<b>15</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
CSC201	Data Structures and Algorithms	3+1
ENG106	Presentation & Communication Skills	2+1
MTH208	Linear Algebra	3+0
IST102	Islam and World Religions	2+0
SEC2xx	Software Requirement Engineering	3+0
MTH301	Statistics	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 2		
Course Code	Course Title	Credit Hours
CSC103	Object Oriented Programming	3+1
CSC210	Discrete Structures	3+0
ELE205	Digital Logic Design	2+1
MTH111	Multivariable Calculus	3+0
SEC1xx	Introduction to Software Engineering	3+0
<b>Credit Hours</b>		<b>16</b>

Semester 4		
Course Code	Course Title	Credit Hours
CSC203	Computer Organization & Assembly Language	2+1
SEC2xx	Software Design & Architecture	3+0
CSC304	Database Systems	3+1
CSC306	Design & Analysis of Algorithms	3+0
HUS208	Civics and Community Engagement	1+1
MGT101	Introduction to Management	2+0
<b>Credit Hours</b>		<b>17</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
CSC301	Operating Systems	3+1
CSC407	Artificial Intelligence	3+1
CSC305	Computer Networks	3+1
XXXX	Domain Elective (1)	3+0
SEC3xx	Software Construction & Development	2+1
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
SEC3xx	Software Project Management	3+0
MTK401	Entrepreneurship	2+0
XXXX	Domain Elective (2)	3+0
SEC3xx	Software Quality Engineering	3+0
XXXX	Domain Elective (3)	3+0
XXXX	Domain Elective (4)	3+0
<b>Credit Hours</b>		<b>17</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
CSC401	Final Year Project – I	0+3
XXXX	Domain Elective (5)	3+0
CSC404	Information Security	3+0
ENG201	Technical & Business Writing	3+0
CSC402	Parallel & Distributed Computing	3+0
MKT101	Introduction to Marketing	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
CSC403	Final Year Project – II	0+3
PST101	Pakistan Studies	2+0
CSC405	Professional Practices	3+0
XXXX	Domain Elective (6)	3+0
XXXX	Domain Elective (7)	3+0
<b>Credit Hours</b>		<b>14</b>

## BS ACCOUNTING AND FINANCE



# BS Accounting and Finance

The program includes: one, the body of knowledge of major accounting certifications offered by ICAP, ACCA, ICMAP and CIMA; two, the functional areas of the business necessary for developing a holistic understanding of a business enterprise; and three, courses within the realm of humanities, social sciences, and personal development that provide students with the intellectual grounding needed for creative thinking and strategy development.

The program focuses on developing technical knowledge and skills associated with Accounting and Finance, and their auxiliary areas like Audit, Banking, and Taxation. Hands-on understanding of the operations of national and international financial markets and instruments, including Pakistan Stock Exchange, Pakistan Mercantile Exchange, NYSE, NASDAQ, CBOT, LSE, forms a primary learning competency of the program. Intellectual grooming necessary for critical thinking, brainstorming and idea generation, and insight into the real business environment through experiential learning courses based on action-learning methodological approach are also major components of the program.

Degree Offered	Entry Requirements	Internship Opportunities
BS Accounting and Finance Duration: 4 Years Semesters: 8 Credit Hours: 136	The applicant should: <ul style="list-style-type: none"> <li>• Have 45% marks in HSC/A-level or equivalent qualification</li> <li>• Qualify the Aptitude Test and Interview</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial Banks</li> <li>• Audit firms</li> <li>• Brokerage houses</li> <li>• Insurance companies</li> <li>• Multinational corporations</li> <li>• Venture Capital Firms</li> <li>• Corporate treasuries</li> <li>• Multinational corporations</li> <li>• Regulatory bodies</li> <li>• Management consultancies</li> </ul>

Tracks Offered				
Financial and Management Accounting	Corporate Finance	Capital Markets and Investment Management	Auditing and Taxation	Banking and Risk Management
Provides in-depth conceptual and technical knowledge of Accounting with rigorous application of international financial reporting standards	This track features a platform for discussing the value impact of tactical and strategic financial activities such as working capital management, capital structure decision, capital budgeting decisions, and important business decisions in corporate acquisitions and restructuring	This track focuses on areas such as Equity and Fixed-income Analysis, Institutional and Private Wealth Management, Financial Derivatives, and various types of money management frameworks	The track covers the concepts, practices, and regulations in the fields of auditing and taxation	This track deals with: <ul style="list-style-type: none"> <li>• Management of financial institutions with an emphasis on credit management, asset liability management, and regulatory compliances.</li> <li>• Risk management of financial and non-financial institutions with an emphasis on interest rate risk management, credit risk management, market risk management, operational risk management, currency risk management, and related regulations</li> </ul>

Program Objectives	Career Prospects
To equip graduates with contemporary and marketable knowledge, skill-sets, and personality traits to: <ul style="list-style-type: none"> <li>• Enable them to work Proficiently in an accounting or finance department at an entry level managerial position</li> <li>• Embark on studies at post graduate and doctorate levels</li> <li>• Pursue accounting certifications such as CFA, CA, ACCA, ICMAP, ACMA(UK), CMA(USA), FRM(USA), and CIA(USA).</li> </ul>	Graduates will find opportunities in: <ul style="list-style-type: none"> <li>• Commercial banks, Insurance companies, and Finance companies</li> <li>• Investment banks, AMCs, and brokerage houses</li> <li>• Audit firms and tax advisory consultancies</li> <li>• Accounting and finance departments</li> <li>• Risk management and Compliance departments</li> <li>• Management consultancies</li> <li>• Consumer banking departments</li> <li>• Structured product departments</li> </ul>

# Curriculum Plan

## Year 1

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	3
ENG101	Functional English	3
ACC101	Introduction to Accounting	3
MGT101	Principles of Management and Leadership	3
HUM101	Foundation of Human Behavior	3
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3
MTH107	Business Mathematics	3
MKT101	Principles of Marketing	3
ACC106	Financial Accounting and Corporate Reporting	3
IST102	Islam and World Religions	2
PDV103	Personal Development and Career Planning	2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP100	Industry Immersion Project - I (Community Service)	0
<b>Credit Hours</b>		<b>0</b>

## Year 2

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3
MTH104	Introduction to Business Analytics	3
FIN206	Introduction to Finance	3
PHI101	Philosophy, Logic, and Critical Thinking	3
ACC202	Computerized Accounting Applications	3
PST101	Pakistan Studies	2
<b>Credit Hours</b>		<b>17</b>

Semester 4		
Course Code	Course Title	Credit Hours
ACC201	Advanced Financial Accounting and Reporting	3
ACC203	Cost Management	3
FIN204	Financial Management	3
FIN207	Emerging Trends in Accounting & Finance	2
ECO203	Macroeconomics	3
PDV203	Arts and Literature	2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP200	Industry Immersion Project - II (Corporate)	0
<b>Credit Hours</b>		<b>0</b>

### Year 3

Semester 5		
Course Code	Course Title	Credit Hours
ENG306	Applied Business Communication	3
FIN302	Financial Institutions and Markets	3
LAW202	Legal Environment for Business in Pakistan	3
ACC303	Performance Management	3
MTH304	Business Analytics (Modelling & Forecasting)	3
ACC210	Audit & Assurance	3
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
FIN303	Regulations & Financial Markets	3
CSC307	Introduction to MIS and ERP	3
ACC304	Financial Statement Analysis	3
FIN304	Investment Analysis	3
ACC302	Data Analytics for Accounting & Finance	3
MGT305	Business Research Methods	3
<b>Credit Hours</b>		<b>18</b>

### Year 4

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3
FIN411	Islamic Finance	3
ACC402	Principles of Taxation	3
FIN409	Derivatives and Risk Management	3
XXXXxx*	Accounting/Finance Elective-I	3
MGT407	ELP -1	3
<b>Credit Hours</b>		<b>18</b>

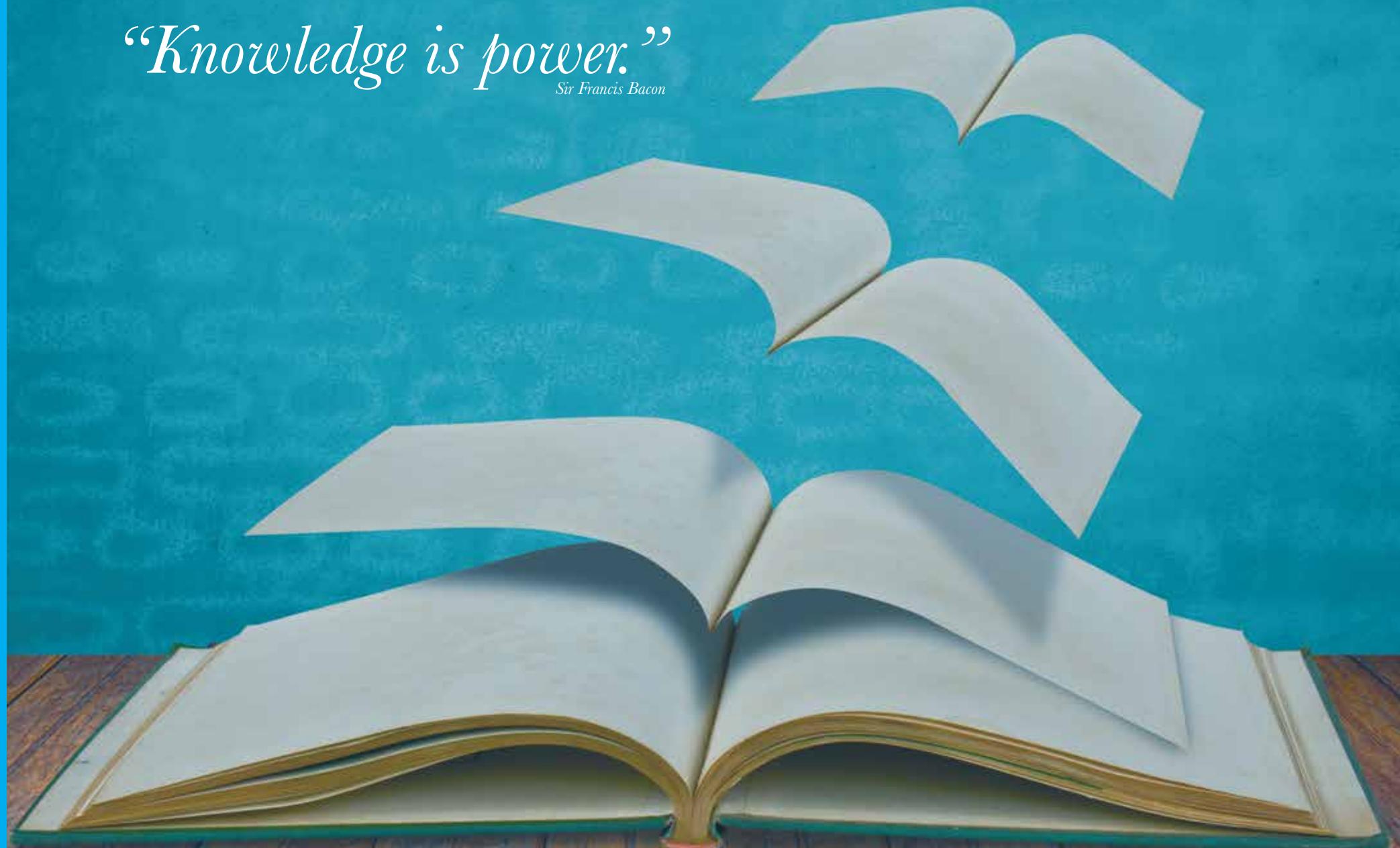
Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3
FIN412	Fintech: Foundations & Applications	3
XXXXxx*	Accounting/Finance Elective-II	3
XXXXxx*	Accounting/Finance Elective- III	3
XXXXxx*	Accounting/Finance Elective- IV	3
MGT408	ELP – 2	3
<b>Credit Hours</b>		<b>18</b>

\*Every elective course has a unique course code.

NB: This curriculum plan conforms to the current guidelines provided by the Higher Education Commission of Pakistan (HEC). However, these guidelines are subject to changes made by the HEC. Please refer our SHU websites for latest information.

*“Knowledge is power.”*

*Sir Francis Bacon*



# BACHELOR OF BUSINESS ADMINISTRATION



## BBA

The program has been developed based on a comprehensive evaluation of the curriculums of BBA programs offered at international universities, and those in Pakistan. The objective of the program is to develop foundational knowledge of the students in all major areas of business as well as to develop their personal competencies to understand, appreciate, think, and act strategically in a fast paced environment.

The program incorporates a number of innovative elements in its curriculums which include: the allowance for electives in the area of liberal sciences, natural sciences, computer sciences, and law. The programs also includes workshops on arts and literature, and workshop on personal development and career planning. Additionally, there is the provision for trading lab to introduce students to the environment and valuation of securities and derivatives; use of language lab for teaching languages and business communications; and the provision of experiential learning courses involving operational enterprise assignments are also a core competencies of the program.

Degree Offered	Entry Requirements	Internship Opportunities
BBA Duration: 4 Years Semesters: 8 Credit Hours: 136	The applicants should: <ul style="list-style-type: none"><li>• Have 45% marks in HSC /A-levels or equivalent qualification</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• FMCGs</li><li>• Banks</li><li>• Multinational companies</li><li>• Advertising agencies</li><li>• Media houses</li></ul> <ul style="list-style-type: none"><li>• Pharmaceutical companies</li><li>• NGOs</li><li>• Public sector enterprises</li><li>Startups</li></ul>

### Tracks Offered

Digital Marketing	Technology Management and Innovation	Human Resource Management	Finance and Banking	Intrapreneurship and Startup Management
Prepare students to learn and apply online digital media marketing tools and techniques	Prepare students for the application of management skills for the proper use of technology	Designed to produce competent human resource professionals equipped with requisite soft skills	Designed to encompass various functional areas of banking and finance	Grooms students to take initiatives within established organizations, or initiate their own business ventures

Program Objectives	Career Prospects
To prepare graduates with knowledge, skills and aptitude to: <ul style="list-style-type: none"><li>• Be acquainted with business dynamics and functionalities, practices and processes</li><li>• Understand the role of economics in the global marketplace</li><li>• Acquire awareness of local and global business issues</li><li>• Develop effective business communication skills</li></ul>	Graduates will find opportunities in: <ul style="list-style-type: none"><li>• Brand management</li><li>• Marketing management</li><li>• Technology management</li><li>• Finance management</li><li>• Operations management</li><li>• Sales management</li><li>• Digital marketing</li><li>• Social media planning</li><li>• Human resource management</li><li>• Project management</li><li>• Entrepreneurship and startup management</li><li>• Market analysis</li><li>• Management consultancy</li></ul>

# Curriculum Plan

## Year 1

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	3
ENG101	Functional English	3
ACC101	Introduction to Accounting	3
MGT101	Principles of Management and Leadership	3
HUM101	Foundation of Human Behavior	3
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3
MTH107	Business Mathematics	3
MKT101	Principles of Marketing	3
ACC106	Financial Accounting and Corporate Reporting	3
IST102	Islam and World Religions	2
PDV103	Personal Development and Career Planning	2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP100	Industry Immersion Project - I (Community Service)	0
<b>Credit Hours</b>		<b>0</b>

## Year 2

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3
MGT201	Organizational Behavior and Leadership	3
FIN206	Introduction to Finance	3
PHI101	Philosophy, Logic, and Critical Thinking	3
MTH104	Introduction to Business Analytics	3
PST101	Pakistan Studies	2
<b>Credit Hours</b>		<b>17</b>

Semester 4		
Course Code	Course Title	Credit Hours
MKT201	Consumer Behavior	3
MGT205	Human Resource Management	3
FIN204	Financial Management	3
MTH203	Calculus with Applications	3
ECO203	Macroeconomics	3
PDV203	Arts and Literature	2
<b>Credit Hours</b>		<b>17</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP200	Industry Immersion Project - II (Corporate)	0
<b>Credit Hours</b>		<b>0</b>

### Year 3

Semester 5		
Course Code	Course Title	Credit Hours
ENG306	Applied Business Communication	3
MTH304	Business Analytics (Modelling & Forecasting)	3
ECO301	Financial Institutions and Markets	3
LAW202	Legal Environment for Business in Pakistan	3
ACC306	Accounting for Management Decisions	3
FIN306	Securities Trading & Applied Economics	2
<b>Credit Hours</b>		<b>17</b>

Semester 6		
Course Code	Course Title	Credit Hours
MGT305	Business Research Methods	3
MGT301	Operations and Project Management	3
XXXXxx*	Business Majors Elective I	3
ECO401	Pakistan Economy	3
XXXXxx*	Natural Science/Social Science/Humanities Elective-I	3
LAN304	Foreign Language	3
<b>Credit Hours</b>		<b>18</b>

### Year 4

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3
MKT401	Marketing Research	3
MGT404	Business Simulations	3
MGT407	ELP - 1	3
XXXXxx*	Business Majors Elective-II	3
XXXXxx*	Business Minors Elective-I	3
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3
HUM401	Business Ethics	3
XXXXxx*	Business Majors Elective-III	3
XXXXxx*	Business Majors Elective-IV	3
XXXXxx*	Business Minors Elective-II	3
MGT408	ELP - 2	3
<b>Credit Hours</b>		<b>18</b>

\*Course code for the electives is subject to the course offered

**NB:** This curriculum plan conforms to the current guidelines provided by the Higher Education Commission of Pakistan (HEC) for the program. However, these are subject to change by the HEC. Please refer to SHU websites for latest information.



# MASTER OF BUSINESS ADMINISTRATION



# MBA

The Salim Habib University MBA program aims to be a transformational master's degree program where the students end up with so much more than a master's degree. Careers often change, industries disrupt and the world changes itself, with the offerings at MBA program at SHU the students will not only keep pace with that pervasive change, in fact will drive it as wholesome individuals who know their unique place in the global community.

The MBA program at SHU has been designed to be highly competitive, versatile, and pragmatic in its orientation and pedagogical approaches. It will cater to the current demands of the private sector, non-profit non-government, as well as government agencies. It has all the scientifically recognized scaffoldings to instill internationally recognized competencies among students of diverse backgrounds to succeed as managers, public sector's administrators, non-profit organization employees, sociopreneuers, and entrepreneurs in assorted careers of their choosing.

The program offers a range of competitive higher level curricula on top of core courses to give strong foundations to its students. Students will have numerous options to configure the combination of their higher-level electives to choose from multiple majors and minors. The value-added feature of the program is its methodological approach to inculcate academic knowledge through industry immersion projects; a feature derived from cutting edge American Universities' curricula for MBA programs. Another distinguishing feature of the MBA program at Salim Habib University is the inclusion of a course on Action Research which comprises of various tools and methodologies for systematically examining industry problems, and the development of their solutions; and the capstone project which involves the application of this learning to a real industry problem, thus providing the students with experiential basis of practical implications and subtleties of a real world scenario.

Degree Offered	Entry Requirements	Internship Opportunities
MBA Duration: 1.5 years Semesters: 3 Credit Hours: 30	<ul style="list-style-type: none"><li>Candidates should have 16 years of business discipline</li><li>50% marks in last acquired degree with minimum of 2.0 CGPA</li><li>Aptitude test and interview</li></ul>	<ul style="list-style-type: none"><li>FMCG</li><li>Banks</li><li>Brokerage Companies</li><li>Asset Management Companies</li><li>Multinationals</li><li>Advertising Agencies</li><li>Market Research Firms</li><li>Media Houses</li><li>Health and Pharma Companies</li><li>NGOs</li><li>Public Sector Enterprises</li><li>Startups</li></ul>
MBA Duration: 2 years Semesters: 4 Credit Hours: 60	<ul style="list-style-type: none"><li>16 years of education in non-business disciplines; e.g. BS, MSc or equivalent with minimum 50% marks in last acquired degree or 2.0 CGPA</li><li>Aptitude test and interview</li></ul>	
BBA Duration: 2 years Semesters: 4 Credit Hours: 75	<ul style="list-style-type: none"><li>14 years of education in non-business disciplines; e.g. BA, BSc, Bcom, with 50% marks in last acquired degree or 2.0 CGPA</li><li>Aptitude test and interview</li></ul>	

Tracks Offered *				
Pharmaceutical Management & Marketing	Supply Chain Management	Management Information Systems	Integrated Human Resource Management	Marketing in Digital Age
This specialization is designed to fulfill the demand of pharmaceutical industry for managerial positions and making students instrumental for catering a competitive edge.	This track will connect the student to the decision making regarding the procurement, logistics, product forecasting, and ERP.	Management information systems track will familiarize students with the use of technology to manage huge volumes of business-relevant information to assist in strategic decision-making and to improve a company's operation.	This track will help students to be instrumental and making them competent human resource professionals who have significant human skills	This specialization covers various functional areas of marketing as per requirement of modern age along with marketing solutions of real time and will prepare students for modern technology management in Marketing.
Finance		Program Objectives		
Finance track will train students with analytical skills and knowledge for use of financial information in business decision making, global financial systems and market, and learn to examine and evaluate source of finance and access to capital markets.		<p>Our students will master the following competencies after the completion of their degrees</p> <ul style="list-style-type: none"> <li>• They will understand the forces that shape a particular economic, legal and regulatory environment, and thus appreciate the impact of one's decisions on society at large.</li> <li>• They will have effective writing and speaking skills.</li> <li>• They will understand team dynamics while exercising their leadership skills.</li> <li>• They will have a commitment to fostering up-to-date, cutting edge knowledge of business disciplines.</li> <li>• They will acquire skills for effective employment of technology in organizational setting.</li> <li>• They will develop personal and professional interest in developing others, and will exhibit through their conduct the belief that every person deserves space and dignity.</li> <li>• They will appreciate social, legal, and ethical responsibilities as an individual, and as an employee of an organization, under the ambit of Corporate Social Responsibility (CSR).</li> <li>• They will develop insight and skillset required for meaningful evidence-based quantitative analysis.</li> </ul>		

\* Tracks will be offered subject to 1/3 majority of student's enrollment in track

### Career Prospects

Our MBA Program is aimed at being more than a resume enhancement or a means to an end. It is aimed as an experience that will shape the entire career of the students, and prepare them to navigate the economic, social, and other complex changes of the future. The scope of opportunities available for MBA graduates goes beyond the needs of the business enterprises to cover governmental agencies, and non-governmental welfare enterprises which are increasingly becoming cognizant of the enhanced efficacy that a business professional brings to an organization. The following are a few of the areas that define scope of the MBA Program.

- Entrepreneurial Management
- Product/Brand Marketing
- Sales Management
- Marketing Management
- Market Analytics/Data Science
- Advertising
- Media Management
- Marketing Research
- Supply Chain Management
- Business Development
- Human Resource Management
- Operations/Production Management
- Regulatory Affairs Management
- Real Estate Management
- Project Management
- Strategy Consulting
- Computer and Information Systems Management
- Technology Management
- Investment Banking
- Risk Management
- Sales, Trading, and Brokerage
- Private Equity
- Insurance, Pension Funds
- Health Care Management
- Pharmaceutical Management
- Governmental Service Management

**Master of Business Administration (MBA)**  
**Semester-wise Study Plan MBA-1.5 Years (30 Credit Hours)**

**Year 1**

<b>Semester 1</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	
FIN501	Strategic Finance and Investment	3	
MTH501	Business Analytics (Modelling & Forecasting)	3	
MKT511	Strategic Marketing	3	
MGT 516	Research Methods for Business Managers	3	
<b>Total Credit Hour</b>		<b>12</b>	

**Year 2**

<b>Semester 3</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite</b>
ELVXXX	Business Elective-III	3	MKT511 or FIN501
XXXX	Thesis II/ Industrial Project II	3	MGT516, MBM701(I)
<b>Total Credit Hour</b>		<b>6</b>	

<b>Semester 2</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite</b>
MGT515	Strategic Management	3	
ELVXXXX	Business Elective-I	3	MKT511 or FIN501
ELVXXXX	Business Elective-II	3	MKT511 or FIN501
MBM701(I)	Thesis I Industrial Project-1	3	MGT516
<b>Total Credit Hour</b>		<b>12</b>	

**Master of Business Administration (MBA)**  
**Semester-wise Study Plan MBA-2 Years (60 Credit Hours)**

**Year 1**

<b>Semester 1</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	
ACC401	Financial Accounting and Corporate Reporting	3	
MTH401	Introduction to Business Analytics	3	
MGT403	Business Management and Leadership	3	
ENG405	Applied Business Communication	3	
MKT402	Marketing (Theory & Application)	3	
<b>Total Credit Hour</b>		<b>15</b>	

<b>Semester 2</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite</b>
MGT303	Organizational Behavior & HR Practices	3	MGT403
LAW301	Legal Environment for Business in Pakistan	3	
FIN301	Finance for Business Managers	3	ACC401
ACC305	Accounting for Management Decisions	3	ACC401
MGT517	Methods for Business Research	3	MTH401
<b>Total Credit Hour</b>		<b>15</b>	

**Year 2**

<b>Semester 3</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite</b>
ECO302	Business Economics	3	
FIN501	Strategic Finance and Investment	3	FIN301
MTH501	Business Analytics (Modeling & Forecasting)	3	MTH401
XXXX	Business Elective – I	3	MGT403 or MKT402 MGT517
MBM701(I)	Thesis I / Industrial Project I	3	
<b>Total Credit Hour</b>		<b>15</b>	

<b>Semester 4</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite</b>
MKT511	Strategic Marketing	3	MKT402
MGT515	Strategic Management	3	MGT403
XXXX	Business Elective – II	3	MGT403 or MKT402
XXXX	Business Elective – III	3	MGT403 or MKT402
XXXX	Thesis II/ Industrial Project II	3	MGT517, MBM701(I)
<b>Total Credit Hour</b>		<b>15</b>	

**Bachelor of Business Administration Two Years Weekend Program Semester-wise Study Plan (75 Credit Hours)**

**Year 1**

<b>Semester 1</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
ACC401	Financial Accounting and Corporate Reporting	3
MTH401	Introduction to Business Analytics	3
MGT403	Business Management and Leadership	3
ENG405	Applied Business Communication	3
MKT402	Marketing (Theory & Application)	3
<b>Credit Hours</b>		<b>15</b>

<b>Semester 2</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-req</b>
MGT303	Organizational Behavior & HR Practices	3	MGT403
LAW301	Legal Environment for Business in Pakistan	3	
FIN301	Finance for Business Managers	3	ACC401
ACC305	Accounting for Management Decisions	3	ACC401
ECO302	Business Economics	3	
<b>Credit Hours</b>		<b>15</b>	

<b>Summer Semester</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
IIP401	Industry Immersion Project (Mandatory Supervised Internship)	3
PST401	Pakistan Studies	3
PDV403	Arts & Literature	3
<b>Credit Hours</b>		<b>9</b>

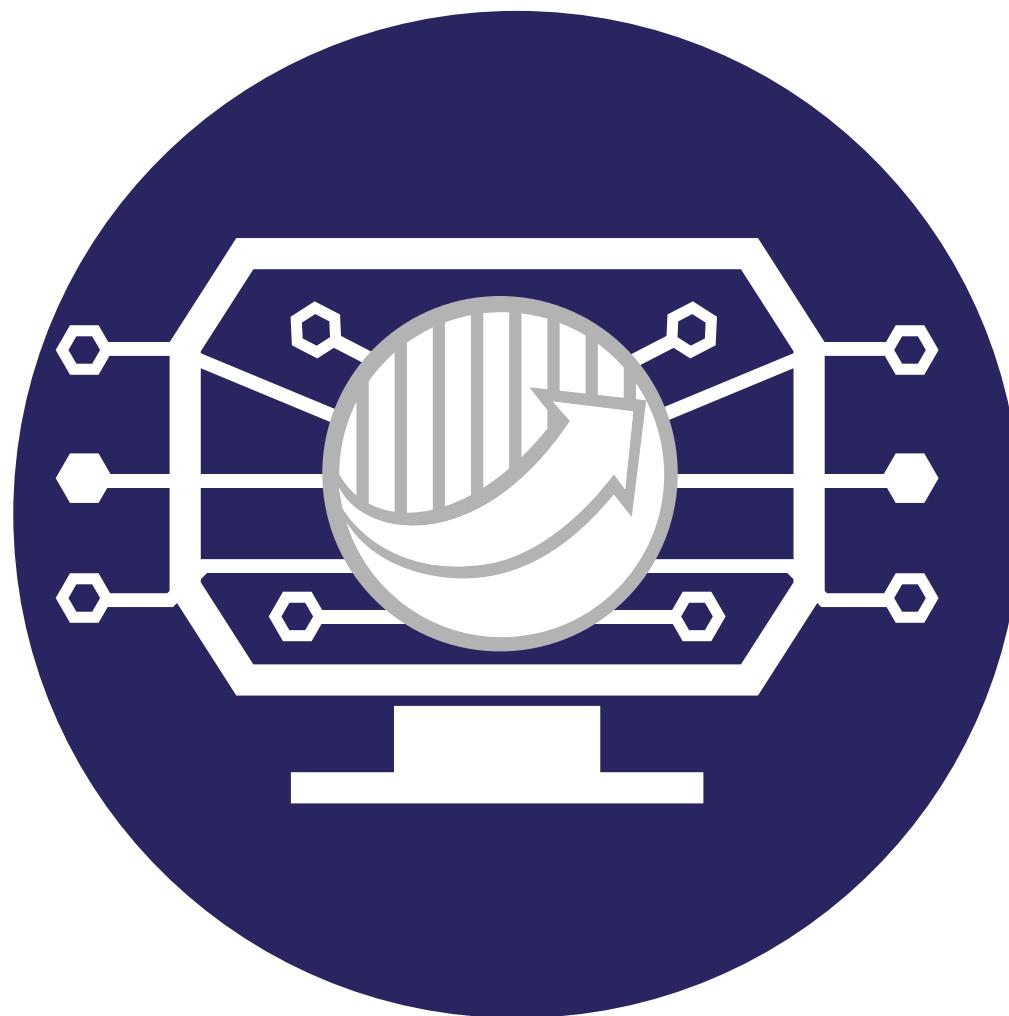
**Year 2**

<b>Semester 3</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-req</b>
MGT503	Application of Quantitative Techniques in Research	3	MTH401
ENG406	Presentation & Communication Skills	3	ENG405
SCM402	Supply Chain Management	3	MGT403
PHI401	Philosophy, Logic & Critical Thinking	3	
MIT410	Introduction to MIS & ERP	3	
<b>Credit Hours</b>		<b>15</b>	

<b>Semester 4</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-req</b>
MGT513	Entrepreneurship	3	FIN301, MGT303, ECO406
ENG407	Communication Skills for Negotiations	3	ENG406
MKT512	Marketing Research	3	MKT402, MGT503
MGT515	Strategic Management	3	MKT402, MGT503, MGT303, LAW301, FIN301, ACC301
MGT514	Business Ethics	3	PHI401, MGT303
<b>Credit Hours</b>		<b>15</b>	

<b>Summer Semester</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-req</b>
IST401	Islam & World Religions	3	ACC305
FIN402	Securities Trading & Applied Economics	3	FIN301
<b>Credit Hours</b>		<b>6</b>	

## BS Fintech



# BS Fintech

The BS (Fintech) program at Salim Habib University is a dynamic four-year degree designed to blend finance and technology. It provides students with a robust foundation in financial principles alongside advanced technological skills. The curriculum covers 140 credit hours, including an internship, and integrates financial management, programming, data analytics, and blockchain technology.

Graduates are prepared for a range of roles such as Financial Technology Specialist, Data Analyst, Blockchain Developer, and Risk Manager. The program emphasizes practical experience and real-world projects, ensuring students can effectively apply their knowledge to solve contemporary financial challenges.

In today's rapidly evolving global economy, the ability to combine financial expertise with technological innovation is crucial. This program equips students to navigate complex financial landscapes, utilize emerging technologies, and drive innovation within the fintech industry. By aligning with current industry standards, the BS (Fintech) program ensures that graduates are well-prepared to meet employer demands and excel in various sectors.

Moreover, the program promotes entrepreneurial thinking, providing students with the tools to start their own fintech ventures or contribute to technological advancements in existing companies. This focus on entrepreneurship and innovation supports economic growth and addresses modern business challenges, preparing graduates not just to seek employment but to create impactful opportunities in the financial technology sector.

Degree Offered	Entry Requirements	Internship Opportunities	
BS FinTech Duration: 4 Years Semesters: 8 Credit Hours: 140	<p>The applicants should:</p> <ul style="list-style-type: none"><li>• Have 45% marks in HSC/A-levels or equivalent qualification</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Financial Institutions</li><li>• Fintech Companies</li><li>• Technology Companies</li><li>• Blockchain Firms</li><li>• Consulting Firms</li><li>• Regulatory and Government Agencies</li><li>• Venture Capital Firms</li></ul>	
Tracks Offered			
Financial Analytics and Data Science	Blockchain and Cryptocurrency	Financial Cybersecurity	Digital Banking and Payment Systems
Focus on quantitative analysis, big data, and predictive modeling.	Emphasis on blockchain technology, digital currencies, and decentralized finance	Concentration on securing financial data and transactions	Study of online banking, mobile payment systems, and fintech solutions.

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	2+1
ENG101	Functional English	2+1
ACC101	Introduction to Accounting	2+1
MGT101	Principles of Management and Leadership	3+0
HUM101	Foundation of Human Behavior	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3+0
MTH107	Business Mathematics	3+0
MKT101	Principles of Marketing	3+0
ACC106	Financial Accounting and Corporate Reporting	2+1
IST102	Islam and world Religions	2+0
CSC109	Introduction to Computer Science	2+1
<b>Credit Hours</b>		<b>17</b>

Year 1 Semester Summer		
Course Code	Course Title	Credit Hours
IIP100	Industry Immersion Project I (Community Service)	0+2
<b>Credit Hours</b>		<b>2</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3+0
MTH104	Introduction to Business Analytics	3+0
FIN206	Introduction to Finance	3+0
PST101	Pakistan Studies	2+0
FTE201	Data Structures and Algorithms	2+1
Xxxxx	Natural Science (Elective)	3+0
<b>Credit Hours</b>		<b>17</b>

Semester 4		
Course Code	Course Title	Credit Hours
FIN204	Financial Management	3+0
ECO203	Macroeconomics	3+0
PDV203	Arts and Literature	0+2
FTE202	Introduction to Fintech	3+0
MTH304	Business Analytics (Modelling & Forecasting)	2+1
MTH210	Calculus with Applications	3+0
<b>Credit Hours</b>		<b>17</b>

Year 2 Semester Summer		
Course Code	Course Title	Credit Hours
IIP200	Industry Immersion Project II (Corporate)	0+3
<b>Credit Hours</b>		<b>3</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
FIN302	Financial Institutions and Markets	3+0
ENG306	Applied Business Communication	3+0
FTE203	Blockchain Technology	2+1
FTE204	Fintech: Finance Industry Transformation and Regulations	3+0
ACC302	Data Analytics for Accounting & Finance	2+1
FTE205	Programming for Fintech I	2+1
<b>Credit Hours</b>		<b>18</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
FTE210	Artificial Intelligence in Finance	2+1
FTE211	Managing Technology and Innovation	3+0
FIN409	Derivative and Risk Management	3+0
XXXXxx*	Elective I	3+0
XXXXxx*	Elective II	3+0
TBA	ELP -1 / FYP-1	0+3
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
FIN312	Fintech Start-ups: Financing and Valuation	2+1
FTE206	Database Management Systems	2+1
FTE207	Programming for Fintech II	2+1
MGT305	Business Research Methods	3+0
FIN313	Investment Management	3+0
FTE209	Web & Mobile Application Development	1+2
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3+0
FTE212	Fintech Entrepreneurship	3+0
XXXXxx*	Elective-III	3+0
XXXXxx*	Elective- IV	3+0
MGT408	ELP – 2/ FYP-2	0+3
<b>Credit Hours</b>		<b>15</b>

## BS Business Analytics



# BS Business Analytics

Welcome to the Bachelor of Science in Business Analytics program. This innovative four-year degree is designed to equip students with the skills and knowledge needed to succeed in today's data-driven business world – and beyond.

Business analytics is the process of using data and analytical techniques to drive business decision-making. It involves using tools and methods from statistics, computer science, and business to analyze complex data sets and gain insights that can inform business strategy.

Our BS Business Analytics program provides students the opportunity for hands-on learning experiences while emphasizing the need for good communication and negotiation skills in a commercial context, as well as the ethical and social aspects associated with data analysis and decision-making.

Through a combination of coursework, case studies, hands-on projects, and freelance training, students will gain the skills and knowledge needed to succeed in a variety of roles - from business analyst to data scientist to freelance consultant. Our expert faculty will guide students through a curriculum that is both rigorous and relevant, ensuring that graduates are prepared to make an impact in the business world and beyond.

Join us in the BS Business Analytics program and discover the power of data-driven decision-making.

Degree Offered	Entry Requirements	Internship Opportunities
BS Business Analytics Duration: 4 Years Semesters: 8 Credit Hours: 136	The applicant should: <ul style="list-style-type: none"><li>Have 45% marks in HSC or equivalent marks in A-levels, or other qualifications</li><li>Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>Insurance Companies</li><li>Food and Beverage Companies</li><li>Technology Firms</li><li>Marketing Firms</li><li>Financial Firms</li><li>Trading Firms</li></ul>
Tracks Offered		
Marketing Analytics	HR Analytics	Financial Analytics
Develop understanding and skills to perform market research using advance analytics tools for consumers and competitors.	To develop data-driven HR skills to elevate decision-making for recruitment, training, development, compensation, and performance.	To create understanding of advance synthesis of financial data using advance data analytics tools, simulations and modelling.

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	2+1
ENG101	Functional English	2+1
ACC101	Introduction to Accounting	2+1
MGT101	Principles of Management and Leadership	3+0
HUM101	Foundation of Human Behavior	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3+0
MTH107	Business Mathematics	3+0
MKT101	Principles of Marketing	3+0
ACC106	Financial Accounting and Corporate Reporting	2+1
IST102	Islam and World Religions	2+0
PDV103	Personal Development and Career Planning	0+2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP100	Industry Immersion Project - I (Community Service)	0+0
<b>Credit Hours</b>		<b>0</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3+0
FIN206	Introduction to Finance	3+0
PHI101	Philosophy, Logic, and Critical Thinking	3+0
MTH104	Introduction to Business Analytics	2+1
BAN201	Computer Programming - I	2+1
MTH203	Calculus with Applications	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 4		
Course Code	Course Title	Credit Hours
PST101	Pakistan Studies	2+0
BAN202	Computer Programming - II	2+1
FIN204	Financial Management	3+0
BAN203	Data Structures	2+1
ECO203	Macroeconomics	3+0
PDV203	Arts and Literature	0+2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIPXXX	Industry Immersion Project - II (Corporate)	0+3
<b>Credit Hours</b>		<b>3</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
ENG306	Applied Business Communication	3+0
MTH304	Business Analytics – Modeling and Forecasting	3+0
ECO301	Financial Institutions and Markets	3+0
LAW202	Legal Environment for Business in Pakistan	3+0
BAN301	Basic Econometrics	3+0
XXXXxx*	Natural Science Elective	2+1
<b>Credit Hours</b>		<b>17</b>

Semester 6		
Course Code	Course Title	Credit Hours
MGT305	Business Research Methods	3+0
XXXXxx*	Majors Elective-I	3+0
BAN302	Database Systems	3+0
BAN303	Machine Learning for Business Analytics	3+0
BAN304	Business Data and Text Mining	3+0
BAN305	Business Intelligence	3+0
<b>Credit Hours</b>		<b>18</b>

Summer Semester		
Course Code	Course Title	Credit Hours
-	-	-
<b>Credit Hours</b>		<b>-</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3+0
MGT404	Business Simulations	3+0
MGT407	ELP – I/Capstone - I	3+0
BAN401	Decision Science for Business	3+0
XXXXxx*	Majors Elective-II	3+0
XXXXxx*	Minors Elective-I	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3+0
BAN402	Predictive Analytics	3+0
XXXXxx*	Majors Elective-III	3+0
XXXXxx*	Majors Elective-IV	3+0
XXXXxx*	Minors Elective-II	3+0
MGT408	ELP - II/ Capstone - II	3+0
<b>Credit Hours</b>		<b>18</b>

# BS Supply Chain Management



# BS Supply Chain Management

The supply chain is a complex system that involves business strategists predicting consumer demand and making goods accessible to producers, manufacturers, and consumers. Supply chain management coordinates businesses and suppliers in transferring goods to the right locations, with technology driving procedures and tactics to provide a competitive edge.

Our BS Supply Chain Management program equips students with the knowledge and skills to efficiently manage the complex systems of people, resources, and information involved in delivering products and services. This program focuses on optimizing delivery processes while minimizing costs, preparing graduates to excel in roles within large companies, smaller organizations, and start-ups.

Students will gain expertise in areas such as logistics, warehousing, inventory management, risk management, project management, procurement, transportation, and distribution. The curriculum includes foundational business courses in accounting, finance, marketing, MIS, and management, with a specialized focus on supply chain management. Through experiential learning, students will develop interpersonal communication, teamwork, and diversity management skills.

The program also offers elective courses in cross-cultural management, planning for customer demands and inventory, supply chain operations, local and global procurement, contracts and negotiation, transportation, logistics and leveraging industry 4.0 technologies in supply chain. A required internship and a capstone project provide practical, field-based experience, ensuring graduates are well-prepared to enter the workforce in various supply chain positions across industries such as manufacturing, distribution, transportation, and retailing.

Degree Offered	Entry Requirements	Internship Opportunities
BS Supply Chain Management Duration: 4 Years Semesters: 8 Credit Hours: 142	<p>The applicant should:</p> <ul style="list-style-type: none"><li>• Have 45% marks in HSC or equivalent marks in A-levels, or other qualifications</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Manufacturing</li><li>• FMCG</li><li>• Retail</li><li>• Oil, gas and energy</li><li>• Healthcare</li><li>• IT</li><li>• Parcel services</li><li>• E-commerce</li><li>• Logistics and transportation</li><li>• Import and export</li><li>• Consultation</li><li>• Government institutions</li><li>• Humanitarian projects</li><li>• Others</li></ul>

Tracks Offered			
Demand and inventory planning	Operations management	Procurement planning and resource management	Delivery and logistics
To develop knowledge and skills needed in predicting customer demand, fulfilment, managing supply base while maintaining service, financial, customer goals.	To provide diverse understanding of end-to-end supply chain and plant-level operations management.	Provide skills in procurement from strategic to operational level, supplier partnerships, contracts, negotiations and optimum allocation of money, human resources and technology.	Develop competencies to understand complex delivery and logistics network, service levels, innovations in first-mile and last mile delivery, carbon footprint and optimize the balance between responsiveness and efficiency.

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	2+1
ENG101	Functional English	2+1
ACC101	Introduction to Accounting	2+1
MGT101	Principles of Management and Leadership	3+0
HUM101	Foundation of Human Behavior	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3+0
MTH107	Business Mathematics	3+0
MKT101	Principles of Marketing	3+0
ACC106	Financial Accounting and Corporate Reporting	2+1
IST102	Islam and World Religions	2+0
PDV103	Personal Development and Career Planning	0+2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP1XX	Industry Immersion Project - I (Community Service)	0+2
<b>Credit Hours</b>		<b>2</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3+0
FIN206	Introduction to Finance	3+0
PHI101	Philosophy, Logic, and Critical Thinking	3+0
MTH104	Introduction to Business Analytics	3+0
PST101	Pakistan Studies	2+0
SCM201	Introduction to Supply Chain Management	3+0
<b>Credit Hours</b>		<b>17</b>

Semester 4		
Course Code	Course Title	Credit Hours
SCM202	Introduction to Procurement Management	3+0
SCM203	Introduction to Transportation and Warehouse Management	3+0
FIN204	Financial Management	3+0
MTH210	Calculus with Applications	3+0
ECO203	Macroeconomics	3+0
PDV203	Arts and Literature	0+2
<b>Credit Hours</b>		<b>16</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIPXXX	Industry Immersion Project - II (Corporate)	0+3
<b>Credit Hours</b>		<b>3</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
ENG306	Applied Business Communication	3+0
MTH304	Business Analytics (Modeling and Forecasting)	3+0
FIN302	Financial Institutions and Markets	3+0
LAW202	Legal Environment for Business in Pakistan	3+0
SCM301	Introduction to SCM Sustainability	3+0
XXXXxx*	Natural Science Elective	2+1
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
MGT305	Business Research Methods	3+0
XXXXxx*	Majors Elective-I	3+0
SCM302	Supply Chain Analytics and Information Systems	3+0
SCM303	Innovations in SC Ecommerce	3+0
MGT301	Operations and Project Management	3+0
SCM304	Import and Export Management	3+0
<b>Credit Hours</b>		<b>18</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
MGT401	Entrepreneurship	3+0
MGT404	Business Simulations	3+0
MGT407	ELP-I/Capstone-I	3+0
SCM409	Supply Network Planning and Design	3+0
XXXXxx*	Majors Elective-II	3+0
XXXXxx*	Minors Elective-I	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3+0
SCM410	Quality Management and Lean Thinking	3+0
XXXXxx*	Majors Elective-III	3+0
XXXXxx*	Majors Elective-IV	3+0
XXXXxx*	Minors Elective-II	3+0
MGT408	ELP-2/Capstone-II	3+0
<b>Credit Hours</b>		<b>18</b>

# BS Actuarial Science & Risk Management



# BS Actuarial Science & Risk Management

## Introduction

The BS in Actuarial Science & Risk Management is tailored for those interested in the intersection of mathematics, statistics, and finance. This program focuses on assessing and managing risk across various sectors. Students learn to apply mathematical models to analyze financial uncertainty and develop strategies for risk mitigation. Graduates are ready for successful careers in insurance, consulting, and risk management.

## Program Objectives

1. To equip students with the mathematical, statistical, and analytical skills necessary for assessing and managing risk.
2. To provide an understanding of financial theories and their application to insurance and risk management.
3. To prepare students for professional actuarial examinations and careers in insurance, consulting, and financial risk management.
4. To develop critical thinking and problem-solving abilities specific to financial uncertainty and risk analysis.

Degree Offered	Entry Requirements	Career Prospects	Internship Opportunities
<p><b>BS ACTUARIAL SCIENCE &amp; RISK MANAGEMENT</b></p> <ul style="list-style-type: none"><li>• Duration: 4 Years</li><li>• Semesters: 8</li><li>• Credit Hours: 137</li></ul>	<p>The applicant should:</p> <ul style="list-style-type: none"><li>• Have 45% marks in HSC or equivalent marks in A Levels, or other qualifications</li><li>• Qualify the Aptitude Test and Interview</li></ul>	<ul style="list-style-type: none"><li>• Actuarial Analyst</li><li>• Financial Analyst</li><li>• Pension Actuary</li><li>• Investment Analyst</li><li>• Risk Manager</li><li>• Data Scientist</li><li>• Compliance Analyst</li></ul>	<ul style="list-style-type: none"><li>• Insurance Companies</li><li>• Consulting Firms</li><li>• Asset Management Companies</li><li>• Brokerage Firms</li><li>• Healthcare Organizations</li><li>• Banks and Financial Institutions</li><li>• Government Agencies</li></ul>

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
CSC106	Introduction to Computer Applications	2+1
ENG101	Functional English	2+1
ACC101	Introduction to Accounting	2+1
MGT101	Principles of Management and Leadership	3+0
MTH107	Business Mathematics	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 2		
Course Code	Course Title	Credit Hours
ECO102	Microeconomics	3+0
MTH108	Calculus with Application	3+0
MKT101	Principles of Marketing	3+0
ACC106	Financial Accounting and Corporate Reporting	2+1
IST102	Islam and World Religions	2+0
HUM101	Foundations of Human Behavior	3+0
<b>Credit Hours</b>		<b>17</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP100	Industry Immersion Project I (Community Service)	0+2
<b>Credit Hours</b>		<b>2</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
ENG105	Presentation and Communication Skills	3+0
ACT201	Probability and Statistics – I	3+0
FIN206	Introduction to Finance	3+0
PST101	Pakistan Studies	2+0
ACT203	Introduction to Actuarial Science	3+0
XXXx	Natural Science (Elective)	3+0
<b>Credit Hours</b>		<b>17</b>

Semester 4		
Course Code	Course Title	Credit Hours
FIN204	Financial Management	3+0
ECO203	Macroeconomics	3+0
PDV203	Arts & Literature	2+0
ACT204	Probability and Statistics – II	2+1
RM201	Insurance Products and Practices	3+0
RM202	Principles of Risk Management	3+0
<b>Credit Hours</b>		<b>17</b>

Summer Semester		
Course Code	Course Title	Credit Hours
IIP200	Industry Immersion Project - II (Corporate)	0+3
<b>Credit Hours</b>		<b>3</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
FIN302	Financial Institutions and Markets	3+0
ENG306	Applied Business Communication	3+0
FIN409	Derivatives and Risk Management	3+0
RM301	Takaful and Islamic Risk Management	3+0
FTE202	Introduction to Fintech	3+0
<b>Credit Hours</b>		<b>15</b>

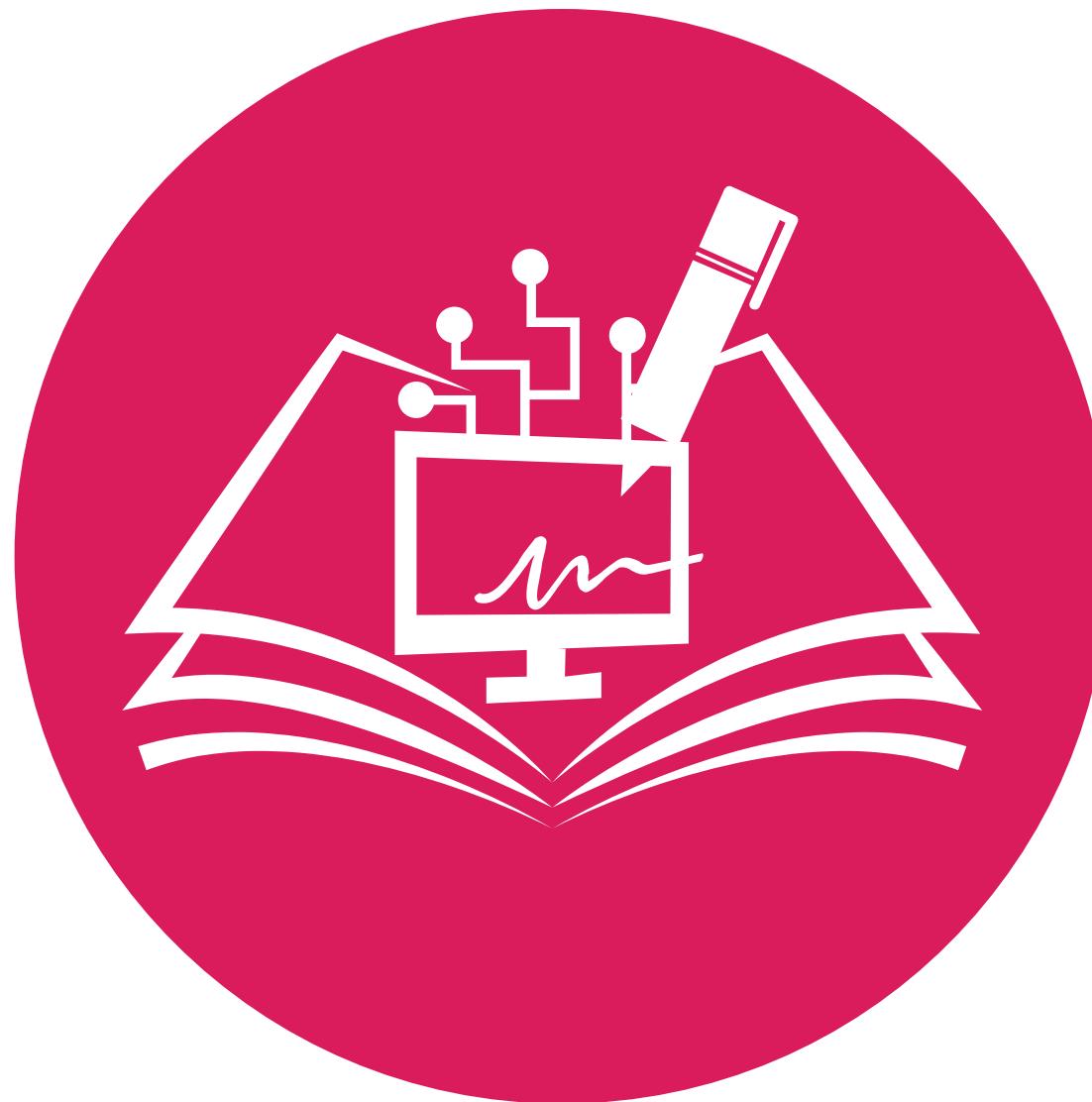
### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
FIN412	Financial Mathematics	3+0
ACT402	Actuarial Models	2+1
RM401	Financial Risk Management -II	3+0
RM402	Programming for Risk Management	2+1
TBA	ELP /FYP - I	0+3
Xxxx	Elective I	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
MGT305	Business Research Methods	3+0
XXXXxx*	Majors Elective-I	3+0
SCM302	Supply Chain Analytics and Information Systems	3+0
SCM303	Innovations in SC Ecommerce	3+0
MGT301	Operations and Project Management	3+0
SCM304	Import and Export Management	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
MGT406	Business Strategy	3+0
FIN413	Institutional Wealth Management	3+0
TBA	ELP / FYP – II	0+3
Xxxx	Elective II	3+0
Xxxx	Elective III	3+0
<b>Credit Hours</b>		<b>15</b>

## BS Content Development & Virality



# BS Content Development & Virality

## Program Introduction

Our BS Content Development & Virality program is designed to equip students with the essential skills and knowledge to excel in the fast-paced world of digital content creation and dissemination. This interdisciplinary program combines principles of marketing, communication, data analytics, and creative media production to prepare graduates for careers in social media management, digital marketing, content strategy, and viral marketing.

Entry Requirements	Career Prospects
<p>The applicants should have:</p> <ul style="list-style-type: none"><li>• Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)</li><li>• Clear the Aptitude Test and Interview at Salim Habib University</li></ul>	<p>Digital Content Creator A digital content creator produces engaging multimedia content for online platforms, including text, images, videos, and interactive elements.</p> <p>Social Media Manager A social media manager develops and executes strategies to enhance brand presence, engage audiences, and drive growth across social media platforms.</p> <p>Content Strategist A content strategist plans, creates, and manages content to align with business goals and audience needs, ensuring effective communication and engagement.</p> <p>SEO Specialist An SEO specialist optimizes website content and structure to improve search engine rankings and drive organic traffic, enhancing online visibility and user engagement.</p> <p>Digital Marketing Specialist A digital marketing specialist designs and implements online marketing strategies, including paid ads, email campaigns, and social media, to drive brand growth and customer acquisition.</p> <p>Brand Manager A brand manager develops and oversees strategies to build and maintain a brand's identity, ensuring consistency in messaging and maximizing market presence to drive customer loyalty and business growth.</p>
<p><b>Program Objectives</b></p> <p>The BS Content Development &amp; Virality program intends to equip students with the skills and knowledge to:</p> <p>Develop high-quality, engaging content for various digital platforms, including social media, blogs, video channels, and websites.</p> <p>Understand the mechanisms and strategies behind viral content, including trends analysis, audience engagement, and emotional triggers.</p> <p>Gain proficiency in digital marketing tools and techniques, such as SEO, SEM, email marketing, and influencer partnerships.</p> <p>Learn to use data analytics to measure content performance, audience reach, and engagement, and make data-driven decisions to optimize content strategies.</p> <p>Enhance writing, storytelling, and multimedia production skills to craft compelling narratives that resonate with target audiences.</p> <p>Understand the ethical and legal aspects of digital content creation, including copyright laws, privacy issues, and responsible content dissemination.</p>	

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
-	Vlogging Techniques & Strategies	3+0
-	Everyday English	2+1
-	Compelling Copywriting	2+1
-	Digital Marketing Essentials for Content Developers	3+0
-	Scientific Content Creation & Viral Marketing	3+0
<b>Credit Hours</b>		<b>15</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
-	Industry Immersion Project - I (Community Service)	0+0
<b>Credit Hours</b>		<b>18</b>

Semester 2		
Course Code	Course Title	Credit Hours
-	Academic English for Content Creators	3+0
-	Virtual Team Management	3+0
-	Blogging and Online Writing	3+0
-	Islamic Concepts in Real Life	2+0
-	Content Analytics & Performance Measurement	3+0
-	Documentary Production and Analysis	0+2
<b>Credit Hours</b>		<b>16</b>

Semester 4		
Course Code	Course Title	Credit Hours
-	Communicate with Impact: Presentation Essentials	3+0
-	Multimedia Content Genres	3+0
-	Biographical Content Creation	3+0
-	Literary Content Development	3+0
-	Voice-Over and Recitation Techniques	3+0
-	Discovering Pakistan: History, Culture, and Society	2+0
<b>Credit Hours</b>		<b>17</b>

## Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
-	Translation and Grammar Checking Tools	3+0
-	Reference and Fact-Checking Methods	3+0
-	Copyright Laws and Content Protection	3+0
-	Advanced Animation Techniques	3+0
-	Educational Simulations and Games	3+0
-	Educational Content Development	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 6		
Course Code	Course Title	Credit Hours
-	Research Content Creation	3+0
-	Supporting and Conducting Original Research	3+0
-	Elective I	3+0
-	Genre-Specific Promotion Strategies	3+0
-	Podcast Production and Distribution	3+0
-	Expert Channel Development	3+0
<b>Credit Hours</b>		<b>18</b>

## Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
-	Conducting and Editing Interviews	3+0
-	Content Mediation and Collection Techniques	3+0
-	Summarizing and Presenting Content	3+0
-	Collection Presentation Techniques	3+0
-	Elective-II	3+0
-	Craft Channel Content Creation	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
-	Restoration Channel Content Creation	3+0
-	Engineering and Technology Channel Content	3+0
-	Social Media Identity and Promotion	3+0
-	Elective-III	3+0
-	Elective-IV	3+0
-	Project	3+0
<b>Credit Hours</b>		<b>18</b>

## BS Psychology



# BS Psychology

## Program Introduction

BS Psychology is an interdisciplinary undergraduate program designed to provide students with a comprehensive understanding of psychological principles and their applications in promoting mental health and well-being. This 4-year program integrates traditional psychology coursework with specialized training in well-being, health psychology, and positive psychology.

Entry Requirements	Career Prospects
<p>The applicants should have:</p> <ul style="list-style-type: none"><li>• Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)</li><li>• Clear the Aptitude Test and Interview at Salim Habib University</li></ul>	<p><b>Psychologist</b> A psychologist is a trained professional who studies human behaviour, emotions, and mental processes.</p> <p><b>Educational Psychologist</b> Educational psychologists apply theories of human development to understand individual learning and inform the instructional process.</p> <p><b>Human Resources Specialist</b> Human resources specialists recruit, screen, and interview job applicants and place newly hired workers in jobs.</p> <p><b>Healthcare Psychologist</b> A healthcare psychologist helps individuals and groups in areas related to personal wellbeing, interpersonal relationships, work, recreation, health, and crisis management.</p> <p><b>Community Services Counselor</b> A community counselor offers mental health services to the public, and provides therapy and support for individuals in the general public.</p> <p><b>Research Psychologist</b> Research psychologists use scientific methods to examine questions and test hypotheses with the aim of understanding human thought and behavior.</p>
<p><b>Program Objectives</b></p> <p>Equip students with a solid grounding in core areas of psychology, including developmental, cognitive, social, and clinical psychology.</p> <p>Emphasize the study and application of strategies to enhance mental health and well-being at individual and community levels.</p> <p>Develop strong research competencies, enabling students to design, conduct, and analyze psychological studies.</p> <p>Provide opportunities for practical experience through internships, fieldwork, and community engagement projects.</p> <p>Foster critical thinking, ethical reasoning, and effective communication skills.</p>	

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
-	English-I	3+0
-	Pakistan Studies	2+0
-	Basic Mathematics	3+0
-	Behavioural Statistics – I	3+0
-	Sociology – I / Anthropology - I	3+0
-	Introduction to Psychology	3+1
<b>Credit Hours</b>		<b>18</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
-	Introduction to Computing	3+0
-	Behavioural Statistics – II	3+0
-	Sociology – II / Anthropology - II	3+0
-	Experimental Psychology	3+1
-	Health Psychology	3+0
<b>Credit Hours</b>		<b>16</b>

Semester 2		
Course Code	Course Title	Credit Hours
-	English-II	3+0
-	Islamic Studies / Ethics	2+0
-	Calculus	3+0
-	Behavioural Economics	3+0
-	Philosophy of Psychology	3+0
<b>Credit Hours</b>		<b>14</b>

Semester 4		
Course Code	Course Title	Credit Hours
-	English-III	3+0
-	Behavioural Economics – II	3+0
-	Educational Psychology	3+0
-	Developmental Psychology	3+0
-	Abnormal Psychology	3+0
<b>Credit Hours</b>		<b>15</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
-	Mental Health and Psycho-pathology – I	3+0
-	Personality Theory I	3+0
-	Applied Social Psychology	3+0
-	Research Methods - I	3+0
-	Environmental Psychology	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 6		
Course Code	Course Title	Credit Hours
-	Mental Health and Psycho-pathology – II	3+0
-	Personality Theory II	3+0
-	Positive Psychology	3+0
-	Research Methods – II	3+0
-	Capstone Project	3+0
<b>Credit Hours</b>		<b>18</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
-	Psychological Testing I	3+0
-	Behavioural Neuroscience and Psychopharmacology	3+0
-	Elective-I: Industrial / Organizational Psychology	3+0
-	Elective-II: Consumer Psychology	3+0
-	Internship	2+0
<b>Credit Hours</b>		<b>14</b>

Semester 8		
Course Code	Course Title	Credit Hours
-	Psychological Testing II	3+0
-	Assessment and Therapeutic Methods	3+0
-	Elective-III: Cross Cultural Psychology	3+0
-	Elective-IV: Clinical Psychology	3+0
-	Psychological Assessment Lab	0+3
<b>Credit Hours</b>		<b>15</b>

## BS Digital Arts & Creative Design



# BS Digital Arts & Creative Design

## Program Introduction

In the Digital Arts and Creative Design program, you will explore a variety of artistic as well as academic disciplines through digital mediums. This comprehensive course covers key areas including graphic design, digital illustration, animation, interactive media, and user experience (UX) design. Whether you are aiming to become a graphic designer, a digital illustrator, or a multimedia artist, this program offers a strong foundation in both technical skills and creative principles.

Begin your journey into the world of Digital Arts and Creative Design, and unlock your potential to shape the future of visual communication and contribute uniquely to the exciting field.

Entry Requirements	Career Prospects
<p>The applicants should have:</p> <ul style="list-style-type: none"><li>• Minimum 50% marks in HSSC or equivalent qualifications recognized by the Inter Board Committee of Chairmen (IBCC)</li><li>• Clear the Aptitude Test and Interview at Salim Habib University</li></ul>	<p><b>Graphic Designer</b> A Graphic Designer creates visual content using typography, imagery, and layout to communicate messages effectively across various media.</p> <p><b>UX/UI Designer</b> A UX/UI Designer enhances user experience and interface design to ensure intuitive, visually appealing, and functional digital products.</p> <p><b>Web Designer</b> A Web Designer crafts the visual layout and aesthetics of websites, focusing on usability, design, and user experience.</p> <p><b>Animator</b> An Animator creates moving images and visual effects through various techniques to bring stories and characters to life.</p> <p><b>Artist</b> Film Artist and Tv Artist</p> <p><b>Media Professional</b> A Media Professional manages and creates content across various platforms, including television, radio, print, and digital media, to inform, entertain, or influence audiences.</p> <p><b>Art Director</b> An Art Director oversees the visual style and artistic direction of projects, ensuring cohesive design and aesthetics across various media and platforms.</p> <p><b>Creative Director</b> A Creative Director leads and inspires the creative team to develop and execute innovative concepts and visual strategies for projects and campaigns.</p> <p><b>Digital Illustrator</b> A Digital Illustrator creates detailed and imaginative artwork using digital tools and software to convey concepts and stories visually.</p>
<p><b>Program Objectives</b></p> <p>The BS Digital Arts &amp; Creative Design program intends to:</p> <p>Equip students with hands-on skills in industry-standard digital tools and software. Instill a deep understanding of fundamental design principles such as color theory, typography, layout, and visual hierarchy to create aesthetically pleasing and effective designs.</p> <p>Encourage innovative and critical thinking by engaging students in diverse artistic projects and real-world scenarios, promoting original and imaginative solutions. Guide students in developing a strong and diverse portfolio showcasing their skills and creativity, preparing them for competitive job markets and career opportunities. Provide insights into current trends, technologies, and practices in the digital arts and creative design industry, ensuring students are aware of and can adapt to industry changes.</p> <p>Equip students with the practical experience and professional skills necessary to pursue a variety of roles in the digital arts and design fields, including graphic design, animation, UX/UI design, and multimedia production.</p>	

# Curriculum Plan

## Year 1 (FRESHMEN)

Semester 1		
Course Code	Course Title	Credit Hours
-	History of Design	3+0
-	English-1	3+0
-	Still Life Drawing	3+0
-	Digital Drawing & Illustration-1	3+0
-	Color Theory	3+0
-	Basic Design	3+0
<b>Credit Hours</b>		<b>18</b>

## Year 2 (SOPHOMORE)

Semester 3		
Course Code	Course Title	Credit Hours
-	Media Advertising	3+0
-	Story Boarding	3+0
-	Introduction to Animation	3+0
-	Digital Image Manipulation	3+0
-	Oral Communication (Speech)	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 2		
Course Code	Course Title	Credit Hours
-	Figure Drawing	3+0
-	Media Psychology	3+0
-	Digital Drawing & Illustration-2	3+0
-	Media Marketing	3+0
-	English-2	3+0
-	Packaging Graphics	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 4		
Course Code	Course Title	Credit Hours
-	Music Production	3+0
-	Advertising Designs	3+0
-	Printing Procedure	3+0
-	Media Branding	3+0
-	Digital Photography	3+0
-	2D Animation	3+0
<b>Credit Hours</b>		<b>18</b>

### Year 3 (JUNIOR)

Semester 5		
Course Code	Course Title	Credit Hours
-	3D Modeling & Animation Techniques	3+0
-	Web Site Development	3+0
-	Non-Linear Editing	3+0
-	Research & Media Planning	3+0
-	Advance Media Concepts-1	3+0
-	Copy Writing	3+0
<b>Credit Hours</b>		<b>18</b>

### Year 4 (SENIOR)

Semester 7		
Course Code	Course Title	Credit Hours
-	Video for Visual Effects	3+0
-	Advance Animation Techniques	3+0
-	Elective-1	3+0
-	Elective-2	3+0
-	Project-1	3+0
<b>Credit Hours</b>		<b>15</b>

Semester 6		
Course Code	Course Title	Credit Hours
-	Advance 3D Modeling	3+0
-	Advance Media Concepts-2	3+0
-	Digital Movie Making	3+0
-	Media Ethics	3+0
-	Gamification	3+0
-	Pakistan & Islamic Studies	3+0
<b>Credit Hours</b>		<b>18</b>

Semester 8		
Course Code	Course Title	Credit Hours
-	Internship	3+0
-	Elective-3	3+0
-	Elective-4	3+0
-	Project-2	3+0
<b>Credit Hours</b>		<b>15</b>