

## Discover Jourself





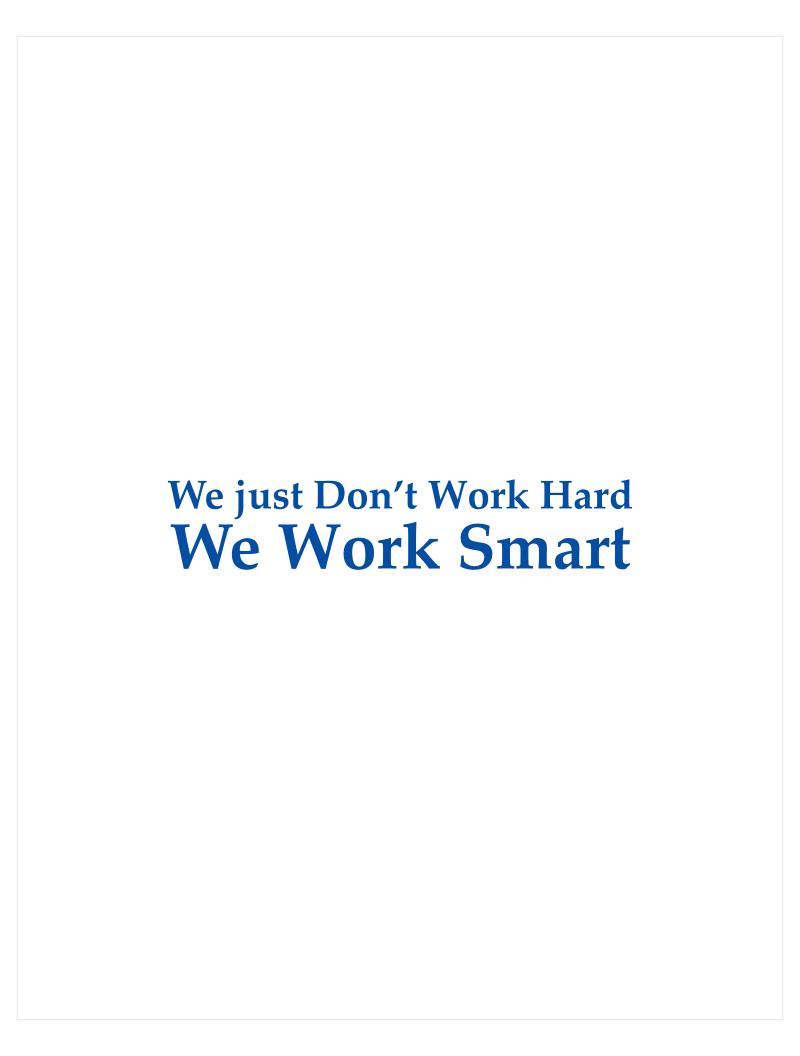








# **PROSPECTUS** 2024-25



# SHAHEED ZULFIKAR ALI BHUTTO INSTITUTE OF SCIENCE & TECHNOLOGY

## THE VISION

SZABIST aims to be a globally recognized institute for excellence in education, research, development, and distinction in service.

## THE MISSION

SZABIST is committed to produce highly qualified professionals to:

- Meet national and global contemporary needs;
- Conduct cutting edge research and development;
- Provide hi-tech scientific and technological expertise;
- Meet current and future socio-economic challenges;
- Meet global citizenship responsibility.

## **CONTENTS**

INTRODUCTION	01
Programs & Curricula Admission Requirements Admission Test Alternates Transfer Policy	7
Financial Assistance	
LIFE AT SZABIST	08
Video Conferencing Conferences/Forums/Seminars/Guest Lectures Professional Development Courses Classrooms/Labs/Libraries Research Committee (RC) Board of Advanced Studies and Research (BASR) Academic Council Office of Research Innovation and Commercialization (ORIC) Data Center SZABIST Student Council (SSC) & Student Societies Executive Development Center (EDC) Jobs and Internships ZABSolutions National and International Linkages and Collaborations	
FACULTY OF MANAGEMENT SCIENCES	18
Bachelor of Business Administration (BBA) BS Accounting & Finance (BS A&F) Master of Business Administration (MBA) MS Management Science (MS MS)	1
FACULTY OF COMPUTING AND ENGINEERING SCIENCES	28
BS Computer Science (BS CS) BS Software Engineering (BS SE) BS Artificial Intelligence (BS AI) MS Computer Science (MS CS)	
FACULTY OF EDUCATION & SOCIAL SCIENCES	41
BS Social Sciences (BS SS)	
ACADEMIC CALENDAR 2024-25	45
Fall 2024 Spring 2025	7
CAMPUS WISE PROGRAMS OFFERING	47
Programs Offering at Different Campuses of SZABIST	

## SHAHEED ZULFIKAR ALI BHUTTO



### January 5, 1928 - April 4, 1979 Former Prime Minister of Pakistan

"We will give science and technology requirements the highest priority and our attention. To implement any program of scientific and technological development, the country needs to train scientific manpower. In this, the schools, colleges and universities have to play their role. I desire that vast number of people of Pakistan should acquire technological skills. I want first-class science in Pakistan because nothing less is acceptable. And I wish Pakistan to be increasingly self-reliant in all aspects of technology."

Address at the Inauguration Ceremony of Karachi Nuclear Power Plant, Karachi, Pakistan, November 28, 1972.

## SHAHEED MOHTARMA BENAZIR BHUTTO



June 21, 1953 - December 27, 2007 Former Prime Minister of Pakistan, Founding Chancellor SZABIST

"Technology and Communication have changed our world and are influencing a global culture. The ability to google information from anywhere in the world puts technology into the hands of even the most isolated rural communities in the developing world. The more people learn, the more they want to learn. The more they interact, the less likely they will be to fear the unknown. Just as democracy and educational exchange promote peace, the free flow of modern technology and communication promote peace."

Reconciliation: Islam, Democracy and the West, 2008.

## **CHANCELLOR'S MESSAGE**



I welcome you to join the Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST), one of the most prestigious higher education institutions of Pakistan.

At SZABIST, we believe that innovative thoughts and high ideals teach the values of hard work, creativity and continuous learning. We prepare our students for professional careers, therefore, we offer a wide variety of programs including Management, Computer, Social and Media Sciences, Mechatronic Engineering, Biosciences, Education, Public Health and Law. The curriculum of each traditional and emerging program is approved by the Higher Education Commission (HEC), Pakistan and is taught by highly qualified and competent faculty members.

To achieve the mission of our founding Chancellor Shaheed Mohtarma Benazir Bhutto of providing opportunity for high quality tertiary education and research to the youth of Pakistan, SZABIST has a presence in Karachi, Islamabad, Larkana, Hyderabad, and an overseas campus in Dubai, UAE. We have also established our campus at Gharo, which opened in Fall 2022.

At SZABIST, you will become part of a community that believes research is an integral part of academic excellence. We encourage participation in research and extra-curricular activities enabling our students to realize and nurture their true intellectual and professional potential.

SZABIST also offers numerous scholarships and financial assistance to make education accessible and affordable for all of its students. In order to augment students' learning experience and continuously improve the standard of education, the Institutional Research Department/Quality Enhancement Cell periodically assesses all programs to enhance the quality of education being imparted.

SZABIST is investing considerable resources for renovation and upgradation of its infrastructure and acquisition of additional physical facilities for its campuses. A "Graduate Research" is also being established to fulfill emerging research and academic requirements.

As I welcome the new students, I encourage them to strive for excellence and while they equip themselves with marketable skills, they should actively work to promote the values of a tolerant, inclusive and pluralistic society.

The motto of SZABIST is to provide students the opportunity to experience university life in a way that helps them to discover themselves whilst focusing on their professional goals. So I wish you success in your years at SZABIST.

**Dr. Azra Fazal Pechuho** Chancellor SZABIST

## PRESIDENT'S MESSAGE



It is my pleasure to welcome prospective students to Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST), a tertiary education institute known for its high quality and broad range of undergraduate and postgraduate programs and premium learning environment. SZABIST believes in encouraging students to discover their talent and strengths and achieve their educational, professional, and personal aspirations.

Over the past 25 years, SZABIST's national and international market reputation has been significantly enhanced. This is evident from the increased enrollment of about 11,000 students in its five Campuses-Karachi, Larkana, Hyderabad, Islamabad and Dubai (UAE).

SZABIST, guided by the vision of its Founding Chancellor, Shaheed Mohtarma Benazir Bhutto, is today a leading higher education institution for the youth of Pakistan aspiring for a high quality, relevant education. Our diversified academic portfolio offers a range of courses in 15 Bachelors, 16 Masters and 5 Doctoral level programs in the field of Management, Computing, Social Sciences, Media, Engineering, Biosciences, Public Health, Education and Law. This prospectus provides you with comprehensive information about our programs. The Institute, in compliance with the requirements of Higher Education Commission and Accreditation Councils, has developed curricula which not only relates to prevailing market demand but also prepares students with the knowledge and skills for the future needs of Pakistan's growing economy.

We are proud of our competent faculty and professionals who teach according to rigorous academic standards, evolving market requirements and provide a supportive environment for personal development. In addition to a wide spectrum of disciplines as presented in this Prospectus, SZABIST also offers exciting opportunities for co-curricular activities. Our Student Societies organize debates, drama, sports competitions, guest speaker sessions, workshops, and build networks with the Alumni and renowned companies for assistance in job placements.

Moreover, SZABIST was awarded 94% for its Quality Enhancement processes. Quality assurance measures are rigorously applied through tools such as Program Self-Assessment Reports, feedback of relevant stakeholders, publications and fulfilling documentation requirements of the regulatory authorities.

We hope you will become part of the SZABIST community of students and graduates and ultimately the global network of SZABIST alumni.

**Shahnaz Wazir Ali** President SZABIST

## VICE PRESIDENT'S (ACADEMICS) MESSAGE



A great leader Mr. Nelson Mandela said: "Education is the most powerful weapon which you can use to change the world."

SZABIST University has seen exponential growth in its programs, students, and physical infrastructure since its inception in 1995. This could be possible with the full support of its Management, especially of its worthy Chancellor, Dr. Azra Fazal Pechuho.

The whole purpose of education is to create "Analytical Minds". As a responsible institution, we just don't believe in classroom studies but believe in complete personality development. We, therefore, regularly conduct co-curricular and extracurricular

activities through our various students' societies. We aim to prepare our students to be useful to society.

SZABIST University now has six campuses in Karachi, Islamabad, Larkana, Hyderabad, Gharo, and Dubai. Karachi campus is the mother campus having more than 8000 students enrolled in its 40-plus academic programs in Management Sciences, Computer Science, Social Sciences, Media Science, Life Sciences, Education, Mechatronic Engineering, and Law. Our three-year LLB program is offered in collaboration with the University of London.

SZABIST University programs comply with HEC recommended course plans and are accredited by regulatory bodies such as NBEAC, NCEAC, PEC, NACTE, and CIEC. The learning outcomes of the programs ensure to create critical & creative thinking, acquire problem-solving skills, and professionally handle all pedagogical tools. We are fully aware that a University without Research is like a "Body" without a "Soul"; therefore, we emphasize research activities at levels in our programs.

Finally, I thank all the newcomers for choosing SZABIST University for their academic pursuits and wish them a happy stay during the entire period of their course of studies. I expect, as SZABISTian, you will show a high level of maturity through your conduct and actions.

**Prof. Dr. M. Altaf Mukati** Vice President (Academics) SZABIST

## VICE PRESIDENT DEVELOPMENT AND FINANCE MESSAGE



Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology initiated by Shaheed Mohtarma Benazir Bhutto and currently functioning under the able leadership of its Chancellor Dr. Azra Fazal Pechuho has emerged as a leading higher education institute that plays a vital role in producing highly qualified graduates.

Here we provide the environment, facilities, academic and professional experiences, and opportunities for research that aim at a creative, ethical, smart and holistic personality. With the commencement of the new academic year, students are encouraged to utilize the wide range of services and facilities, the events, programs, seminars, and festivals that will make their life at SZABIST interesting.

Get involved, make the most of your time and gain the experience that will make you the smart individual in demand at national and multinational firms within the country and abroad.

We are here to support you and welcome you to a fulfilling and interesting period at SZABIST.

### Nasreen Haque

Vice President (Development and Finance) SZABIST

## VICE PRESIDENT'S (ADMINISTRATION) MESSAGE



I am delighted to welcome you to Shaheed Zulfikar Ali Bhutto Institute of Science and Technology. At SZABIST University, you will become part of a strong and supportive community that values academic excellence and diversity.

The unfailing dedication and vision of Shaheed Mohtarma Benazir Bhutto has led SZABIST University to grow into an exceptionally well established and well reputed institution. Today, SZABIST University has developed into a strong multidisciplinary institution with campuses in Karachi, Hyderabad, Larkana, Islamabad, Gharo and Dubai.

Over the years, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST) University has excelled in the field of education and has produced

some of the most well qualified and outstanding graduates.

We at SZABIST University are dedicated not just to the purpose of education and learning, but also to assisting and guiding students to adjust to university life and to discover their skills and talents. We encourage students to promote a campus environment that is respectful, supportive and safe.

SZABIST University is truly proud of the role students play in the life of the institution and it is hoped that you will also play an important part.

It is hoped that the Prospectus 2024 will serve as a useful guide in planning out your academic journey and that each of you have a well learning and fruitful experience here at SZABIST University.

With best wishes

**Imtiaz Kazi**Vice President Administration
SZABIST

## INTRODUCTION

SZABIST University is proud to offer quality education in the areas that are crucial for Pakistan's socio-economic development. It was established as a Degree Awarding Institute (DAI) in the year 1995 through the Legislative Act of Sindh Assembly and chartered as University by Sindh Assembly through Sindh Act No. XIX of 2023. It is ranked as one of the most reputed universities by the Higher Education Commission (HEC) of Pakistan and the Chartered Inspection and Evaluation Committee (CIEC).

SZABIST University comprises six campuses located in Karachi, Hyderabad, Larkana, Islamabad, Dubai (UAE), and Gharo with a current student population of approximately 19,000. Collectively, over 31,000 talented graduates have been proudly awarded degrees by all campuses of SZABIST University. Our alumni are sought by national and multinational organizations and hold key positions in several reputable firms. All programs of SZABIST University are conducted under strict compliance of the relevant regulatory bodies such as NBEAC, NCEAC, NACTE, PEC and KHDA Dubai (UAE).

The university offers undergraduate, graduate and post graduate degrees in 5 different disciplines: Faculty of Management Sciences, Faculty of Computing and Engineering Sciences, Faculty of Media Sciences, Faculty of Education and Social Sciences, and Faculty of Life Sciences. Additionally, SZABIST University offers LLB program, CertHE (Law), and BABS program as external programs in affiliation with University of London and Coventry University, UK, respectively.

SZABIST University is a registered member of the following international and national associations: International Association of Universities (IAU), Paris. The Association to Advance Collegiate School of Business (AACSB), Singapore. Asia-Pacific Quality Network (APQN), People's Republic of China. The Talloires Network, USA. The Chartered Institute of Logistics and Transport (CILT), UK. Management Association of Pakistan (MAP), Karachi. Marketing Association of Pakistan (MAP), Karachi.

Moreover, SZABIST University has signed MoUs with various reputable and distinguished organizations and institutions such as Istanbul Medipol University, Turkey; University of London, UK; John Hopkins University (Gates Institute), TCF, ICRC, Aman Foundation and JS Bank. SZABIST University Hyderabad Campus is situated in the prime location of Thandi Sarak, State Life Building, Ground, 2nd, 3rd, 4th & 8th floor.

PROSPECTUS 2024 01

## **INTRODUCTION**

















## PROGRAMS & CURRICULA

### **DEGREES OFFERED**

All five campuses of SZABIST offer various degree programs in different disciplines so please refer to page 47 for details.

### **Bachelor of Business Administration (BBA)**

SZABIST offers a four-year (eight semesters) BBA degree program of 144 credit hours. This is SZABIST's flagship program. For the BBA program, students are required to complete 46 courses and 03 credit hours Business Project, a 03 credit hours Community Service Project and 03 credit hours Graded Internship. The students will take 4 Program Electives courses from Management, Marketing, Finance, or Supply Chain Management. To obtain the BBA degree, students have to complete 144 credit hours including a six week graded internship. Maximum time limit to complete the BBA degree is six years. BBA program is an ACCA accredited program; those who complete BBA from SZABIST, Hyderabad, will get an exemption in 06 out of 09 ACCA Foundation papers (F1, F2, F3, F5, F7 and F9). BBA students and alumni are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. BBA Program has been accredited by National Business Education Accreditation Council (NBEAC) and is also affiliated with Chartered Financial Analyst (CFA) Institute.

### Bachelor of Science in Accounting & Finance (BS A&F)

SZABIST University offers a 4-year (8 semesters) Bachelor of Science in Accounting & Finance (BS A&F) program, consisting of 47 Courses, a 3 credit hours Capstone Project, and 3 credit hours graded internship. Students have to complete 144 credit hours to obtain the BS A&F degree. The maximum time limit to complete the degree program is six years. Students have the option to take:

### Finance as Major and Accounting as Minor / Accounting as Major and Finance as Minor

Graduates of BS A&F program will get exemptions in 9 papers from both Institute of Chartered Accountants of Pakistan (ICAP) and Association of Chartered Certified Accountants (ACCA), UK. BS A&F students are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass 3 case studies. Whereas, BS A&F alumni will be exempted from all 13 courses and operational level case studies and will only attempt 2 case studies. The BS A&F program is affiliated with the Chartered Financial Analyst (CFA) Institute.

SZABIST University also offers a 2.5-year Bachelor of Science in Accounting & Finance (BS A&F-2.5) program

exclusively for CAF qualified students of the Institute of Chartered Accountants of Pakistan (ICAP). CAF qualified students are exempted from 60 credit hours (20 courses) of course work and have to complete 78 credit hours (27 courses) of course work, a 3 credit hours Capstone Project, and 3 credit hours graded internship. Students of BS A&F-2.5 year can also select Finance as Major and Accounting as Minor /Accounting as Major and Finance as Minor.

### Bachelor of Science in Computer Science (BS CS)

SZABIST offers a four-year (eight semesters) BS Computer Science degree program which is accredited by National Computing Education & Accreditation Council, (NCEAC). The program covers a wide range of courses in core Computer Science, Information Technology and Software Engineering. The program is essentially a full time day program and consists of 44 courses (five courses per semester) with a total of 130 credit hours. The complete course plan includes 7 technical electives. These 7 technical electives provide intensive learning in the diversified areas of Computer Science and allied disciplines. Internship opportunities are provided to complete degree requirement. The maximum time limit to complete the degree program is six years.

### Bachelor of Science in Software Engineering (BS SE)

The BS Software Engineering program is offered through a trained foreign qualified faculty. It consists of 44 courses with a total of 130 credits hours. The maximum duration to complete the degree is six years. The core courses focus on the fundamentals of software engineering followed by a broader range of courses through which students can choose to specialize their learning. The BS Software Engineering curriculum covers all important facets of the discipline of software engineering including project analysis, requirements management, software architecture, software development, and quality assurance. Throughout the degree program, students are exposed to the theory, techniques, tools, and practicalities of software engineering.

### Bachelor of Science in Artificial Intelligence (BS AI)

The Bachelor of Science in Artificial Intelligence BS(AI) program is offered by the Department of

## PROGRAMS & CURRICULA

Computer Science. This comprehensive four-year program encompasses a total of 44 courses, amounting to 130 credit hours. To fulfill the degree requirements, students are provided with internship opportunities, integrating practical experience with academic learning. The BS(AI) program is structured as a full-time, daytime curriculum, meticulously designed to cover the forefront of technological advancements in fields such as Machine Learning, Deep Learning, Explainable AI, Evolutionary Computing, Computer Vision, Software Engineering, and Natural Language Processing. The program comprises of 49 credit hours of Computing Core courses, 15 credit hours of Domain Core courses, 21 credit hours of Domain Electives, 9 credit hours of Mathematics and Supporting courses, 3 credit hours of Elective Supporting courses, and 33 credit hours of General Education Requirement courses. The maximum duration of the program is six

#### Bachelor of Science in Social Sciences (BS SS)

SZABIST offers a four-year (eight semesters) BSSS degree in Economics Sociology, Economics, International Relations and Sindh Studies. BS Program is essentially day program and consists of 46 courses (six courses per semester) including research project (I&II) with a total of 142 credit hours. The maximum time limit to complete the BS degree is six years.

### Masters of Business Administration (MBA)

MBA program has been designed to impart quality professional knowledge and understanding of modern management tools, leadership, entrepreneurial skills, and managerial and communication competencies. MBA Program has been accredited by National Business Education Accreditation Council (NBEAC) which is an independent professional council established by Higher Education Commission.

SZABIST offers MBA programs with specialization in Marketing, Finance, Management, Human Resource Management, Supply Chain Management, Banking and Buisness Analytics. The maximum duration to complete MBA degree program is four years.

MBA program is intended for students having a four-year bachelor degree (e.g. BS-CS, BE, BBA etc.) or 16 years of education in different disciplines. The duration to complete this program is two years with 72 credit hours. Twenty- two courses (66 credit hours) and 6 credit hours of Research Project OR Thesis spread over two semesters

(03+03) are required to complete the program. Students with undergraduate degrees in Management Sciences, Business Administration, Commerce or equivalent qualification are exempted 36 credit hours of course work and they are required to complete remaining 36 credit hours in 1.5 years. Students are also required to undertake a six week duration of internship during summer.

MBA (non-finance electives) students and alumni are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. MBA students with finance electives and alumni are exempted from all 13 courses and operational-level case studies and will only attempt two case studies.

### Master of Science in Management Sciences (MS MS)

SZABIST offers MS degree with concentration in the specialized areas of Human Resource Management, Marketing, Finance and Business Analytics. The MS program is an evening program and all classes are held during week days. There are two streams available for MS. One Stream is by Course Work and other one is by Research Work. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In Research Work Stream, the student is required to complete 8 Courses and Two IRS OR one Thesis. In both the streams, 30 credit hours are to be completed. The time limit to earn an MS degree is from 1.5 to 4 years. As per HEC guidelines, all MS students are required to clear GAT General test or HAT relevant with minimum 50% score.

### Master of Science in Computer Science (MS CS)

Master of Science in Computer Science (MS CS) SZABIST offers MS (CS) degree in three domains: Core Computer Science area and in two specialization tracks, i.e., Software Engineering (SE) and Networks & Security (N&S). Students are required to complete 3 focused courses in any specific domain.

The program is of 2-year duration and is offered in the evening. It requires 33 credit hours to complete. Student has the option to complete MS through course work only or with research. If student opts for course work only, he/she is required to complete 11 courses of 3 credit hours each. Else, the student is required to complete 9 Courses (27 credit hours) and Two Independent Research Study (6 credit hours) OR One Thesis (6 credit hours).

## PROGRAMS & CURRICULA

Eligibility for this program is a 4-year BS (CS) or 2-year MCS degree from a recognized institution. The candidates with a 4-year professional degree (BE, MSc, etc.) may also apply but will require to complete deficiency conversion courses (up to 12 credit hours courses to be determined in consultation with Program Manager). The programs such as BSCS, BSIT, BSSE, BSCE & BSCSE shall not require any extra courses. As per HEC guidelines, all MS students are required to clear GRE or GAT General test or HAT relevant with minimum 50% score. The maximum time limit to complete the MS degree is four years.

### **Grading Plan**

The following Letter Grade Plan is followed at SZABIST:

Letter	Range	Grade Point	Degree Requirement
A+	90 – 100	4.00	
A	85 – 89	3.75	
A-	80 – 84	3.50	
B+	75 – 79	3.25	
В	70 – 74	3.00	
В-	66 – 69	2.75	MS Degree Requirement
C+	63 – 65	2.50	Master's Degree Requirement
С	60 - 62	2.00	Undergraduate Degree Requirement
C-	55 – 59	1.50	
F	< 55		



PROSPECTUS 2024 05

## **ADMISSION REQUIREMENTS**

#### NOTE:

- All applicants will be required to appear in an entrance test and interview/group discussion held by SZABIST.
- Conversion of A-Level grades or equivalent must be 50% and above for all undergraduate programs.
- Intermediate students are required to get their SSC and HSSC certificates attested by Inter Boards Coordination Commission (IBCC).
- Equivalency from Inter Boards Coordination Commission (IBCC) is mandatory for O & A Levels/High School Diploma/IB Diploma or equivalent.
- High School Diploma or International Baccalaureate (IB) students appearing for examination from Pakistan shall have to pass Islamiat, Pakistan Studies & Urdu either with O Levels or SSC.
- Verification of last degree from Higher Education Commission of Pakistan (HEC) is mandatory for all Masters, MS, & PhD students.
- Equivalency of international degrees from Higher Education Commission of Pakistan (HEC) is mandatory for all Masters, MS, & PhD students.
- Students waiting for results can also apply.
- Admission of Foreign students are subject to clearance from the relevant Agencies/NoC from HEC.

### BACHELOR DEGREE PROGRAMS

### **BBA/BS Programs**

For admission in the BBA/BS programs, the candidate must have completed O-Levels (minimum 8 subjects including 5 compulsory subjects; English, Urdu, Maths, Islamiat & Pakistan Studies) and A-levels (minimum 3 Subjects)/12th Grade/Intermediate with minimum 50% marks or equivalent from a recognized institution.

For BS Computer Science, Software Engineering and Artificial Intelligence programs, candidates who have not studied Mathematics at Intermediate/A-Levels have to pass deficiency courses of Mathematics (06 credits) in first two semesters.

### MASTER DEGREE PROGRAMS

### Master of Business Administration (MBA)

For admission in the MBA program, the candidate must possess a 4 years bachelor degree with minimum 2.0 CGPA or 16 years of education with minimum 50% marks from a university recognized by the HEC.

### Master of Science in Management Sciences (MSMS)

For admission to MS Management Sciences candidates must possess 16 years of relevant education with minimum 50% marks/2.0 CGPA from a university recognized by HEC. GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score.

### Master of Science in Computer Science (MSCS)

For admission to MSCS program, candidates must possess 16 years of relevant education with minimum 50% marks/2.0 CGPA from a university recognized by HEC. GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score.

### **Admission Test Alternates**

### For Bachelors Programs

Applicants may submit a minimum 1100/1600\* score of SAT 1

The scoring of SAT 1 will be considered as follows;

SAT score	Test Marks
1500 - 1600	50
1400 - 1499	45
1300 - 1399	40
1200 - 1299	35
1100 – 1199	30

\*Candidates securing 100% marks in SZABIST's admission test will be equivalent to 50.

### For Masters Programs

50% score of GMAT for Master Programs.

### For MS Programs

GAT (General)/HAT relevant with minimum 50% score. GRE (General) with a minimum cumultive score of 300.

### **Transfer Policies**

Transfer into SZABIST can only be accepted for candidates who have studied or are currently studying at HEC recognized universities. Transferring credits must have a minimum letter grade of B or above (or 80% marks). The request for transfers must be made at the time of admission. Candidates will be required to clear all SZABIST admission requirements.

### Bachelor Course Transfer

A maximum of up to 50% credits may be considered for transfer into BBA/BS programs.

## **ADMISSION REQUIREMENTS**

### MBA Course Transfer

- A maximum of up to 6 credits may be considered for transfer into the MBA 36 credit hours program.
   Research Project/Thesis is not transferable.
- A maximum of up to 36 credits may be considered for transfer into the MBA 72 credit hours program.
   Research Project/Thesis is not transferable.
- Only relevant courses of the EMBA (SZABIST) program are transferable into the regular MBA program subject to the eligibility criteria of the MBA program at SZABIST.

### MS Course Transfer

Maximum 50% of course work may be transferred which was done within the last two years from the date of admission subject to fulfilling minimum CGPA and other requirements.

### SZABIST Inter-Campus Transfer

For inter-campus transfer, the candidate must fulfill the admission requirements of the given program at the local campus as per applicable transfer policy.

All courses/grades are transferable. A transfer fee will be payable by students transferring from any other SZABIST campus.

### Certificate Course Transfer

For transfer candidates from the SZABIST Certificate Programs, transferability of certificate courses is as follows:

- Maximum 05 courses are transferable in under graduate
- program.
- 2/3 courses are transferable in Masters program except for MS or equivalent.

For MS, Maximum 2 Certificate Courses may be transferred which were done within the two years from the date of admission subject to fulfilling minimum CGPA and other requirements.

The minimum letter grade of Certificate courses from SZABIST which are transferable to regular degree program: for all master's program except for MS, C+ and above and for bachelor's programs C and above.

The minimum letter grade of Certificate courses from SZABIST which are transferable to regular degree program: for all master's program except for MS, C+ and above and for bachelor's programs C and above. For MS Programs: Equivalent courses with Grade Point of 2.75 (B-) and above for SZABIST Students; and 70% or above marks for external students. Equivalent courses with Grade point of 3.00 (B) and above for SZABIST Students; and 80% or above marks for external students.

The minimum letter grade of Certificate courses from SZABIST which are transferable to regular degree program: for MS its B- and above, for all master's program its C+ and above and for bachelor's programs its C and above.

### Financial Assistance

SZABIST offers financial assistance to eligible and deserving students in the form of various SZABIST-funded and external donor-funded scholarships as under:

- SZABIST Merit-Based Scholarship
- SZABIST Need-Based Scholarship
- General Subsidy
- Sindh Police Shaheed Scholarship
- SZABIST Employee Children Fee Concession
- SZABIST Employee Continuing Education Scholarship
- Sindh Education Endowment Fund Scholarship
- Baluchistan Education Endowment Fund Scholarship
- USAID Funded Merit and Need-Based Scholarship
- Various community-based scholarships

SZABIST also offers loan facilities as under:

■ Ihsan Trust's Qarz-e-Hasna Interest Free Loan Facility





### **FACILITIES**

### Video Conferencing

SZABIST is the first educational institute in Pakistan that introduced multi-point interactive Video Conferencing (VC) technology in 2001. SZABIST regularly uses VC technology in interactive learning sessions among Dubai, Islamabad, Larkana, Hyderabad and Karachi Campuses as well as in conducting seminars, lectures and presentations with foreign universities. Video Conferencing has been the most effective mode at SZABIST in bringing in live and interactive guest lecturers from national and international experts. Video Conferencing technology opens the door to exciting and valuable learning experiences. By allowing access to and interaction with resources that might have otherwise been too inconvenient or expensive, Video Conferencing ensures a highly enriched learning environment. By taking the lead in opening this field in educational practices, SZABIST also lead in creating the most advantageous nexus between cutting-edge technology and effective learning.

### Conferences/Forums/Seminars/Guest Lectures

To increase awareness and understanding of information technology and business-related issues, many conferences, forums, seminars and guest lectures are organized regulary. These seminars and lectures are in continuation of SZABIST University policy towards entrepreneurship development and networking. Seminars are conducted and attended by the leading figures from business and industry as these sessions address various business practices.

### **Professional Development Courses**

SZABIST University also offers several productivity- based certificate courses as part of its continuing education program. The courses are developed jointly by the faculty, specialists and certified trainers in specific subject areas. The aim of these courses have been to initiate discussion and modeling of practical problems, business opportunities and to improve understanding of current issues in Information Technology, Business and Management. These courses include topics such as e-Commerce, New Programming Languages & Tools, Business & Entrepreneurship Management, Selling Skills, Conflict Resolution, Effective Leadership, and Productivity, Quality-Related Issues, Brand Management and Digital Marketing.

In addition to business productivity courses, the institute arranges study groups, mentor workshops and courses for students for removing deficiencies, if any. These courses include Business Communication, Technical Writing, Public Speaking, Personality Grooming, Interviewing Techniques and learning of Statistical Package for the Social Sciences (SPSS).

### Classrooms/Labs/Libraries

Classroom sessions at SZABIST are quite different from other professional university setups. Teachers pay individual attention to the limited number of candidates selected purely on merit. Instructors encourage participation instead of a monologue. Students utilize various visual aids for presentations and are always on alert because of the regular unannounced quizzes, assignments and the mid-term exams. All classrooms are air-conditioned and are equipped with multimedia projectors, wall mounted screens and white boards. All classrooms are equipped with computers along with broadband intranet and internet connectivity with electricity backup through UPS.

SZABIST computer laboratories are regularly revamped with brand new labs space, furniture and latest machines with giga bite network connectivity to cater student's requirements. "Campus licensing" of latest software, including development tools, and operating systems provide an unmatchable environment compared to majority of well-reputed universities of Pakistan.

SZABIST has computing facilities supported with 24x7 broadband connectivity of 295 Mbps committed bandwidth to the internet and intranet. SZABIST is Wi-Fi enabled since 2002. Two new computer labs are added to the existing labs infrastructure. Students and guest are welcome with their BYOD and can access all network available resources wirelessly. SZABIST has also acquired Microsoft IT academy and Oracle Academic Alliance program.

A dedicated Lab for Management Science program is established for research development and training purpose for students MS and PhD program this lab is equipped with tremendous high speed 12th generation computers for students.

SZABIST established Smart Lab equipped with tremendous high speed 12th generation laptops for students. These laptops are connected with SZABIST network through Wi-Fi.

A state of the art Smart screen is also available for teacher and students. They can interact with each other in more effective and robust way.

SZABIST has commissioned Robotics and Artificial Intelligence lab equipped with tremendous high speed GPU laptops for students. These laptops are connected with SZABIST network through Wi-Fi and brand bend to cater students assignments and projects.

SZABIST library holds a rich collection of books, Journals, Magazines, and a large number of digital libraries and online databases. SZABIST Library has 25 workstations through which students can access an unlimited number of journals and magazines. This facility is further extended to registered students through the SZABIST network on demand. SZABIST library provides comfortable physical spaces and furniture with a peaceful environment. Moreover, SZABIST has its own Research Centers, i.e., the Centre of Renewable Energy Research (CRER), and Sustainable Development Research Centre (SDRC) with their own specialized library for reference and general reading.

Moreover, SZABIST has its own Research Centers, i.e., the Centre of Renewable Energy Research (CRER), and the Sustainable Development Research Centre (SDRC) with its specialized library for reference and general reading.

### Research Committee (RC)

SZABIST places high emphasis on research & development and devotes conscious efforts to promote research culture among faculty and students alike. In this regard, a Research Committee (RC) is constituted to coordinate, record, and formalize diverse research activities across different departments and campuses to bring harmony and create an impact for national and international recognition of the university. Research publications produced by faculty and students are given a handsome remuneration depending on the level and merit of publications, vetted by RC. All sorts of participations in national and international conferences by the faculty & staff are approved by the RC. This may also propose a change in research policy for the university to BASR.

### Board of Advanced Studies and Research (BASR)

The objective of BASR is to facilitate and monitor Academic Research at MS and Ph.D. levels and to regulate policies related to Research Publications. The BASR discusses and approves or disapproves the recommendations forwarded by Doctoral and Research Committees across all campuses of SZABIST University. The board proposes by-laws and policies regarding MS & PhD programs and the initiation, execution, and award of research degrees. It also provides approvals on the appointments of supervisors for MS and PhD research students and endorses titles and synopses for the theses or dissertations.. The decisions taken in BASR are ratified in the Academic Council.

The frequency of BASR's meetings is twice a year. BASR's meetings are chaired by the Vice President Academics and its secretary is the Registrar. The members of BASR include Deans, HoCs, HoDs and External experts from academia or industry.

### **Academic Council**

The Academic Council is the highest academic statutory body of SZABIST University. The Council is empowered to approve or disapprove any agenda item forwarded through a due process to it. The agenda items are generally related to introduction of new program, changes in existing program structure, introduction of new courses, revision in course outlines, policy framework related to entry and exit of students and policy matters pertaining to research and development. The agenda items are first prepared at the departmental level and presented in the Board of Studies (BOS) meetings, chaired by the HODs (Head of Departments). All departments at all campuses conduct similar meetings at their respective campuses. Item approved by BOS across all campuses are forwarded to the relevant Dean, who compiles all BOS meeting's agenda and circulates the same to relevant departments under him/her.

Agenda items are thoroughly deliberated at this level. All HODs across campuses and their designated BOF members attend the BOF meetings, which are chaired by the relevant Deans. BOF meetings include some external members from academia and industries as well. The approved items from all BOF meetings are forwarded to the Registrar through Vice President (Academics). The registrar is the secretary of the Academic Council (AC), who compiles all the BOF-forwarded agenda items at one place and circulates it to all the members of the Academic Council. If the agenda items are related to Research work or research related polices, these are included for discussion in the Board of Advanced Study and Research (BASR) meetings. BASR agenda booklet also include the approved items of Doctoral Committee (DC) and Research Committee (RC).

The frequency of AC and BASR meetings is twice a year. AC meetings is chaired by the President and Co-chaired by Vice President Academics. BASR meetings are chaired by the Vice President Academics. The members of AC & BASR include Deans, Registrar, HoCs, HoDs and external experts from academia and industry.

### Office of Research Innovation and Commercialization (ORIC)

ORIC is an academic support department in Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology (SZABIST) that provides comprehensive services for research innovation and commercialization. It serve as a bridge in between multiple faculties of SZABIST and produces quality research and innovative products for filing patents / trademarks / designs.

ORIC is the epicenter of all research and development activities within all campuses of SZABIST. It provide assistance to faculty members and research students in producing research article / projects, at national as well as international level and arranges periodic workshop / training /seminar / conferences.

ORIC shorten the gap between acquired knowledge and required knowledge within the organization. The complete working of ORIC evolve in coaching, counseling, recognition and feedback. The leadership of ORIC is concerned with integrity, impartiality, professionalism, partner focus, efficiency, and mutual respect.

Team ORIC is continuously engaged in providing strategic direction to all research and development initiatives produced within the territory of SZABIST, and in promoting joint research activities with other horizontal and vertical partner institutions.

ORIC strengthen the relationship with industry, government and non-government organizations for promoting entrepreneurship, technology transfer, and commercialization activities produced.

ORIC concentrate on sustainability and reliability of the research products and has a mandate to earn yearly revenue from licensing, royalties, policy advocacy and other related activities.

Moreover, ORIC also invest in capacity development of the faculty, staff and other researchers in the university. It periodically arranges exhibitions, showcasing events, industry linkages fairs, and seminars at one side while training, workshop, innovation, and commercialization seminars on other side.

### WHY ORIC

In recent millennium, global knowledge economy has strengthened the need for strategic partnerships that go beyond their traditional roles as collaborators.

World-class research universities are at the forefront of pioneering such partnerships. They are intended to run longer, invest more, look beyond and sharpen the competitiveness of industries, universities and regions.

Keeping in view of these challenges, the Office of the Research, Innovation and Commercialization has been initiated at SZABIST, Karachi.

The mission of ORIC as outlined by HEC is "Transforming Pakistani universities to drive high impact innovation, applied research and entrepreneurship". The ORIC's vision

is to enable and lead Pakistan's transformation to a knowledge-based economy dependent upon innovation and entrepreneurship.

The Office of Research Innovation and Commercialization is being established to link research and commercialization from SZABIST with emerging and existing firms across Pakistan and around the world.

As an umbrella, ORIC is meant to work closely with the researchers and on campus Incubators and S&T Park. The ORIC office also serves as a conduit to local, regional and federal partners to ensure research results aid the growth of Pakistan's economy.

ORIC is meant to work on commercialization of research and helping startups to incubate, grow, create new jobs, products, services, markets, carry out innovation and bring in funding. The following are the prime activities of ORIC at SZABIST:

- Managing applied research, innovation and commercialization activities within the universities through industrial collaboration;
- Intellectual Property Commercialization through documentation, evaluation, protection, marketing, licensing and royalties agreements;
- Partnership with national / foreign universities, government departments, and non-government organizations for reports, publication, contracts and consultancies;
- Participate in government programs and in securing funding for research from public and private sector;
- Organizing training, workshop, seminars, focus group discussions for maintaining academia - industry linkage as well as capacity development;
- Help final year students through startups and joint ventures.
- Managing functions of Business Incubation Centre by empowering entrepreneurs with the mentorship, training and access to capital assistance.

### ORIC IN 2024 - 25

ORIC SZABIST secured X catagory (67 Marks) in HEC evaluation 2023-24, which is leading towards research intensive university and bidding global research projects and collaboration.

ORIC SZABIST is continuously strengthening its relationship with the faculty and non-faculty members of SZABIST inwards, and with government & non-government organizations, industry and other higher educational institutions outwards.

Main purpose of this association is to develop a long term industry – academia relationship that would cadre the essential elements of the fourth wave of industrial revolution (Industry 4.0).

Industry 4.0 is the origin of a new revolution since it integrate virtual and physical system of manufacturing and improved productivity, efficiency and quality of the product. Big Data, artificial intelligence and digital conversion of industrial processes, are essential ingredients of this wave.

ORIC has compiled its Five Year Plan with special emphasis of industry (4.0). Sustainable Competitive advantage is the only objective of this proposal which can be achieved through training & development, coaching and guiding the future scientist and researchers. This plan has also defined "Input – Throughput – Output" strategy that creates enabling environment for linking academia with the industry.

ORIC SZABIST has completed it shalf journey for academic session 2023-24 and achieved the target of Research Excellence through: competitive grant management, coordination & networking, policy advocacy, case studies and civic engagement events. Similarly, ORIC is promoting Innovation & Commercialization activities through: IP legislation, IP linkages, networking & coordination, and commercialization activities.

ORIC has published Research Funding Window (RFW) and Country Profile - Research & Innovation Indicators (CPRII) for researcher and scientists. ORIC SZABIST contesting several national and international research projects such as Medical Research Council United Kingdom and Higher Education Commission (HEC) supported grants Technology Development Fund (TDF) and Rapid Technology Transfer Grant (RTTG).

ORIC SZABIST has fully functional website an and ranked in "X Category according to latest HEC evaluations .During the reference period of 2023–24 ORIC engaged in the mentoring and nurturing activities of Final Year Project students through the Business Lounge initiative and emerged as a winner in the National Idea Bank III Competition 2024, which was held at Aiwan-e-Saddar Islamabad on February 15, 2024. ORIC has organized numerous workshops and trainings on patent filing, innovative research, and project development activities for researchers, faculty members, and students.

ORIC helped inter-departmental intellectual property claims and facilitated their submission to IPO Pakistan. It is actively engaged in industry-academia linkages and periodically invites successful businesspeople to share their success stories with the students. ORIC also hosted mentoring and

collaboration activities within different departments of the university and provided its assistance to develop strategic relationships with government, donors, and the private sector. It played a pivotal role and contributed to the success of ZAB E FEST, a yearly showcasing event of the university, and provided seed money assistance to the potential FYPs

Business Incubation Centre (BIC has been established at SZABIST University to provide basic infrastructure and allied facilities for research and young entrepreneurs who are interested in developing early-stage business ventures. Our Goal is to facilitate and produce successful firms that will contribute to community and economy.

We have launched the 1st Cohort at BIC and organized Bootcamp for awareness. We anticipate the graduates of BIC may create jobs, revitalize neighborhood, commercialize new technologies and strengthen local and international economies. Instead of creating job seekers, we try to turn new graduates into job providers.

For further i nformation about ORIC SZABIST please visit oric.szabist.edu.pk

### Data Centre

The Data Center has been designed with the Telecommunication Industry Association's (TIA-942) Tier-II international infrastructure standards including raised flooring, redundant HVAC precision units, fire detection, alarm & suppression system, precision UPS & power system, CCTV and access control system for remote monitoring. The Data Center is responsible for providing LAN & WAN connectivity, Web Services, Video Conferencing, hosting private cloud services and Server Farm (including Domain Controllers, Proxy, Email, Web, Network Management, Electronic Bulletin Board, ZABDESK ERP and many more) and other related services of all five campuses, ZABTECH and IMC.

### **Computing Resources**

Computing resources of the data center is comprising of 20 TFLOPS of processing speed with high performance and reliable 100 Tera Bytes of storage capacity. The data center is equipped with UPS backup and 12-ton redundant precision cooling system for reliability of data center and protected by FM-200 based Automatic Fire Detection and Suppression System and manual fire extinguishers. CCTV cameras and Access Control systems are intact for effective surveillance and restricting unauthorized access to the facility.

### **Campus Network Infrastructure**

Campus network is based on n-tier architecture which includes security, core, distribution and access layers. The backbone comprises three upper layers i.e. security, core

and distribution as well as primary & backup fibre optic link connectivity for all buildings. In Data Center, redundant Chassis-based routers, core and distribution switches and firewalls with high transmission rate are commissioned, where device and link redundancy has been maintained at every level to ensure un-interrupted ICT services to users. Gigabit Access Network has also been commissioned to ensure high-speed computing at user end, where access switches of high switching capacity are installed to handle data and multimedia traffic, efficiently. Proper NMS server installed to monitor and manage the whole network infrastructure, which can send alert on any fault, performance bottleneck and/or security issues.

### Wireless Mesh Network

A secured Wi-Fi mesh network has been implemented throughout the campus. Wireless indoor and outdoor Access Points (APs) have been installed to give internet/intranet access to students, faculty and staff employs latest wireless protocol 802.11n with each AP providing a bandwidth up to 300 Mbps to the users.

### Newsletters

SZABIST publishes Newsletter on regular intervals from all its campuses to update about the activities taking place at the campuses.

### ZABFM

### (www.zabfm.org)

ZABFM digital is a streaming simulcast radio station exclusively to impart and disseminate education for the students around the world via www.zabfm.org and ZABFM DIGITAL (Play store). An initiative taken by Shaheed Zulifkar Ali Bhutto Institute of Science & Technology and it was a substantive step into the field of education. It is an honor for the nation as we are producing the talented and most efficient candidates in the form of great speakers to the nation along with the responsibility of spreading knowledge through the airwaves. The 24/7 programming schedule covers various subjects of life like, Career Counseling, Planning & Development, Education, Infotainment, Awareness, Research, Documentaries, Talk Shows, Sports, Travel, Science & Technology, Media, Culture & Society, Technology & Inventions, Info-tech and social order, etc.

### **Student Support Services**

For more than a decade (2009-to date), the main campus of SZABIST has been fortunate to have a unique and diverse student body with a healthy record of activities and a proud history of achievements. Since 2014, with the establishment of the Department of Student Support Services a more organized and focused approach has been adopted with the aid of student advisory policies and guidelines for

activities in the form of standard operating procedures and financial prudence guidelines with emphasis on paperwork and documentation/reports for record keeping all of which added much needed structure to student activities at the institute. The Student Advisory Office and the Executive Development Centre (EDC) work under the SSS.

In 2015, the same system was gradually introduced at other campuses of SZABIST and by now they have all had annually elected student council bodies.

The Student Support Services aim to provide students with a platform that allows them to conduct activities which work towards the development of a stronger, wiser and a more united student populace in Karachi. It works to inculcate in young minds the values of unity, tolerance, inclusion and leadership and through engagement with other campuses of SZABIST and universities across the country realize the objectives of our core areas of focus, nationally as well.

The Student Support Services has an Office of Student Advisory and the Student Career Services and Alumni Relations working under it.

The Office of Student Advisory

The Office of Student Advisory/Affairs provides guidance on all extra-curricular activities that take place on campus. The Student Affairs Advisor:

- Manages and supervises overall activities of Student Societies and SZABIST Student Council (SSC) at SZABIST, Karachi. Acts as a liaison between the SSC and the management of SZABIST.
- Ensures that SSC and its societies' activities are held in compliance with the SSC constitution, financial and administrative procedures and SZABIST management guidelines.
- Arranges student activities within and outside campus through Activities Coordinators and staff of the Department of Student Support Services.
- Counsels students regarding their behaviour and general guidance and helps them to understand their potential and ways to pursue their goals.
- Certain cases may be referred to Head of Student Support Services or Vice President (Academics)

### SZABIST Student Council (SSC)

Established in 2009, the SSC has been a union of hardworking, ambitious and talented individuals across all programs of SZABIST elected under the Election Commission of SZABIST. The selection of SSC workforce is by means of rigorous process all on an annual basis to form the student government at the institute, under the supervision of the Student Affairs Advisor.

Furthermore, it acts as a parent body to its chapters in other campuses of SZABIST namely, SSC-Hyderabad Chapter, SSC-Islamabad Chapter SSC- Larkana Chapter, SSC-Dubai Chapter and SSC-Gharo Chapter.

### What does SZABIST Student Council (SSC) do?

The SSC has been engaged in initiating wide range of meaningful activities ranging from intellectual programs to competitive sporting events. Among the most notable is the annual LEAD Convention, where SSC provides a platform to the young leaders, from all universities across the city, to contemplate over the global issues that require sustainable yet immediate solutions.

To offer a vibrant and healthy students environment at SZABIST, the SSC also arranges the Annual Orientation to welcome the new students, Beach Party, Musical Concert, Mehfil-e-Mushaira, Qawwali night, Graduation Week and many more other entertaining events.

SSC, being a proactive student body, engages in community services to inculcate a responsible citizenship behaviour among students. In this regard, the SSC has signed MoUs with different organizations and NGOs to contribute in various noble causes. Urban Forest and The ELF (Environmental Leaders Forum) are two such MoUs where the SSC is practically engaged in environmental protection and conservation through trainings, awareness programs, fundraisers, students' projects and other healthy activities. The SSC has also joined hands with the Ismail Industries Foundation for reducing the use of plastic on campus. In collaboration with the Ismail Foundation, special bins have been placed across all campuses to collect plastic on a daily basis. Burns Centre is another organization, the SSC and Rotaract Club of Karachi Campus have vowed to work for. Under this MoU, the students of SZABIST contribute to spread awareness among masses related to managing injuries due to burns and their precautions. Further, SSC has also extended help to the countrymen whenever there is a need in times of national crisis like the flood disaster in the year 2022.

#### Structure of SSC

The SSC is an elected student body that is comprised of the Executive Branch (EB), Council of Common Interests (or Program Representatives), General Body and Societies Committee.

The Executive Branch of the SSC consists of elected members to serve as President, Vice President, General Secretary, Treasurer, Secretary Legal, Secretary Operations, Secretary Resource Mobilization, Secretary Media and Communication and Secretary Projects and Training.

#### The Five Pillars of SSC

The SSC and all its student associations and clubs fall under the purview of and are registered with, the Office of Student Advisory once they are formed. The SSC has 5 thematic pillars, under which different student societies and projects operate. Each student society offers engaging events and programs for the students at SZABIST. The events include Farewell Dinner and Alumni Reunion, Graduation Week, Recreational Trips and Learnfest from the Student Council. SZABIST Cricket League and Sportfest from the Sports Society, Educational Study Tours from Social Sciences Society, Startup Extravaganza from the Entrepreneurial Society and Retail Extravaganza from the Marketing Society. ZABWELFARE arranged Medical Facilitation Camps and various donation drives (food commodities, clothes and tents) for the Flood Affectees, Blood Donation Drives for Thalassemia Patients and Plantation Drives.

The 5 pillars and respective societies are mentioned below:



### SZABIST Student Career Services & Alumni Relations

The office of Career Services and Alumni Relations work simultaneously to facilitate graduating students and Alumni, the core responsibility is to helps graduating students and alumni to launch and build their careers as public service leaders.

### SZABIST Student Career Services (SCS)

Student Career Services at SZABIST University Hyderabad campus facilitates students in completing their degree requirements, professional development, and job/internship placements.

Throughout academic tenure, the students are encouraged to attend customized trainings, personal development programs, webinars, corporate workshops, mock interviews and presentations by industry experts who share their experiences to help them understand the transition from campus to the corporate world.

The Office has developed a comprehensive and diverse program to ensure that students have a seamless transition from university life to the professional world as per their individual interests and aspirations.

Student Career Services compiles graduating students' profiles and publishes the annual graduate directory in order to provide SZABIST graduates to credible organizations.

### Job & Internship Placements

In collaboration with the industry, Student Career Services at SZABIST University arranges job/internship recruitment drives and management trainee programs by reputable national and multinational companies. SCS facilitates students for internships and job openings in the corporate sector throughout the year.

An annual "Career Fair" is held in the beginning of every year at the campus in which leading companies are invited to discuss their recruitment policies and procedures, their current resource requirements and future vacancies. The students receive an opportunity to interact with company representatives directly.

To bridge the gap between classroom and market, SZABIST University has instituted a mandatory internship program to fulfil the requirement according to the Higher Education Commission of Pakistan. Apart from enabling students to

get the feel of an office environment, internships expose them to potential employers for possible recruitment.

### **Eligibility for Internship**

- Masters Degree students with at least two semesters completed at SZABIST University.
- Bachelors degree students with at least six semesters completed at SZABIST University.
- Minimum duration of internship is six weeks.
- Preference is given to those students who are about to graduate and need an internship as a pre-requisite for their degree completion.

### Alumni Relations

The Alumni Relations Department at SZABIST University Hyderabad Campus plays a central role in fostering and maintaining strong connections between the university and its graduates. Committed to building a lifelong relationship with alumni, the department organizes various events, reunions, and networking opportunities to facilitate interactions among former students. Through these initiatives, the department aims to keep alumni informed about the university's developments, achievements, and ongoing projects. Additionally, the Alumni Relations Department actively seeks feedback from graduates to enhance the quality of education and services provided by SZABIST. A body with a name SZABIST Alumni Global Association (SAGA) is there to build strong bond with alumni. The vision of SAGA is "To empower the SZABIST Alumni for exploring new avenues and expanding knowledge for continuing their journey of self-discovery". By nurturing a sense of pride and belonging among alumni, the department contributes to the overall growth and reputation of the university, ensuring that graduates remain integral members of the SZABIST community long after their academic journey concludes.



### ZABSolutions

SZABIST has its own software house that fulfills the software needs of the SZABIST. The state-of-the-art applications that ZABSolutions has developed and evolved are successfully supporting and fueling the complete academic process of the SZABIST. The complete academic process flow of students from filling the online admission form to the printing of transcript and degree runs on ZAB LMS (ZAB Learning Management System).

Several educational institutions in Pakistan have shown their interest in ZAB LMS. The academic process of several institutions in Pakistan will soon be migrated onto our ZABLMS.

The ZABSolutions incubator help students foster their software skills. Students can access ZABSolutions' resources and knowledge to develop their skills and competencies, which are important to compete in the market. Following are the objectives of the incubator:

- 1. Provide a practical framework for knowledge and technology transfer to the students
- 2. Develop the confidence and competencies for building e-firms
- 3. Involve students in software research and development
- 4. Enhance partnership between industry and academia
- 5. Provide faculty and the students with innovative support facilities

### National and International Linkages and Collaborations

SZABIST is a registered member of the following international and national associations:

- 1. International Association of Universities (IAU), Paris
- 2. The Association to Advance Collegiate School of Business (AACSB), Singapore
- Asia-Pacific Quality Network (APQN), People's Republic of China
- 4. The Talloires Network, USA
- The Chartered Institute of Logistics and Transport (CILT), UK
- 6. Management Association of Pakistan (MAP), Karachi
- 7. Marketing Association of Pakistan (MAP), Karachi

Moreover, SZABIST has signed MoUs, articulation and collaboration agreements with the following national and international universities and institutions:

### 1. Association of Chartered Certified Accountants ACCA, UK

The MoU will provide exemption from ACCA papers to Bachelors of Business Administration and BS Accounting & Finance courses.

### 2. Balochistan Education Endowment Fund Scholarship, Pakistan

Under this MoU Government of Balochistan will be

proving fully funded scholarship to 5-6 meritorious and financially challenged students of SZABIST who are local domicile certificate holders of Balochistan. The scholarship will be for the complete duration of the degree program.

### 3. CISCO Networking Academy

SZABIST Karachi Campus is an authorized CISCO Network Academy to conduct IT-essentials, CCNA routing & switching, and CCNA security certifications.

### 4. Coventry University, UK

Through this MoU, SZABIST students enrolled in Bachelors of Arts in Business Studies (BABS) will be conferred Coventry University degree on completing two years of education at SZABIST and one year at Coventry University, UK.

### 5. Greenstar Social Marketing Limited (GSM),

Through this MoU SZABIST and GSM will work on the field of research pertaining to Family planning and child health

### 6. Ihsan Trust, Meezan Bank Pakistan

The MoU with Ihsan Trust is aimed at provision of Qarz-e-Hasna (Interest-free Loan) facility up to 50~% of tuition fee to SZABIST students.

### 7. Integration Xperts (Private) Limited, Pakistan

Integration Xperts (Private) Limited and SZABIST will do Joint Research and Development on Bio-Sciences Health Tech Solutions such as Mobile Diagnostics, Diabetes Management and Remote Health Monitoring of Infants and Old Age people.

### 8. Sindh Integrated Emergency and Health Services (SIEHS)

SIEHS and SZABIST University have joined hands to promote research, public awareness, capacity building, and student engagement in the field of emergency and health services.

### 9. Mitsubishi Corporation, Japan

Mitsubishi Corporation through this MoU would be Awarding scholarships to students enrolled in BSMS and BBA

#### 10. NOWPDP

NOWPDP a Disability Inclusion Initiative and SZABIST Karachi-BBA have joined hands for supporting initiatives for persons with disabilities in the province of Sindh. Both the parties will facilitate access to opportunities and services for persons with disabilities.

### 11. OPEN Organization of Pakistani Entrepreneurs of North America

SZABIST and OPEN Karachi Chapter will jointly establish student chapter to promote entrepreneurship and innovation among Pakistani youth by providing trainings, conducting workshops and seminars.

### 12. Orange Tree Foundation OTF, Pakistan

SZABIST collaborated with Orange Tree Foundation for providing scholarships for the students of SZABIST. This MoU ensures equitable opportunities of education for all the needy yet bright students. To bring them at par of mainstreaming through creating a critical mass of talented youth for the development of society.

### 13. Sindh Police Shaheed Scholarship

The MoU will enable children of Shaheed Police Officers of Sindh to study at SZABIST on scholarship. The MoU will be applicable to the Police employees who embraced SHAHADAT while performing their duty within the jurisdiction of the Sindh province.

### 14. Tabba Kidney Institute

SZABIST and Tabba Kidney Institute will participate in collaborative research and in capacity building activities and both will conduct academic research to get further insights into the areas of Urology. Students of Bachelor of Science in Public Health (BSPH) will get the opportunity of certificate-based volunteer work in TKI. To foster increased interaction among TKI research staff, SZABIST faculty and advanced / graduate students engaged in scientific and scholarly research in areas of mutual interest.

### 15. The Citizen Foundation, TCF Pakistan

As part of social responsibility, SZABIST and TCF have collaborated to facilitate TCF students with admission fee waiver, and scholarship opportunities to study in any of SZABIST degree programs.

### 16. The Chartered Institute of Logistics and Transport (CILT), UK

SZABIST has signed a MoA with CILT for introducing certification in logistics and transport. To attain this certification, a total of three mandatory courses will have to be completed.

### 17. University of London, UK

SZABIST is a registered center of University of London for giving tuitions for its LLB program.

#### 18. CIMA

SZABIST BSAF, BBA, BABS, BSENT, EMBA, and MBA (non-finance electives) students and alumni will be exempt from all 13 courses and will only attempt three case studies. MBA students with finance electives and BS (Accounting & Finance) alumni will be exempt from all 13 courses and operational-level case studies and will only attempt two case studies. BSAF students are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. Whereas, BSAF alumni will be exempted from all 13 courses and operational level case studies and will only attempt two case studies.

### 19. National Clearing Company of Pakistan Limited (NCCPL)

SZABIST and NCCPL commit to organize awareness sessions, recruit talented students and explore possibilities in relation to the development of Capital Market through Investor Education, Curriculum Development, and Jointly Holding of Conference/Seminar on Capital Markets.

### 20. Pathfinder

SZABIST and Pathfinder aim to collaborate, develop and launch innovation startups, learning hubs on ideas such as Reproductive health, Family Planning, Climate change and it's Impact on women. Students of Life Sciences and Social Sciences will be working to provide solutions for the above stated issues.

### 21. Health Services Academy

The potential areas of collaboration between both parties are; Internships and practicum for the MSPH students, Joint/Mutual Research programs, collaboration for funded Projects, Conferences, Seminars, Certificate and diploma programs, On-the-job research training programs, and Faculty development program.

### 22. Afzaal Memorial Thalassemia Foundation (AMTF)

SZABIST BABS Program will help the AMTF to conduct Blood Drives annually, for which all the resources will be arranged by AMTF. The Blood collected through Blood Drive will be used for the treatment of Thalassemia Patients.

### 23. Indus Hospital & Health Network (IHHN)

Through this MoU SZABIST and IHHN will make joint efforts to promote initiatives that aim to foster a sense of Social Responsibility among the students.

#### 24. The Hunar Foundation (THF)

An understanding is developed with The Hunar Foundation (THF) to be a CSR Partner for the BS Entrepreneurship Program. SZABIST BS Entrepreneurship Program students will facilitate THF in raising funds through fund-raising activities. THF may assign capstone projects to SZABIST Faculty of Management Science students in the areas of marketing, policy matters, research, and any other area. THF will participate in Job Fairs and Recruitment Drives of SZABIST.

### 25. GETZ Pharma & BIDE

GETZ Pharma, BIDE, and SZABIST joined hands to foster a culture of collaboration to improve healthcare indicators in Pakistan. It will allow experienced physicians, researchers, and students at BIDE and SZABIST in scientific research to generate valuable insights into the areas of NDCs, particularly Diabetes. The three patrons will also engage in activities centered on the capacity building of healthcare providers.

#### 26. FPCCI

FPCCI will effectively and professionally support SZABIST in its efforts to establish academic and research systems for addressing the challenges of national industry in terms of existing, emerging and future technologies.

### 27. Social, Entrepreneurship, and Equity Development (SEED) Ventures

Seed Ventures and SZABIST University will collaborate to conduct an entrepreneurship program aimed at fostering entrepreneurial skills and innovation.







PROSPECTUS 2024 17



### VISION

SZABIST Faculty of Management Sciences aspires to become one of the leading entities for excellence in business education, service, research and innovation.

### **MISSION**

SZABIST Faculty of Management Sciences is committed to:

- Produce highly qualified business professionals to meet dynamic and challenging contemporary needs;
- Generate knowledge and expertise for business and economic solutions through research;
- Create an enabling environment for corporate and entrepreneurial outlook;
- Serve the community through students, faculty, and alums.

### BBA

SZABIST offers a four-year (eight semesters) BBA degree program of 144 credit hours. This is SZABIST's flagship program. For the BBA program, students are required to complete 46 courses and 03 credit hours Business Project, a 03 credit hours Community Service Project and 03 credit hours Graded Internship. The students will take 4 Program Electives courses from Management, Marketing, Finance, or Supply Chain Management. To obtain the BBA degree, students have to complete 144 credit hours including a six week graded internship. Maximum time limit to complete the BBA degree is six years. BBA program is an ACCA accredited program; those who complete BBA from SZABIST, Hyderabad, will get an exemption in 06 out of 09 ACCA Foundation papers (F1, F2, F3, F5, F7 and F9). BBA students and alumni are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. BBA Program has been accredited by National Business Education Accreditation Council (NBEAC) and is also affiliated with Chartered Financial Analyst (CFA) Institute.

### First Year

### **Fall Semester**

BA 1108	IT in Business
BA 1109	Personal Management and
	Communication
BA 1203	Management Principles
BA 1206	Oral Communication and
	Presentation Skills
BA 1122	Islamic Studies / Humanities
BA 2313	Sociology
BA xxxx	Ideology and Constitution of Pakistan (2,0)

### **Spring Semester**

BA 1101	Introduction to Accounting
BA 1102	Microeconomics
BA 1105	English Writing Skills
BA 1204	Maths for Business
BA 2403	Business Ethics
BA 2312	Human Behavior

### Second Year

#### **Fall Semester**

Fall Seme	ester
BA 1201	Financial Accounting
BA 1211	Logic and Critical Thinking
BA 3504	Organizational Behavior
BA 2303	Marketing Principles
BA 1202	Macroeconomics
BA 2406	Business and Electronic Communication

### **Spring Semester**

BA 2311	Business Statistics
BA 2411	Cost and Management Accounting
BA xxxx	Natural Science Elective
	(as offered by Campus)
BA 3502	Entrepreneurship

BA 3507	Consumer Behavior
BA 4810	Community Service Project

### Third Year

### **Fall Semester**

I uli ociii	23121
BA 3501	Financial Markets and Institutions
BA 3508	Media Management
BA 3605	Statistical Inference
BA 4706	Development Economics
BA 2301	Introduction to Business Finance
BA xxxx	University Elective (as offered by Campus)

### **Spring Semester**

BA 3601	Financial Management
BA 3602	Marketing Management
BA 3603	Business Research Methods
BA 3607	Operations Management
BA 4804	Human Resource Management
BA 3630	Internship/Field Experience**

### **Fourth Year**

### Fall Semester

BA 2402	Retail Management
BA 3609	Pakistan Economy
BA 4705	Services Marketing
BA 4704	Management Information System
BA 4xxx	Program Elective-I
BA 4xxx	Program Elective-II

### **Spring Semester**

BA 3505	Quantitative Skills
BA 4710	Business Project
BA 4801	Law and Taxation
BA 4814	Project Management
BA 4xxx	Program Elective-III
BA 4xxx	Program Elective-IV

I INIIVED	CITY ELECTIVE	BA 4815	Event Management	
UNIVERSITY ELECTIVE		BA 4816	0	
(To be offered by the campus as Compulsory		BA 4821	Media Planning	
courses)		BA 4824	ě	
PA 2506	Foreign Languages	BA 4842	· ·	
BA 3506	Foreign Languages Current Affairs			
BA 3519		BA 4859	Product Innovation and Design	
BA 3613	,	BA 4866	Integrated Marketing Communications	
BA 3614	Business Analysis and Forecasting*	BA 4762	Digital Marketing	
BA 3619	Enterprise Management	BA 4868	Marketing Analytics	
BA 4701	Islamic Banking and Finance*	BA 4874	e-Commerce*	
BA 4707	Marketing Research*		7	
BA 3515	Graphic Design for Multimedia*		Chain Management	
BA 3621	Professional Development	BA 4116	Supply Chain Management	
BA 3521	Auditing	BA 4126	Trade Marketing	
BA 3522	Social Advocacy and Community Service	BA 4768	Total Quality Management	
BA 3622	e-Commerce*	BA 4739	Export Marketing	
BA 3523	Software Tools for Business*	BA 4742	Customer Relationship Management	
BA 4730	Fundamentals of Artificial Intelligence*	BA 4764	Dynamics of Logistics and Distribution	
		BA 4824	Sales Management	
Natural S	cience Electives	BA 4859	Product Innovation and Design	
(To be off	ered by the campus as Compulsory			
courses)		Managen	nent	
		BA 4116	Supply Chain Management	
BA 3623	Agricultural Science	BA 4117	Salary and Compensation	
BA 3624	Ecology	BA 4711	Change Management	
BA 3625	Environmental Science	BA 4712	Industrial Relations and Labor Laws	
BA 3626	Theory of Science	BA 4713	Leadership and Motivation Techniques	
	,	BA 4812		
Program Electives Finance		BA 4813	Training and Development	
	Derivatives	BA 4815		
BA 4214	Micro Finance	BA 4826	Talent Management	
	Financial Research	BA 4837		
BA 4735		BA 4844	Operations Research	
BA 4719	Investment Banking			
BA 4724	Financial Modeling	*Universi	ty Elective can be taken as an Elective if not	
BA 4727	<u> </u>		offered by the Campus as a compulsory course.	
BA 4752	Financial Reporting and Analysis	orrered b.	y une camp us us a compansory course.	
BA 4831	Portfolio and Investment Management	All cours	ses may not necessarily be offered every	
BA 4833	Security Analysis	year. Alternate Courses may be substituted as and		
BA 4834	Treasury and Funds Management	· ·		
BA 4855	Financial Risk Analysis	when required. Full time academic load is 18 credits		
BA 4867	Business Analysis and Forecasting*	hours. All students are required to register for full load in the first semester.		
	Fintech			
BA 4769 BA 4774		All Muslim undergraduate students (Fall 2024 intake		
DA 4//4	Alternative Investments		ards) would be required to clear BA 1210	
Marlastin			s of Holy Quran non-credit course to be or the degree.	
Marketin		eligible ic	or the degree.	
BA 4116	Supply Chain Management	**T1	hin/Eiold Evnovior co	
BA 4125	Emerging Media	**Internship/Field Experience		
BA 4126	Trade Marketing		ents will be required to complete a graded	
BA 4217	Experiential Marketing		p of minimum 6 weeks in 6th semester or in	
BA 4836	Marketing Research*		after the 6th semester or program relevant	
BA 4721	Advertising	field expe	erience of minimum 06 months duration to	

qualify for the degree.



BA 4722 Brand Management

BA 4739 Export Marketing

### **BS** Accounting & Finance

BS A&F is a four-year (eight semesters) program and consists of 144 credit hours of teaching. Students are required to complete 47 courses, 3 credit hours Capstone Project, and 3 credit hours graded internship to graduate. The maximum duration to complete this degree program is six years. Graduates of BS A&F will get exemptions in nine papers of both Institute of Chartered Accountants of Pakistan (ICAP) and Association of Chartered Certified Accountants (ACCA), UK. BS A&F students are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. Whereas, BS A&F alumni will be exempted from all 13 courses and operational level case studies and will only attempt two case studies.

### First Year

### **Fall Semester**

AF 1101 **Business Mathematics\*** AF 1102 Computer Concepts and Applications\* Introduction to Financial Accounting\* AF 1104 Ideology and Constitution of Pakistan \*\* AF 1108 AF 1109 English Comprehension & Oral Communication\* AF 1111 Islamic Studies/Humanities\*\*

Sociology\*\*

AF 1112

**Spring Semester** AF 1201 Advanced Financial Accounting\* AF 1211 Business Management\* AF 1213 Human Behavior AF 2301 Business and Technical English Writing\* AF 2405 Principles of Microeconomics\* AF xxxx Natural Science Elective\*\*\*

### Second Year

### **Fall Semester**

AF 1202 Calculus for Business Studies AF 1212 Essentials of Marketing AF 2302 Cost Accounting\* AF 3501 Accounting and Financial **Information Systems** AF 3505 Principles of Macroeconomics\* AF 4703 Introduction to Business Finance\*

### **Spring Semester**

AF 2401 Management Accounting AF 2404 Money and Banking AF 2406 Statistics and Probability\* AF 2409 Personal Management and Professional Development AF 2411 Entrepreneurship

AF 3503 Business Ethics

### Third Year

### **Fall Semester**

AF 3506 Statistical Inference AF 3507 Financial Institutes and Markets AF 3511 Auditing -I\* AF 3606 Taxation\* AF 3607 Corporate Accounting\* AF 3608 Islamic Banking and Finance

### **Spring Semester**

AF 2408 Business Analysis and Forecasting AF 3605 Financial Reporting\* AF 3609 **Business Research Methodologies** AF 3611 Auditing-II\* AF 4702 Financial Management Internship/Field Experience\*\*\*\* AF 4812

### Fourth Year

### **Fall Semester**

AF 2305 Organizational Behavior\* AF 4701 Business and Labor Law\* AF 4712 Capstone Project AF 4801 Corporate Finance AF 4xxx Finance/Accounting Elective-I AF 4xxx Finance/Accounting Elective-II

### **Spring Semester**

AF 4707 Company Law\* AF 4711 e-Commerce and Management Information System AF 4806 Human Resource Management AF 4807 Marketing of Financial Services AF 4xxx Finance/Accounting Elective-III AF 4xxx Finance/Accounting Elective-IV

PROSPECTUS 2024

### **PROGRAM ELECTIVES**

### **Accounting Major**

Ar 4/21	Advanced Addit and Assurance
AF 4722	Advanced Performance Managemen
AF 4723	Forensic Accounting
AF 4732	Tax Crime and Fraud Investigation
AF 4735	Accounting for Islamic Finance

AF 4821 Accounting for Islamic Finan AF 4821 Public Sector Accounting AF 4822 Strategic Business Reporting

AF 4831 Forensic Analytics AF 4835 Advanced Taxation

### Finance Major

A E 4504	A 1 1 T 1 1 1 1 1 4
AF 4724	Advanced Financial Management
AF 4725	Analysis of Investment and
	Management of Portfolios
AF 4726	Behavioral Finance
AF 4727	Dynamics of Banking
AF 4728	Financial Modeling
AF 4729	Financial Econometrics
AF 4731	Fraud and Risk Management in
	Financial Institutions
AF 4733	Alternative Investments
AF 4734	Financial Derivatives
AF 4823	Financial Risk Analysis
AF 4824	Financing of SME
AF 4825	International Finance
AF 4826	Quantitative Data Analysis
AF 4828	Treasury and Funds Management
AF 4829	Fintech
AF 4832	Financial Data Analytics
AF 4833	Investment Banking

Courses are subject to change.

\*\* 2 Credit Hours courses

### \*\*\* Proposed Natural Science Electives are:

AF 1116 Agricultural Science

AF 1117 Ecology

AF 1118 Environmental Science

AF 4834 Islamic Insurance-Takaful

AF 1119 Theory of Science

### \*\*\*\* Internship/Field Experience

The BSAF 4-Year students will be required to complete a graded internship of minimum 6 weeks in 6th semester or in summers after the 6th semester.

All Muslim undergraduate students (Fall 2024 intake and onwards) would be required to clear

AF1210 Teachings of Holy Quran noncredit course to be eligible for the degree.

All courses may not necessarily be offered every year. Alternate courses may be substituted as and when needed. Fulltime academic load is 18 credit hours. All students are required to register for full load in first semester.







### MBA Program

For students with 4-year undergraduate degree/16-years of education, the minimum duration of the MBA program is 2 years. Twenty-two courses (66 credit hours) and 6 credit hours of Research Project OR Thesis spread over two semesters (3+3) are required to complete the program. Students are also required to complete a six-week internship. The maximum duration to complete MBA program is 4 years. MBA Program is also accredited by National Business Education Accreditation Council (NBEAC).

MBA (non-finance electives) students and alumni are exempted from all 13 courses of Chartered Institute of Management Accountants (CIMA) qualification, and are only required to pass three case studies. MBA students with finance electives and alumni are exempted from all 13 courses and operational-level case studies and will only attempt two case studies.

### First Year

### **Fall Semester**

BA 5301 Financial Accounting\*

BA 5419 Business Management and Ethics\*

BA 5418 Managerial Communication\*

BA 5502 Quantitative Tools for Managers\*

BA 5302 Microeconomics\*

BA 5106 Marketing Management\*

### **Spring Semester**

BA 5402 Macroeconomics\*

BA 5205 Human Resources Management\*

BA 5411 Cost and Management Accounting\*

BA 5401 Introduction to Business Finance\*

BA 5405 Statistical Inference\*

BA 5501 Applied Research Methods

### **Second Year**

### **Fall Semester**

BA 5601 Strategic HRM

BA 5105 Financial Management\*

BA 5203 Strategic Marketing

BA 5xxx Program Elective-I

BA 5xxx Program Elective-II

BA 5508 Research Project-I (3 Credits) OR

BA 5507 Thesis-I (3 Credits)

### **Spring Semester**

BA 5104 Strategic Management

BA 5208 Strategic Finance

BA 5308 International Business

BA 5xxx Program Elective-III

BA 5xxx Program Elective-IV

BA 5608 Research Project - II (3 Credits)

BA 5607 OR Thesis-II (3 Credits)

\* Exempted courses for BBA and Equivalent degree holders.

The students with 4-year BBA/BABS/BS (Accounting & Finance)/BS (Entrepreneurship) or equivalent degree are exempted 36 credit hours of course work. The minimum duration of degree for such students will be 1.5-year with the following program structure:

### First Year

### **Fall Semester**

BA 5501 Applied Research Methods

BA 5203 Strategic Marketing

BA 5601 Strategic HRM

BA 5208 Strategic Finance

### Spring Semester

BA 5104 Strategic Management

BA 5xxx Program Elective-I

BA 5xxx Program Elective-II

BA 5508 Research Project-I (3 Credits) Or

BA 5507 Thesis-I (3 Credits)

### Second Year

#### Fall Semester

BA 5308 International Business

BA 5xxx Program Elective-III

BA 5xxx Program Elective-IV

BA 5608 Research Project-II (3 Credits) Or

BA 5607 Thesis-II (3 Credits)

All courses may not be offered in every semester.

Alternative courses may be substituted as and when required.

A studen	t may take either Research Project or	BA 5196	Conflict Resolution
Thesis.	a may tune emile research respect of		Recruitment and Selection
11100101			Training and Development
Student may take any of Level-5 electives from			HR Policy Development
the Faculty of Management Sciences except			Human Resource Development
			Performance Management
Project Management Electives, subject to the			HR Analytics
prior approval of the Program Manager.			
PROGRAM ELECTIVES		DA 3297	Human Capital Development
Finance		BA 5335	and Analytics Human Resource Audit
	Analysis of Financial Statements		
		DA 3332	Contemporary Issues in Human
	Corporate Finance Derivatives	DA E42E	Resource Management
		DA 3433	Human Resource Management and
	Financial Markets and Institutions	D 4 5450	Technology
	Econometrics	BA 5452	Psychological Contract in Organiza
	Financial Risk Analysis		tions
	International Finance	BA 5456	Leadership in Practice
	Mergers and Acquisitions		
	Commodity Pricing	Managei	
	Business Analysis and Forecasting		Business Process Re-engineering
	Financial Modeling		Change Management
BA 5232	Portfolio and Investment Management	BA 5116	Industrial Relations and Labor Laws
BA 5262	Behavioral Finance	BA 5136	Business Strategy and Policy
BA 5294	Venture Capital and Private Equity	BA 5172	Entrepreneurial Business Strategy
	Financial Reporting and Analysis	BA 5213	Project Management
	Real Estate Investments and Finance		Crisis Management
BA 5349	FinTech		Corporate Sustainability
BA 5459	Islamic Capital and Money Markets		Lean Six Sigma Manufacturing
	1		Hospitality and Tourism Management
Banking			Business Theory
	Theory and Practice of Lending		Business Application
	International Banking		
	Banking Operations	Rusiness	s Analytics
	Financial Product Regulations		Business Data Visualization
	Treasury and Funds Management		Business Intelligence and
	Investment Banking	DA 5101	Data Warehousing
		BA 5226	
	Prudential Regulations		Data Analytics for Business
BA 5278	0	DA 3436	Business Intelligence Tools for
BA 5358	Applied Islamic Banking and Finance	D 4 F2F0	Managers
	2	BA 5359	Digital Analytics & Consumer Insights
	Resource Management		
	Leadership and Motivation Techniques	Marketii	
	Compensation Management		Advertising
	Salary and Compensation		Brand Management
	Human Resources Information Systems		Consumer Behavior
	Job Analysis and Design		Customer Relationship Management
BA 5167	Talent Management and		Services Marketing
	Succession Planning	BA 5182	Trade Marketing
BA 5185	Leadership Development	BA 5186	Social Marketing
	HR Operations and Business Partner-	BA 5217	Industrial Marketing

BA 5224	Media Planning and Management
BA 5226	Pharmaceutical Marketing
BA 5227	Sales Management
BA 5228	Retail Management
BA 5246	Public Relations
BA 5256	<b>Integrated Marketing Communications</b>
BA 5259	
BA 5264	Interactive Global and Regional
	Marketing
BA 5269	Marketing Intelligence
BA 5281	Digital Marketing
BA 5293	New Product Development
	Process and Innovation
BA 5198	Experiential and Content Marketing
BA 5438	Marketing Practices in Pakistan
BA 5331	Marketing Analytics
BA 5339	Packaging for Brands
BA 5337	
BA 5437	Retail Supply Chain Management
BA 5436	Retail Operations
BA 5336	Retail Buying and Merchandising
BA 5451	Strategic Entrepreneurship
BA 5355	Marketing Strategies for Emerging
	Economies

### **Supply Chain Management (SCM)**

BA 5457 Advanced Manufacturing and TPM in SCM
BA 5194 Supply Chain Finance

BA 5263 Dynamics of Logistics and Distribution BA 5265 Operational Planning in Supply Chain

BA 5266 Strategic Procurement in SCM  $\,$ 

BA 5287 Execution and Control of Operations in SCM

BA 5142 Materials Management

BA 5432 Green Supply Chain Management

BA 5431 Supply Chain Operations

BA 5449 Strategic Warehouse Management

BA 5439 Green Logistics

BA 5237 Demand Planning and Forecasting in Supply Chain

BA 5144 Distribution and Supply Chain Network Design

BA 5356 International Trade Procedures and Practices

BA 5143 Digital Supply Chain

Non-Credit Hours Course

BA 5110 Software Tools for Business

### Internship

All MBA students are required to complete a 6-week internship. Completion of internship is a degree requirement for all MBA programs. Students can produce their current employment record as an alternative to the internship program provided such employment experience is recognized by SZABIST.







PROSPECTUS 2024 — 25

### FACULTY OF MANAGEMENT SCIENCES

#### Master of Science in Management Sciences

There are two streams available for Master of Science in Management Sciences. One Stream is by Course Work and other one is by Research Work. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In the Research Work Stream, the student is required to complete 8 Courses and Two IRS OR one Thesis of Six credit hours. In both the streams, 30 credit hours are to be completed. The time limit to earn an MS degree is from 1.5 to 4 years. The detail of two streams is as follows:

#### 1. MS By Course Work Stream

The Scheme of Study is as follows:

- Six Compulsory Courses
- Four Program Electives
- No IRS or Thesis

#### Compulsory Courses

MS 5137	Research Methods and Techniques
MS 5204	Quantitative Tools for Research
MS 5132	Applied Strategic Management
MS 5104	Strategic Marketing Decisions
MS 5318	Strategic Finance
MS 5238	Strategic Human Resource Development

Program Electives (Program Electives in any of following areas subject to the offering of Course)

- Finance
- Marketing
- Human Resource Management
- Business Analytics

#### First Year

#### Fall Semester MS 5137 Research Methods and Tachniques

1013 3137	Research Methous and Techniques
MS 5132	Applied Strategic Management
MS 5238	Strategic Human Resource Development
MS 5104	Strategic Marketing Decisions

#### Spring Semester

MS 5204	Quantitative Tools for Research
MS 5318	Strategic Finance
MS 5xxx	Program Elective I
MS 5xxx	Program Elective II

#### Second Year

#### **Fall Semester**

MS 5xxx	Program Elective III
MS 5xxx	Program Elective IV

#### 2. MS By Research Work Stream

The Scheme of Study is as follows:

- Six Compulsory Courses
- Two Program Electives
- Two IRS OR Thesis

#### **Compulsory Courses**

	<i>y</i>
MS 5137	Research Methods and Techniques
MS 5204	Quantitative Tools for Research
MS 5132	Applied Strategic Management
MS 5104	Strategic Marketing Decisions
MS 5318	Strategic Finance
MS 5238	Strategic Human Resource Development

Program Electives (Program Electives in any of following areas subject to the offering of Course)

- Finance
- Marketing
- Human Resource Management
- Business Analytics

#### First Year

#### **Fall Semester**

MS 5137	Research Methods and Techniques
MS 5132	Applied Strategic Management
MS 5238	Strategic Human Resource Development
MS 5104	Strategic Marketing Decisions

#### Spring Semester

MS 5204	Quantitative Tools for Research
MS 5318	Strategic Finance
MS 5xxx	Program Elective I
MS 5xxx	Program Elective II

#### Second Year

#### **Fall Semester**

MS 5xxx	IRS I and IRS II OR
MS 5xxx	Thesis (Part I)

#### **Spring Semester**

MS 5xxx Thesis (Part II) If Any

# **FACULTY OF MANAGEMENT SCIENCES**

Finance MS 5113 Financial Time Series MS 5135 Managerial Economics MS 5105 Econometrics MS 5105 Econometrics MS 5115 Operations and Mathematical Modeling MS 5115 Operations and Mathematical Modeling MS 5116 Operations and Mathematical Modeling MS 5121 Operators Finance MS 5210 Corporate Finance MS 5210 Corporate Finance Alpolications MS 5211 Corporate Finance Planning and Decisions MS 5212 Financial Markets MS 5212 Corporate Finance Planning and Decisions MS 5218 Financial Markets MS 5212 Capital Asset Pricing Model MS 5421 Capital Asset Pricing Model MS 5422 Empirical Asset Pricing Model MS 5425 Empirical Asset Pricing Model MS 5426 Mathematical Modeling in Finance MS 5426 Mathematical Modeling in Finance MS 5427 Financial Modeling in Finance MS 5428 Financial Modelling with Software MS 5430 Financial Modelling with Software MS 5440 Financial Modelling in Finance MS 5451 Financial Modelling in Finance MS 5452 Financial Modelling in Finance MS 5453 Financial Modelling with Software MS 5454 Financial Modelling with Software MS 5455 Distribution and Channel Management MS 5457 Financial Modelling with Software MS 5458 Financial Modelling with Software MS 5459 Financial Management MS 5450 Financial Modelling with Software MS 5451 Financial Management MS 5452 Financial Modelling with Software MS 5450 Financial Ma				
Finance MS 5113 Financial Time Series MS 5103 Managerial Economics MS 5105 Derivatives and Financial Risk MS 5115 Derivatives and Financial Risk MS 5115 Departions and Mathematical Modeling MS 5114 Behavioral Finance MS 5217 Corporate Finance MS 5217 Corporate Finance Planning and Decisions MS 5218 Financial Markets MS 5218 Finance Almolecision Making MS 5218 Finance Planning and Decision Making MS 5217 Experience Almolecision Making MS 5218 Finance Planning and Decision Making MS 5218 Finance Planning and Decision Making MS 5218 Finance Planning and Decision Making MS 5218 Finance Planning Model MS 5210 Capital Asset Pricing Model MS 5210 Empirical Asset Pricing Model MS 5410 Applied Econometrics MS 5411 Applied Econometrics MS 5412 Islamic Banking and Finance MS 5412 Islamic Banking and Finance MS 5421 Elamic Banking and Finance MS 5422 Islamic Banking and Finance MS 5423 Financial Modeling in Finance MS 5424 State Financial Modeling in Finance MS 5435 Pinancial Modeling with Software MS 5430 Financial Modeling with Software MS 5430 Seninars in Marketing MS 5430 Seninars in Marketing MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Entrepreneurial Marketing MS 5433 Advertising Research MS 5434 Advertising Research MS 5435 Digital Marketing and Social Media MS 5436 Digital Marketing and Forecasting MS 5437 Strategic Fore fore fore fore fore fore fore fore f	PROGR/	AM ELECTIVES	MS 5415	NGO Management
Finance MS 5103 Managerial Economics MS 5103 Managerial Economics MS 5104 Semonetrics MS 5105 Econometrics MS 5105 Corporater Finance MS 5216 Operations and Mathematical Modeling MS 5115 Operations and Mathematical Modeling MS 5216 Modern Financial Applications MS 5217 Corporate Finance Planning and Decisions MS 5217 Corporate Finance Planning and Decisions MS 5218 Financial Markets MS 5219 Business Finance and Decision Making MS 5210 Seminars in Finance MS 5211 Capital Asset Pricing Model MS 5421 Capital Asset Pricing Model MS 5422 Mathematical Modeling in Finance MS 5423 Mathematical Modeling in Finance MS 5424 Mathematical Modeling in Finance MS 5425 Financial Modeling in Finance MS 5426 Mathematical Modeling in Finance MS 5427 Seminars in Finance MS 5428 Financial Modeling in Finance MS 5429 Financial Modeling in Finance MS 5420 Mathematical Modeling in Finance MS 5421 Financial Modeling in Finance MS 5422 Mathematical Modeling in Finance MS 5423 Financial Modeling in Finance MS 5424 Mathematical Modeling in Finance MS 5425 Financial Marketing MS 5427 Seminars in Finance MS 5428 Financial Modeling in Finance MS 5429 Financial Modeling in Finance MS 5420 Financial Modeling in Finance MS 5420 Financial Modeling in Finance MS 5420 Financial Modeling in Finance MS 5421 Financial Modeling in Finance MS 5422 Mathematical Modeling with Software MS 5423 Financial Modeling with Software MS 5430 Financial Modeling with Software MS 5431 Strategic Brand Management MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5430 Strategic Social Marketing MS 5430 Financial Marketing MS 5430 Clobal Marketing and Social Media MS 5431 Strategic Brand Management MS 5432 Corporate Strategy and Forecasting MS 5433 Corporate Strategics MS 5434 Strategic Social Marketing MS 5435 Corporate Strategics MS 5436 Market Strategy and Forecasting MS 5437 Strategic Social Marketing MS 5438 Proplied Time Series Analytics MS 5440 Data Management MS 5451 Analytics MS 5460 Polical Marketing MS 5452 Strategic Social Marketing MS 5453				O
MS 5103 Managerial Economics MS 5105 Econometrics MS 5111 Derivatives and Financial Risk MS 5115 Depretations and Mathematical Modeling MS 5134 Behavioral Finance MS 5215 Corporate Finance Planning and MS 5215 Corporate Finance Planning and MS 5217 Corporate Finance Planning and MS 5218 Financial Markets MS 5218 Financial Markets MS 5218 Financial Markets MS 5218 Finance and Decision Making MS 5414 Applied Econometrics MS 5412 Capital Asset Pricing Model MS 5415 Empirical Asset Pricing MS 5416 Mathematical Modeling in Finance MS 5417 Salva Mathematical Modeling in Finance MS 5418 Fined-Data Science for Finance MS 5419 Financial Marketing MS 5420 Applied Time Series Analysis and Forecasting With Software MS 5430 Mathematical Modeling in Finance MS 5431 Stategic Social Science for Finance MS 5445 Market Strategy and Forecasting MS 5446 Market Strategy and Forecasting MS 5447 Marketing MS 5448 Management MS 5449 Financial Modelling with Software MS 5450 Distribution and Channel Management MS 5421 Strategic Social Marketing MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Digital Marketing and Analytics Marketing MS 5440 Market Strategy and Forecasting MS 5451 Distribution and Channel Management MS 5441 Marketing Marketing MS 5442 Strategic Social Marketing MS 5443 Strategic Social Marketing MS 5444 Strategic Social Marketing MS 5455 Digital Marketing Strategies MS 5456 Digital Marketing Analytics MS 5467 Market Strategy and Forecasting MS 5468 Market Strategy and Forecasting MS 547 Strategic Social Marketing MS 548 Strategic Social Marketing MS 549 Financial Modelling with Software MS 540 Market Strategy and Forecasting MS 5410 Marketing Ms 5410 Marketing MS 5420 Market Strategy and Forecasting MS 5431 Strategic Social Marketing MS 5440 Market Strategy and Forecasting MS 5451 Market Management MS 5452 Market Management MS 5453 Market Management MS 5454 Maraket Management MS 5455 Digital Marketing Ms favore Marketing MS	Finance			
MS 5105 Econometrics MS 5111 Derivatives and Financial Risk MS 5113 Operations and Mathematical Modeling MS 5134 Behavioral Finance MS 5215 Corporate Finance Planning and Decisions MS 5216 Corporate Finance Planning and Decisions MS 5217 Entance Planning and Decisions MS 5218 Financial Markets MS 5227 Entance MS 5227 Explications MS 5219 Financial Markets MS 5227 Empirical Asset Pricing Model MS 5425 Empirical Asset Pricing Model MS 5426 Mathematical Modeling in Finance MS 5412 Islamic Banking and Finance MS 5426 Mathematical Modeling in Finance MS 5427 Expressions MS 5428 Financial Modeling with Software MS 5439 Seminars in Marketing MS 5440 Salva Sal	MS 5113	Financial Time Series		
MS 5105 Econometrics MS 5111 Derivatives and Financial Risk MS 5113 Operations and Mathematical Modeling MS 5134 Behavioral Finance MS 5215 Corporate Finance Planning and Decisions MS 5216 Corporate Finance Planning and Decisions MS 5217 Entance Planning and Decisions MS 5218 Financial Markets MS 5227 Entance MS 5227 Explications MS 5219 Financial Markets MS 5227 Empirical Asset Pricing Model MS 5425 Empirical Asset Pricing Model MS 5426 Mathematical Modeling in Finance MS 5412 Islamic Banking and Finance MS 5426 Mathematical Modeling in Finance MS 5427 Expressions MS 5428 Financial Modeling with Software MS 5439 Seminars in Marketing MS 5440 Salva Sal	MS 5103	Managerial Economics	Business	Analytics
MS 5111 Derivatives and Financial Risk MS 5115 Operations and Mathematical Modeling MS 5116 Modern Finance MS 5206 Modern Financial Applications MS 5127 Corporate Finance MS 5217 Corporate Finance Planning and Decisions MS 5428 Financial Markets MS 5218 Financial Markets MS 5218 Financial Markets MS 5218 Financial Markets MS 5218 Financial Markets MS 5410 Seminars Finance and Decision Making MS 5411 Capital Asset Pricing Model MS 5422 Capital Asset Pricing MS 5426 Mathematical Modeling in Finance MS 5427 Mathematical Modeling in Finance MS 5428 Mathematical Modeling in Finance MS 5449 Marketing MS 5450 Market Strategy and Forecasting MS 5451 Strategic Brand Management MS 5420 Distribution and Channel Management MS 5421 Strategic Social Marketing MS 5422 Distribution and Channel Management MS 5431 Strategic Strategics MS 5432 Strategic Social Marketing MS 5433 Marketing Marketing and Social Media MS 5434 Behavioral Marketing MS 5435 Usesser Management MS 5436 Digital Marketing Strategics MS 5437 Dissater Management MS 5438 Marketing MS 5439 Distribution Networks MS 5430 Digital Marketing Strategics MS 5430 Distribution Networks MS 5431 Strategic Strategy MS 5434 Behavioral Marketing MS 5435 Usesser Relations Management MS 5436 Performance Management MS 5437 Dissater Management MS 5439 Distribution Networks MS 5440 Marketing MS 5451 Strategics for Managing Supply Chain Management MS 5451 Strategic Social Marketing MS 5452 Digital Marketing and Social Media MS 5453 Usesser Relations Management MS 5454 Market Strategy and Forecasting MS 5455 Decision Support System MS 5466 Performance Management MS 5470 Strategics for Management MS 5471 Strategics for Management MS 5472 Distribution Networks MS 5473 Strategics for Management MS 5475 Distribution Networks MS 5475 Distribution Networks MS 5476 Performance Management MS 5470 Strategics for Management MS 5470 Strategics for Management MS 5470 Strategics for Management MS 5471 Strategics for Management MS 5472 Distribution Networks MS 5475 Distribution Networks MS 5475		O		
MS 5115 Operations and Mathematical Modeling MS 5126 Modern Finance MS 5217 Corporate Finance MS 5218 Finance Planning and Decisions MS 5218 Finance Planning and Decisions MS 5219 Finance Planning and Decisions MS 5219 Plannace Planning and Decisions MS 5210 Plannace Planning and Decisions MS 5210 Plannace Planning and Decisions MS 5211 Plannace Planning and MS 5225 Plannace Planning and MS 5226 Plannace Planning and MS 5227 Plannace MS 5228 Plannace and Decision Making MS 5229 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5420 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5420 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5420 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5420 Plannace MS 5421 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5420 Plannace MS 5421 Plannace MS 5420 Plannace MS 5421 Plannace MS 5422 Plannace MS 5422 Plannace MS 5423 Plannace MS 5424 Plannace MS 5425 Plannace MS 5426 Plannace MS 5427 Plannace MS 5428 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5429 Plannace MS 5420 Plannace MS 5420	MS 5111	Derivatives and Financial Risk		
MS 5134 Behavioral Finance MS 5205 Modern Finance MS 5417 Corporate Finance Planning and Decisions MS 5218 Financial Markets MS 5218 Financial Markets MS 5218 Financial Markets MS 5219 Empirical Asset Pricing Model MS 5410 Capital Asset Pricing Model MS 5421 Capital Asset Pricing Model MS 5422 Empirical Asset Pricing MS 5423 Seminars in Finance MS 5424 Mathematical Modeling in Finance MS 5425 Market Strategic MS 5465 Market Strategic MS 5466 Prinancial Modelling with Software MS 5467 Financial Marketing MS 5468 Market Strategic MS 5469 Risk Management MS 5469 Risk Management MS 5470 Digital Marketing and Social Media MS 5480 Market Strategy and Forecasting MS 5481 Seminars in Marketing MS 5482 Slobal Marketing MS 5483 Market Management MS 5493 Market Strategic Social Marketing MS 5494 Strategic Social Marketing MS 5495 Market Strategy and Forecasting MS 5496 Prinancial Modelling with Software MS 5497 Marketing MS 5498 Market Strategy and Forecasting MS 5498 Market Strategy and Forecasting MS 5499 Market Strategy and Forecasting MS 5490 Market Strategics MS 5490 Market Strategy and Forecasting MS 5490 Market Strategics MS 5490 Market Strategy and Forecasting MS 5490 Market Strategy and Fo	MS 5115	Operations and Mathematical Modeling	MS 5454	
MS 5215 Corporate Finance Planning and Decisions Forecasting With Software Financial Markets MS 5418 Empirical Asset Pricing Model Empirical Asset Pricing Model MS 5421 Capital Asset Pricing Model Seminars in Finance MS 5426 Mathematical Modeling in Finance MS 5426 Mathematical Modeling in Finance MS 5427 Market Financial Modeling in Finance MS 5428 Management MS 5436 Digital Marketing and Social Media MS 5436 Digital Marketing and Social Media MS 5436 Market Strategy and Forecasting With Software MS 5431 Strategic Entrepreneurial Marketing MS 5435 Decision Support System MS 5436 Performance MS 5431 Strategic Social Marketing MS 5439 Disaster Management MS 5431 Strategic Social Marketing MS 5430 Strategic Entrepreneurial Marketing MS 5431 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Strategic Social Marketing MS 5435 Disaster Management MS 5430 Distribution and Channel Management MS 5430 Strategic Social Marketing MS 5430 Digital Marketing MS 5430 Distribution Networks Market	MS 5134	Behavioral Finance		0
MS 5217 Corporate Finance Planning and Decisions  MS 5218 Ifinancial Markets  MS 5218 Business Finance and Decision Making MS 5414 Applied Econometrics MS 5425 Capital Asset Pricing Model MS 5425 Capital Asset Pricing Model MS 5426 Empirical Asset Pricing Model MS 5427 Empirical Asset Pricing MS 5428 Empirical Asset Pricing MS 5429 Empirical Asset Pricing MS 5420 Empirical Asset Pricing MS 5421 Empirical Asset Pricing MS 5425 Empirical Asset Pricing MS 5426 Mathematical Modeling in Finance MS 5427 Elimeteh/Data Science for Finance MS 5428 Retailing and Analytics MS 5429 Marketing MS 5430 Customer Relations Management MS 5430 Seminars in Marketing MS 5440 Retailing and Analytics MS 5440 Retailing and Analytics MS 5445 Decision Support System MS 5450 Disaster Management (GIS) MS 5440 Management MS 5441 Management MS 5442 Distribution and Channel Management MS 5442 Strategic Social Marketing MS 5443 Strategic Social Marketing MS 5445 Strategic Social Marketing MS 5445 Decision Support System MS 5446 Retailing and Analytics MS 5446 Management/HRM MS 5446 Management (GIS) MS 5447 Disaster Management MS 5448 HR Analytics MS 5449 Strategic Social Marketing MS 5449 Retailing and Management MS 5440 Management MS 5446 Performance Management MS 5440 Performance Management MS 5441 Strategic Social Marketing MS 5442 Strategic Social Marketing MS 5443 Advanced Warehouse, Stores and Material Management MS 5445 Distribution Networks  MS 5446 Strategic Social Marketing MS 5447 Disaster Management MS 5448 Distribution Networks  MS 5449 Retailing and Analytics MS 5446 Retailing and Management MS 5446 Management MS 5458 Distribution Nanagement MS 5469 Risk Management MS 5466 Retailing and Analytics MS 5467 Disaster Management MS 5468 Performance Management MS 5449 Distribution Nanagement MS 5441 Strategies for Management MS 5441 Strategies for Management MS 5442 Organizational Development MS 5464 Performance Management MS 5465 Performance Management MS 5465 Performance Management MS 5466 Performance Management MS 5467 Disaster Man	MS 5206	Modern Financial Applications	Finance	
Decisions  K5 5218 Financial Markets  Business Finance and Decision Making  K5 5218 Financial Markets  Business Finance and Decision Making  K5 5414 Applied Econometrics  MS 5425 Empirical Asset Pricing  MS 5426 Digital Marketing and Social Media  MS 5437 Seminars in Finance  MS 5437 Seminars in Finance  MS 5446 Marketting and Analytics  MS 5450 Market Strategy and Forecasting  MS 5451 Seminars in Finance  MS 5461 Finetch/Data Science for Finance  MS 5462 Applied Time Series Analysis and Forecasting With Software  MS 5463 Applied Time Series Analysis and Forecasting With Software  MS 5464 Management  MS 5455 Decision Support System  MS 5465 Management (GIS)  MS 5466 Performance Management  MS 5470 Strategic Brand Management  MS 5481 Strategic Brand Management  MS 5492 Strategic Social Marketing  MS 5493 Advertising Research  MS 5494 Strategic Entrepreneurial Marketing  MS 5495 Digital Marketing Strategies  MS 5496 Performance Management  MS 5497 Strategic Social Marketing  MS 5497 Strategic Social Marketing  MS 5498 Distribution Networks  MS 5499 Risk Management  MS 5468 Risk Management  MS 5468 Retailing and Analytics  MS 5469 Porformance Management (GIS)  MS 5406 Performance Management  MS 5410 Strategic Social Marketing  MS 5421 Strategics for Managing Supply Chain  MS 5431 Strategic Social Marketing  MS 5431 Strategic Social Marketing  MS 5445 Advanced Warehouse, Stores and  Material Management  MS 5469 Risk Management  MS 5460 Porformance Management  MS 5470 Strategics Social Marketing  MS 5471 Strategics or Management  MS 5480 Performance Management  MS 5491 Strategics Social Marketing  MS 5492 Green Supply Chain Management  MS 5493 Distribution Networks  All courses may not necessarily be offered every year.  Alternate courses may be substituted as and when required.  Fine Courses may not necessarily be offered every year.  Alternate courses may be substituted as and when required.  Fine Course of the Cours	MS 5215	1	MS 5461	
Decisions   Forecasting With Software	MS 5217	Corporate Finance Planning and	MS 5452	Applied Time Series Analysis and
MS 5237 Business Finance and Decision Making MS 5414 Applied Econometrics MS 5425 Capital Asset Pricing Model MS 5425 Empirical Asset Pricing MS 5426 Empirical Asset Pricing MS 5427 Empirical Asset Pricing MS 5428 Mathematical Modeling in Finance MS 5412 Islamic Banking and Finance MS 5412 Islamic Banking and Finance MS 5413 Applied Time Series Analysis and Forecasting With Software MS 5460 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5460 Risk Management MS 5470 Distribution and Channel Management MS 5481 Strategic Brand Management MS 5421 Strategic Entrepreneurial Marketing MS 5422 Marketing Metrics MS 5432 Strategic Entrepreneurial Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Decision Support System MS 5460 Performance Management (GIS) MS 5460 Performance Management MS 5470 Distribution and Channel Management MS 5471 Strategics for Managing Supply Chain MS 5471 Strategics for Managing Supply Chain MS 5471 Strategics for Management MS 5472 Green Supply Chain Management MS 5473 Advertising Research MS 5474 Digital Marketing MS 5475 Distribution Networks Advertising Research MS 5485 Distribution Networks Advertising Research MS 5486 Retailing and Analytics All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Furnam Resource Management MS 5400 Organizational Development Organizational Developmen				
MS 5414 Applied Econometrics MS 5421 Capital Asset Pricing Model MS 5422 Empirical Asset Pricing MS 5426 Mathematical Modeling in Finance MS 5427 Mathematical Modeling in Finance MS 5428 Mathematical Modeling in Finance MS 5429 Islamic Banking and Finance MS 5440 Mathematical Modeling in Finance MS 5441 MS 5442 Islamic Banking and Finance MS 5442 Applied Time Series Analysis and Forecasting With Software MS 5449 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5450 Marketing MS 5460 Ranagement Models MS 5451 Decision Support System MS 5461 Management Models MS 5462 Management Models MS 5463 HR Analytics Marketing MS 5464 Performance Management MS 5465 Performance Management MS 5420 Distribution and Channel Management MS 5421 Strategic Brand Management MS 5422 Distribution and Channel Management MS 5423 Strategic Entrepreneurial Marketing MS 5426 Strategic Social Marketing MS 5430 Strategic Social Marketing MS 5431 Marketing Metrics MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Distribution Networks MS 5436 Distribution Networks MS 5437 Strategics for Management MS 5438 Distribution Networks MS 5449 Market Strategy and Forecasting MS 5450 Distribution Networks MS 5451 Distribution Networks MS 5452 Green Supply Chain Management MS 5453 Distribution Networks MS 5454 Distribution Networks MS 5455 Distribution Networks MS 5456 Narket Strategy and Forecasting MS 5461 Management MS 5462 Green Supply Chain Management MS 5463 Advertising Research MS 5464 Management MS 5465 Market Strategy and Forecasting MS 5466 Performance Management MS 5467 Disaster Management MS 5468 Performance Management MS 5471 Strategies for Management MS 5472 Strategies for Management MS 5473 Strategies for Management MS 5473 Strategies for Management MS 5474 Advanced Warehouse, Stores and Material Management MS 5475 Disaster Management MS 5478 Distribution Networks MS 5479 Disaster Management MS 5479 Strategies for Mana			MS 5469	
MS 5421 Capital Asset Pricing Model MS 5425 Empirical Asset Pricing MS 5456 Digital Marketing and Social Media MS 5426 Mathematical Modeling in Finance MS 5426 Mathematical Modeling in Finance MS 5426 Islamic Banking and Finance MS 5417 Islamic Banking and Finance MS 5420 Finitech/Data Science for Finance MS 5421 Applied Time Series Analysis and Forecasting With Software MS 5422 Financial Modelling with Software MS 5439 Financial Modelling with Software MS 5449 Financial Modelling with Software MS 5440 Financial Modelling with Software MS 5441 Strategic Brand Management MS 5442 Distribution and Channel Management MS 5421 Strategic Brand Management MS 5422 Distribution and Channel Management MS 5423 Strategic Entrepreneurial Marketing MS 5431 Strategic Entrepreneurial Marketing MS 5432 Global Marketing Marketing MS 5433 Advertising Research MS 5434 Advertising Research MS 5435 Advertising Research MS 5436 Decision Support System MS 5460 Performance Management MS 5470 Disaster Management MS 5471 Strategies for Management MS 5472 Strategies for Management MS 5473 Advanced Warehouse, Stores and Material Management MS 5474 Advanced Warehouse, Stores and Material Management MS 5475 Distribution Networks MS 5476 Green Supply Chain Management MS 5477 Strategies for Management MS 5478 Distribution Networks MS 5479 Distribution Networks MS 5479 Distribution Networks MS 5470 Strategic Formance Management MS 5471 Strategies for Management MS 5472 Strategies for Management MS 5473 Customer Relations Management MS 5474 Strategies for Management MS 5475 Distribution Networks MS 5476 Distribution Networks MS 5477 Strategies for Management MS 5478 Distribution Networks MS 5479 Strategies for Management MS 5470 Green Supply Chain Management MS 5471 Strategies for Management MS 5472 Strategies for Management MS 5473 Strategies for Management MS 5474 Strategies for Management MS 5475 Distribution Networks MS 5476 Distribution Networks MS 5478 Distribution Networks MS 5479 Strategies for Management MS 5470 Green Supply Chain Manage			MS 5459	Financial Modelling with Software
MS 5425 Empirical Asset Pricing MS 5317 Seminars in Finance MS 5426 Mathematical Modeling in Finance MS 5412 Islamic Banking and Finance MS 5421 Islamic Banking and Finance MS 5422 Islamic Banking and Finance MS 5425 Applied Time Series Analysis and Forecasting With Software MS 5469 Risk Management MS 5469 Risk Management MS 5459 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5450 Decision Support System MS 5461 MANAGEMENT MAN				
MS 5317 Seminars in Finance MS 5426 Mathematical Modeling in Finance MS 5426 Mathematical Modeling in Finance MS 5427 Islamic Banking and Finance MS 5431 Fintech/Data Science for Finance MS 5442 Applied Time Series Analysis and Forecasting With Software MS 5452 Forecasting With Software MS 5469 Risk Management MS 5469 Financial Modelling with Software MS 5479 Financial Modelling with Software MS 5480 Financial Modelling with Software MS 5490 Financial Modelling with Software MS 5401 Seminars in Marketing MS 5301 Seminars in Marketing MS 5402 Distribution and Channel Management MS 5429 Marketing Metrics MS 5431 Strategic Brand Management MS 5432 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Decision Support System MS 5460 Management MS 5461 HR Analytics MS 5462 Performance Management MS 5471 Strategies for Managing Supply Chain MS 5431 Advertising Research MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Decision Support System MS 5465 Performance Management MS 5466 Performance Management MS 5471 Strategies for Managing Supply Chain Material Management MS 5461 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Management Digital Marketing Strategies MS 5463 Advertising Research MS 5464 Market Strategy and Forecasting MS 5465 Customer Relations Management MS 5466 MS 5471 Strategies for Managing Supply Chain Material Management MS 5461 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Management Distribution Networks  MS 5463 Advertising Research MS 5465 MS 5463 Advertising Research MS 5466 Retailing and Analytics MS 5467 Distribution Networks  MS 5471 Strategies for Managing Supply Chain Material Management MS 5472 Strategies for Managing Supply Chain Material Management MS 5473 Strategies for Managing Supply Chain Material Management MS 5475 Distribution Networks  MS 5476 Strategies for Managing Supply Chain Material Managemen		1		
MS 5426 Mathematical Modeling in Finance MS 5412 Islamic Banking and Finance MS 5461 Fintech/Data Science for Finance MS 5452 Applied Time Series Analysis and Forecasting With Software MS 5469 Risk Management MS 5459 Financial Modelling with Software MS 5479 Financial Modelling with Software MS 5480 Marketing MS 5481 Management MS 5482 Distribution and Channel Management MS 5422 Distribution and Channel Management MS 5423 Strategic Brand Management MS 5424 Strategic Brand Management MS 5425 Strategic Social Marketing MS 5430 Strategic Social Marketing MS 5431 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5456 Digital Marketing and Social Media MS 5465 Market Strategy and Forecasting MS 5466 Nanagement MS 5470 Disaster Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5472 Strategic Social Marketing MS 5483 Advertising Research MS 5484 Behavioral Marketing MS 5485 Digital Marketing and Social Media MS 5486 Narket Strategy and Forecasting MS 5487 Disaster Management MS 5488 Retailing and Analytics Alternate courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5102 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				Digital Marketing and Social Media
MS 5412 Islamic Banking and Finance MS 5461 Fintech/Data Science for Finance MS 5452 Applied Time Series Analysis and Forecasting With Software MS 5469 Risk Management MS 5469 Financial Modelling with Software MS 5469 Financial Modelling with Software MS 5470 Financial Modelling with Software MS 5480 Financial Modelling with Software MS 5481 Seminars in Marketing MS 5492 Distribution and Channel Management MS 5421 Strategic Brand Management MS 5422 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Entrepreneurial Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Digital Marketing Strategies MS 5436 Retailing and Analytics MS 5437 Customer Relations Management MS 5438 Customer Relations Management MS 5449 Management MS 5450 Digital Marketing Strategies MS 5451 Advanced Warehouse, Stores and MS 5452 Gustomer Relations Management MS 5455 Distribution Networks MS 5460 Green Supply Chain Management MS 5461 Distribution Networks MS 5462 Green Supply Chain Management MS 5463 Distribution Networks MS 5464 Advertising Research MS 5465 Digital Marketing Strategies MS 5466 Market Strategy and Forecasting MS 5467 Distribution Networks  Human Resource Management MS 5468 Retailing and Analytics MS 5469 Alarket Strategy and Forecasting MS 5460 Customer Relations Management MS 5460 Side Advanced Marketing and Social Media MS 5460 Digital M				
MS 5461 Fintech/Data Science for Finance MS 5452 Applied Time Series Analysis and Forecasting With Software MS 5469 Risk Management MS 5469 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5460 Ferformance Management MS 5470 Disaster Management MS 5481 Seminars in Marketing MS 5422 Distribution and Channel Management MS 5423 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5425 Marketing Metrics MS 5426 Strategic Entrepreneurial Marketing MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5433 Strategic Social Marketing MS 5434 Strategic Social Marketing MS 5435 Advertising Research MS 5436 Digital Marketing Strategies MS 5437 Disaster Management MS 5468 Retailing and Analytics MS 5469 Green Supply Chain Management MS 5460 Green Supply Chain Management MS 5461 Distribution Networks MS 5462 Green Supply Chain Management MS 5463 Distribution Networks MS 5464 Digital Marketing MS 5465 Distribution Networks MS 5466 Retailing and Analytics All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Human Resource Management MS 5101 Change Management MS 5020 Organizational Development MS 5102 Organizational Development MS 5203 Global Corporate Strategy Courses. Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				
MS 5452 Applied Time Series Analysis and Forecasting With Software  MS 5469 Risk Management MS 5469 Financial Modelling with Software MS 5470 Financial Modelling with Software MS 5480 Financial Modelling with Software MS 5481 MS 5482 Distribution and Channel Management MS 5422 Distribution and Channel Management MS 5423 Strategic Brand Management MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5432 Global Marketing Strategies MS 5434 Behavioral Marketing MS 5435 Digital Marketing Analytics MS 5436 Retailing and Analytics MS 5437 Customer Relations Management MS 5465 Organizational Development MS 5101 Change Management MS 5203 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5203 International Business Management MS 5205 International Business Management MS 5205 Customer Relations Management MS 5205 Discision Support System MS 5454 Management MS 5456 Performance Management MS 5466 Performance Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5461 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Management MS 5463 Distribution Networks Distribution Networks Distribution Networks Distribution Networks  MS 5465 Distribution Networks  MS 5466 Performance Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5472 Creen Supply Chain MS 5462 Green Supply Chain MS 5463 Distribution Networks		0	MS 5453	Customer Relations Management
Forecasting With Software MS 5469 Risk Management MS 5469 Risk Management MS 5459 Financial Modelling with Software MS 5459 MS 5459 MS 5461 MS 5464 Management Models MS 5457 Disaster Management (GIS) MS 5466 MRS 5466 MRS 5466 MRS 5466 MRS 5466 MS 5466 MS 5471 MA vertiene Management MS 5471 MS 5471 MS 5471 MS 5471 MS 5471 MS			3.6	./****
MS 5469 Risk Management MS 5459 Financial Modelling with Software MS 5459 Financial Modelling with Software MS 5461 MS 5463 HR Analytics MS 5462 Distribution and Channel Management MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5425 Marketing Metrics MS 5426 Strategic Entrepreneurial Marketing MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Digital Marketing and Social Media MS 5436 Digital Marketing and Social Media MS 5457 Market Strategy and Forecasting MS 5468 Market Strategy and Forecasting MS 5469 Customer Relations Management MS 5101 Change Management MS 5101 Change Management MS 5202 Organizational Development MS 5203 Global Corporate Strategy MS 5205 International Business Management MS 5205 Market International Business Management MS 5206 Market Strategy MS 5206 Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	WIS 3432			nent/HRM
Marketing MS 5459 Financial Modelling with Software MS 5301 Seminars in Marketing MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5429 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5433 Strategic Social Marketing MS 5434 Strategic Social Marketing MS 5435 Strategic Social Marketing MS 5436 Advertising Research MS 5437 Marketing Research MS 5438 Advertising Research MS 5439 Behavioral Marketing MS 5450 Digital Marketing and Social Media MS 5451 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Management MS 5463 Distribution Networks MS 5464 Digital Marketing and Social Media MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5468 Retailing and Analytics MS 5469 Market Strategy and Forecasting Customer Relations Management MS 5101 Change Management MS 5101 Change Management MS 5102 Organizational Development MS 5203 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5205 International Business Management  MS 5467 Strategies for Management MS 5471 Strategies for Management MS 5461 Management MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5463 Distribution Networks  MS 5468 Distribution Networks  MS 5469 Distribution Networks  MS 5470 Strategies for Management MS 5461 Advanced Warehouse, Stores and MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Mana	MC E460			Decision Support System
Marketing MS 5401 Seminars in Marketing MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5425 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Distribution Networks MS 5436 Retailing and Analytics MS 5437 Students cannot register in Independent Research Study MS 5438 Customer Relations Management MS 5439 Customer Relations Management MS 5450 Organizational Development MS 5450 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5201 International Business Management MS 5202 Distribution and Channel Management MS 5408 Performance Management MS 5471 Strategies for Management MS 5472 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5468 Distribution Networks MS 5468 Distribution Networks MS 5478 Distribution Networks MS 5478 Distribution Networks Alternate courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				
Marketing MS 5301 Seminars in Marketing MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5425 Marketing Metrics MS 5426 Marketing Metrics MS 5427 Strategics for Managing Supply Chain MS 5428 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Distribution Networks MS 5436 Digital Marketing and Social Media MS 5436 Retailing and Analytics MS 5437 Market Strategies MS 5438 Retailing and Analytics MS 5439 Advertising Research MS 5440 Digital Marketing MS 5450 Digital Marketing MS 5451 Active courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5103 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5205 International Business Management  Courses are not offered on a regular basis in summer. A	1013 3439	rmancial Modelling with Software		
MS 5301 Seminars in Marketing MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5425 Marketing Metrics MS 5430 Strategic Entrepreneurial Marketing MS 5431 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Digital Marketing and Social Media MS 5436 Digital Marketing and Social Media MS 5437 Retailing and Analytics MS 5438 Retailing and Analytics MS 5449 Market Strategy and Forecasting MS 5450 Customer Relations Management MS 5451 Advanced Warehouse, Stores and Ms 5452 Green Supply Chain Management MS 5458 Distribution Networks MS 5458 Distribution Networks MS 5458 Distribution Networks MS 5458 Distribution Networks MS 5459 Digital Marketing and Social Media All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5102 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5471 Strategies for Management MS 5420 Green Supply Chain Ms 5451 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Ms 5471 Strategies for Management MS 5462 Green Supply Chain Ms 5462 Green Sup	Marketin	ıσ		<i>y</i>
MS 5422 Distribution and Channel Management MS 5424 Strategic Brand Management MS 5429 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5435 Advertising and Social Media MS 5436 Digital Marketing and Social Media MS 5456 Market Strategy and Forecasting MS 5457 Customer Relations Management MS 5458 Distribution Networks MS 5459 Market Strategy and Forecasting MS 5460 Customer Relations Management MS 5460 Organizational Development MS 5461 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Supply Chain Management MS 5471 Strategies for Managing Supply Chain MS 5471 Advanced Warehouse, Stores and MS 5471 Management MS 5471 Strategies for Managing Supply Chain MS 5471 Strategies for Managing Supply Chain MS 5471 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain MS 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain MS 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain Ms 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain Material Management MS 5462 Green Supply Chain Ms 5462 Green Supply Chain			1013 3400	r errormance wanagement
MS 5424 Strategic Brand Management MS 5429 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5433 Advertising Research MS 5434 Behavioral Marketing and Social Media MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5469 Market Strategy and Forecasting MS 5450 Customer Relations Management MS 5101 Change Management MS 5202 Organizational Development MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5471 Strategies for Managing Supply Chain MS 5471 Strategies for Management MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5472 Green Supply Chain		O	Sumlu (	Thain Management
MS 5429 Marketing Metrics MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5432 Strategic Social Marketing MS 5434 Global Marketing Strategies MS 5435 Advertising Research MS 5436 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5469 Market Strategy and Forecasting MS 5450 Customer Relations Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Global Corporate Strategy MS 5203 Global Corporate Strategy International Business Management MS 5205 International Business Management  MS 5451 Advanced Warehouse, Stores and Material Management MS 5462 Green Supply Chain		O O		
MS 5431 Strategic Entrepreneurial Marketing MS 5432 Strategic Social Marketing MS 5428 Global Marketing Strategies MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5457 Customer Relations Management MS 5408 Thuman Resource Management MS 5409 Organizational Development MS 5101 Change Management MS 5102 Organizational Development MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5463 Ciren Supply Chain Management MS 5468 Distribution Networks  MS 5468 All courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				
MS 5432 Strategic Social Marketing MS 5428 Global Marketing Strategies MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5465 Customer Relations Management MS 5465 Customer Relations Management MS 5466 Thuman Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5462 Green Supply Chain Management MS 5468 Distribution Networks  MS 5468 All courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A			1410 0101	
MS 5428 Global Marketing Strategies MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5457 Customer Relations Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Global Corporate Strategy MS 5203 Global Corporate Strategy MS 5205 International Business Management  MS 5458 Distribution Networks  All courses may vary from time to time.  All courses may not necessarily be offered every year.  Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A			MS 5462	
MS 5433 Advertising Research MS 5434 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5453 Customer Relations Management  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				11 2
MS 5434 Behavioral Marketing MS 5456 Digital Marketing and Social Media MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5453 Customer Relations Management  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Program Elective courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A			1110 0 100	Distribution rectivories
MS 5456 MS 5468 MS 5468 MS 5465 MS 5465 MS 5465 MS 5453 Market Strategy and Forecasting Customer Relations Management  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	MS 5434		Program	Elective courses may vary from time to time
MS 5468 Retailing and Analytics MS 5465 Market Strategy and Forecasting MS 5453 Customer Relations Management  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Alternate courses may be substituted as and when required.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	MS 5456			
MS 5465 Market Strategy and Forecasting MS 5453 Customer Relations Management  Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Frequired.  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	MS 5468			
Human Resource Management MS 5101 Change Management MS 5102 Organizational Development MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Students cannot register in Independent Research Study (IRS) OR thesis without completing six compulsory courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	MS 5465			-
MS 5101 Change Management (IRS) OR thesis without completing six compulsory MS 5102 Organizational Development courses.  MS 5202 Organizational Strategies and Effectiveness Maximum course load for a semester is 4 courses (12 MS 5203 Global Corporate Strategy credit hours). Summer is not a regular semester; therefore, MS 5205 International Business Management courses are not offered on a regular basis in summer. A	MS 5453	Customer Relations Management	required.	
MS 5101 Change Management (IRS) OR thesis without completing six compulsory MS 5102 Organizational Development courses.  MS 5202 Organizational Strategies and Effectiveness Maximum course load for a semester is 4 courses (12 MS 5203 Global Corporate Strategy credit hours). Summer is not a regular semester; therefore, MS 5205 International Business Management courses are not offered on a regular basis in summer. A			Students	cannot register in Independent Research Study
MS 5102 Organizational Development courses.  MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management courses.  MS 5206 Organizational Development courses.  Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	Human I	Resource Management		
MS 5202 Organizational Strategies and Effectiveness MS 5203 Global Corporate Strategy MS 5205 International Business Management  Organizational Strategies and Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A				thesis without completing six compaisory
Effectiveness Maximum course load for a semester is 4 courses (12 credit hours). Summer is not a regular semester; therefore, Courses are not offered on a regular basis in summer. A			courses.	
MS 5203 Global Corporate Strategy credit hours). Summer is not a regular semester; therefore, courses are not offered on a regular basis in summer. A	MS 5202		Mayimun	n course load for a semester is 4 courses (12
MS 5205 International Business Management courses are not offered on a regular basis in summer. A	1.60 =200			*
		1		
MS 5711 L reative Leadership Stiller Can take mayimiim file informacininary elective				
	MS 5211	Creative Leadership		
MS 5216 Corporate Governance courses in SS/CS/IT/ Media/MBA program with the prior				
MS 5225 Leadership and Motivation Techniques approval of respective program managers.  MS 5229 Negotiations and Conflict Resolution			approval	of respective program managers.

PROSPECTUS 2024 27

MS 5229 Negotiations and Conflict Resolution
MS 5241 Public Administration and Governance
MS 5245 System Thinking and Organizational
Learning
MS 5303 Issues in Strategic Management



#### **DEPARTMENT OF COMPUTING**

The Department of Computing is aimed to produce globally recognized scientific and technological experts in the field of computing. In the recent decade the computer science has played a catalytic role for many real-world applications. This includes, but not limited to, banking, software house, education, government, commerce, security, healthcare etc. The Department of Computing at SZABIST is committed to produce quality graduated who can satisfy the **national and global contemporary scientific and technological needs.** The students are encouraged to render **cutting edge research & development** in the domain of computing to handle **socio-economic challenges**.

#### **PROGRAMS**

The Department of Computing at SZABIST offers degree program both at undergraduate and graduate level. All programs being offered in the Department of Computing are fully in-line with the guidance of Higher Education Commission and in accordance with the national and global industrial needs. The programs being offered at the Department of Computing are accredited by National Computing Education Accreditation Council (NCEAC), Pakistan.

#### BS Computer Science

The program is offered through a well-trained foreign qualified faculty. It consists of 44 courses (five/six courses per semester) with a total of 130 credit hours. BSCS Program is accredited by NCEAC. The maximum time to complete the degree is six years.

#### BS (Computer Science) COURSE PLAN (ROADMAP)

Sem.	Codes	Course Title	Cr.I	Irs.	Pre-Req.		
	First Year						
	_	Fall Semester					
	CSC 1101	Calculus and Analytical Geometry	3, 0	3			
	CSC 1102	English Composition and Comprehension	3, 0	3			
	CSC 1103	Fundamentals of Programming	3, 0	3			
	CSCL 1103	Lab: Fundamentals of Programming	0, 1	1			
	CSC 1108	Introduction to Computer Science	2, 0	2			
	CSCL 1108	Lab : Introduction to Computer Science	0, 1	1			
	CSC 1107	Applied Physics	2, 0	2			
	CSCL 1107	Lab: Applied Physics	0, 1	1			
	16						
		Spring Semester					
	CSC 1208	Object Oriented Programming Techniques	3, 0	3	CSC 1103, CSCL 1103		
	CSCL 1208	Lab: Object Oriented Programming Techniques	0, 1	1	CSC 1103, CSCL 1103		
	CSC 1206	Probability and Statistics	3, 0	3			
	CSC 1207	Digital Logic Design	2, 0	2			
	CSCL 1207	Lab: Digital Logic Design	0, 1	1			
	CSC 1209	Islamic Studies/ Humanities	2, 0	2			
	CSC 1211	Ideology and Constitution of Pakistan	2, 0	2			
	CSC 2101	Communication and Presentation Skills	3, 0	3	CSC 1102		
			17				

	Second Year			
	Fall Semester			
CSC 2102	Data Structures and Algorithms	3, 0	3	CSC 1208, CSCL 1208
CSCL 2102	Lab: Data Structures and Algorithms	0, 1	1	CSC 1208, CSCL 1208
CSC 1202	Multivariate Calculus	3, 0	3	CSC 1101
CSC 1201	Discrete Mathematical Structures	3, 0	3	
CSC 3105	Computer Organization and Assembly Language	2, 0	2	CSC 2103, CSCL 2103
CSCL 3105	Lab: Computer Organization and Assembly Language	0, 1	1	CSC 2103, CSCL 2103
CSC 3106	HCI & Computer Graphics	2, 0	2	
CSCL 3106	Lab: HCI & Computer Graphics	0, 1	1	
CSC xxxx	University Elective-1	2, 0	2	
	·	18		
	Spring Semester			
CSC 2203	Database Systems	3, 0	3	CSC 2102, CSCL 2102
CSCL 2203	Lab: Database Systems	0, 1	1	CSC 2102, CSCL 2102
CSC 2204	Finite Automata Theory and Formal Languages	3, 0	3	
CSC 2206	Linear Algebra	3, 0	3	
CSC 3202	Design and Analysis of Algorithms	3, 0	3	CSC 2102, CSCL 2102
CSC 3101	Computer Architecture	3, 0	3	CSC 2201, CSCL 2201
		16		

29

	Third Year			
	Fall Semester			
CSC 3107	Operating Systems	2,0	2	
CSCL 3107	Lab: Operating Systems	0, 1	1	
CSC 3201	Compiler Construction	3,0	3	CSC 2204
CSC 3109	Software Engineering	3,0	3	
CSC 3108	Advance Database Management Systems	2,0	2	CSC 2203, CSCL 2203
CSCL 3108	Lab: Advance Database Management Systems	0, 1	1	CSC 2203, CSCL 2203
CSC 3110	Community Service	2,0	2	
CSC 3111	Entrepreneurship	2,0	2	
	*	16		
	Spring Semester			
CSC 1205	Technical and Business Writing	3,0	3	CSC 1102
CSC 3209	Computer Networks	2,0	2	
CSCL 3209	Lab: Computer Networks	0, 1	1	
CSC 3206	Artificial Intelligence	2,0	2	
CSCL 3206	Lab: Artificial Intelligence	0, 1	1	
CSC xxxx	CS Elective-1	3,0	3	
		<u> </u>		1
CSC xxxx	CS Elective-2	3,0	3	

	Forth Year			
	Fall Semester			
CSC 4105	Final Year Project-I	0, 3	3	
CSC xxxx	CS Elective-3	3, 0	3	
CSC xxxx	CS Elective-4	3, 0	3	
CSC xxxx	University Elective-2	3,0	3	
CSC 4107	Information Security	2,0	2	
CSCL 4107	Lab: Information Security	0, 1	1	
CSC 4109	Professional Practices	2,0	2	
		17		
	Spring Semester			
CSC 4205	Final Year Project-II	0,3	3	CSC 4105
CSC 4106	Parallel and Distributed Computing	3, 0	3	CSC 2205, CSCL 2205
CSC xxxx	CS Elective-5	3, 0	3	
CSC xxxx	CS Elective-6	3,0	3	
CSC xxxx	CS Elective-7	3,0	3	
·		15		
	Total Credit Hours	130		

All the undergraduate Muslim students (Fall 2023 intake onwards) will be required to complete the non-credit course **CSC 1215 Teachings of the Holy Quran**, to qualify for the degree.

A CSC xxxx Mathematics deficiency course will be offered to the students having limited mathematical background, as identified by the relevant PM/HOD.

#### CS ELECTIVES

CSC 4703 Applied Data Mining CSC 4706 Digital Image Processing CSC 4708 Enterprise Resource Planning CSC 4712 IT Innovations CSC 4714 Network Security and Encryption CSC 4716 Switching and Routing CSC 4717 Web Technologies-I CSC 4718 Wireless and Mobile Technologies CSC 4719 Game Development CSC 4721 Introduction to Cloud Computing CSC 4722 Introduction to Blockchain Technology CSC 4723 Blockchain and Smart Contract Development CSC 4802 Android Application Development CSC 4803 Auditing Information Systems CSC 4805 Data and Network Security CSC 4806 Digital Signal Processing CSC 4807 Embedded Programming CSC 4808 Ethical Hacking CSC 4809 iOS Development CSC 4812 Mechatronics CSC 4813 Modeling and Simulation CSC 4814 Software Project Management CSC 4815 Software Engineering-II

CSC 4816 Technopreneurship CSC 4817 Web Technologies-II CSC 4823 Interaction Design CSC 4824 Embedded Systems CSC 4825 Computer Graphics CSC 4826 Introduction to Data Sciences CSC 4724 User Interface Design CSC 4725 Introduction to Development and Operations CSC 4726 Systems and Network Administration CSC 4827 Software Quality Engineering and Testing CSC 4727 Hybrid Mobile Application Development

CSC xxxx No Code Programming

#### **UNIVERSITY ELECTIVES**

Each campus may offer university electives as per convenience and availability of resources. The Electives being offered at Karachi Campus as are as follows:

CSC 4501	Business and Technology Ethics
	Design and Creativity
CSC 4503	Introduction to Accounting
CSC 4504	Organizational Behavior
CSC 4601	Foreign Languages
CSC 4602	History of Scientific Ideas
CSC 4603	Management Principles
CSC 4604	Research Report
CSC 4605	Sociology
CSC 4606	Psychology

#### **DISTRIBUTION OF CREDIT HOURS**

Areas	Cr. Hrs.	Courses
Computing Core	46	14
Domain Core	18	6
Domain Elective	21	7
Mathematics and Supporting Courses	12	4
Elective Supporting Courses	3	1
General Education Requirement	30	12
Total	130	44

All courses may not be offered in every semester. Elective courses may vary from time to time. Alternative courses may be substituted as and when required.

#### Internship

The internship is scheduled at the end of the third year. After completing the six-week internship, all students must submit a comprehensive report, giving details of their experience and learning.



PROSPECTUS 2024

#### BS SOFTWARE ENGINEERING

The BS Software Engineering program at SZABIST is a full-time four year degree program comprising eight semesters with minimum of 130 credit hours. The degree program is designed around a set of courses pertaining to the principles of software analysis, design, architecture, development, testing, and maintenance techniques that are necessary to produce high-quality software systems. Some additional courses from the disciplines of Computer Science, Mathematics, Management Science, and Humanities are part of the degree program to develop a broader knowledge base of the students.

The BS Software Engineering program is offered through a trained foreign qualified faculty. It consists of 44 courses with a total of 130 credits hours. The maximum duration to complete the degree is six years.

#### BS (SOFTWARE ENGINEERING) COURSE PLAN (ROADMAP)

Sem.	Codes	Course Title	Cr.H	rs.	Pre-Req.
		First Year			
		Fall Semester			
	CSC 1101	Calculus and Analytical Geometry	3, 0	3	-
	CSC 1102	English Composition and Comprehension	3, 0	3	-
	CSC 1103	Fundamentals of Programming	3,0	3	-
	CSCL 1103	Lab: Fundamentals of Programming	0, 1	1	-
	CSC 1108	Introduction to Computer Science	2, 0	2	-
	CSC L1108	Lab: Introduction to Computer Science	0, 1	1	-
	CSC 1107	Applied Physics	2, 0	2	-
	CSCL 1107	Lab: Applied Physics	0, 1	1	-
			16		
		Spring Semester			
	CSC 1208	Object Oriented Programming Techniques	3,0	3	CSC 1103, CSCL 1103
	CSCL 1208	Lab: Object Oriented Programming Techniques	0, 1	1	CSC 1103, CSCL 1103
	CSC 1206	Probability and Statistics	3, 0	3	
	CSC 1207	Digital Logic Design	2, 0	2	
	CSCL 1207	Lab: Digital Logic Design	0, 1	1	
	CSC 1209	Islamic Studies/ Humanities	2,0	2	
	CSC 1211	Ideology and Constitution of Pakistan	2, 0	2	
	CSC 2101	Communication and Presentation Skills	3,0	3	CSC 1102
		1	1	_	i e

Second Year					
	Fall Semester				
CSC 2102	Data Structures and Algorithms	3, 0	3	CSC 1208, CSCL 1208	
CSCL 2102	Lab: Data Structures and Algorithms	0, 1	1	CSC 1208, CSCL 1208	
CSC 1201	Discrete Mathematical Structures	3, 0	3		
CSC 2206	Linear Algebra	3, 0	3		
CSC 3105	Computer Organization and Assembly Language	2, 0	2	CSC 2103, CSCL 2103	
CSCL 3105	Lab: Computer Organization and Assembly Language	0, 1	1	CSC 2103, CSCL 2103	
CSC 3109	Software Engineering	3, 0	3		
SEC xxxx	University Elective-1	2,0	2		
		18			

	Spring Semester			
 CSC 3107	Operating Systems	2, 0	2	
CSCL 3107	Lab: Operating Systems	0, 1	1	
CSC 2203	Database Systems	3, 0	3	CSC 2102, CSCL2102
CSCL 2203	Lab: Database Systems	0, 1	1	CSC 2102, CSCL2102
SEC 2406	Software Design & Architecture	3, 0	3	
CSC 1202	Multivariate Calculus	3,0	3	CSC 1101
SEC 2407	Software Requirement Engineering	2, 0		CSC 3109
SECL 2407	Lab: Software Requirement Engineering	0, 1	1	CSC 3109
	3 3 3	16		
	Third Year			
	Fall Semester			
SEC 3604	Software Construction & Development	2, 0	2	SEC 2404
SECL 3604	Lab: Software Construction & Development	0, 1	1	SEC 2404
CSC 3209	Computer Networks	2,0	2	5EC 2101
CSCL 3209	Lab: Computer Networks	0, 1	1	
CSC 1205	Technical and Business Writing	3,0	3	CSC 1102
CSC 3202	Design and Analysis of Algorithms	3,0	3	CSC 2102, CSCL2102
CSC 3202	Community Service	2,0	2	Coc 2102, Coch2102
CSC 3111	Entrepreneurship	2,0	2	
C3C 3111	Entrepreneursnip	16		
		10		
	Spring Semester			
 SEC 3608	Software Quality Engineering and Testing	3,0	3	SEC 3604, SECL 3604
CSC 4107	Information Security	2,0	2	3EC 3004, 3ECL 3004
CSC 4107	Lab: Information Security	0, 1	1	
CSC 4107 CSC 4109	Professional Practices	2,0	2	
SEC xxxx	SE Elective-1	3,0	3	
SEC XXXX	SE Elective-1 SE Elective-2	3,0	3	
CSC 3206	Artificial Intelligence	2,0	2	
CSC 3206 CSCL 3206	Lab: Artificial Intelligence	0, 1	1	
CSCL 3206	Lab: Artificial intelligence	17	1	
		1/		
	Fourth Year			
	Fall Semester			
CSC 4105	Final Year Project-I	0, 3	3	
SEC 3603	Software Project Management	3,0	3	CSC 3109
SEC xxxx	SE Elective-3	3,0	3	
SEC xxxx	SE Elective-4	3,0	3	
CSC 4106	Parallel and Distributed Computing	3,0	3	CSC 2205, CSCL 2205
	1 0	15		,
	Spring Semester			
CSC 4205	Final Year Project-II	0, 3	3	CSC 4105
SEC xxxx	University Elective-2	3, 0	3	
SEC xxxx	SE Elective-5	3, 0	3	
SEC xxxx	SE Elective-6	3, 0	3	
SEC xxxx	SE Elective-7	3, 0	3	
		15	_	
	TOTAL CR. HR	130		

PROSPECTUS 2024 — 33

All the undergraduate Muslim students (Fall 2023 intake onwards) will be required to complete the non-credit course CSC 1215 Teachings of the Holy Quran, to qualify for the degree.

\*\*A CSC xxxx Mathematics deficiency course will be offered to those students who have limited mathematical background (if deemed necessary by relevant PM/HOD).

#### **SE Electives**

SEC 4516	Artificial Intel	ligence
----------	------------------	---------

SEC 4537 Parallel and Distributed Computing

SEC 4515 Digital Image Processing

SEC 4528 Game Development

SEC 4532 Introduction to Cloud Computing

SEC 4543 Systems Programming

SEC 4544 Technopreneurship

SEC 3614 Computer Graphics

SEC 4514 Introduction to Data Science

SEC 4534 Modeling and Simulation

SEC 3612 Mobile Application Development

SEC 4521 Agent Based Software Engineering

SEC 4522 Big Data Analytics

SEC 4523 Computational Intelligence

SEC 4524 Computer Vision

SEC 4526 Design Patterns

SEC 4511 e-Commerce

SEC 4527 Formal Methods

SEC 4531 Information Systems Audit

SEC 4533 Management Information Systems

SEC 4535 Multimedia Communication

SEC 4536 Natural Language Processing

SEC 4538 Real Time Systems

SEC 4539 Semantic Web

SEC 4519 Software Engineering Economics

SEC 4542 Software Metrics

SEC 4545 Topics in Software Engineering

SEC 4518 Visual Programming

SEC 4525 Data Encryption and Security

SEC 4529 Global Software Development

#### **SE Supporting courses**

SEC 4713 Digital Logic Design

OFF AFTA	ъ.	D	-	
SEC 4714	Business	Process	Engine	eering

SEC 4711 Formal Methods in Software Engineering

SEC 4712 Operations Research

SEC 4715 Stochastic Processes

#### UNIVERSITY ELECTIVES

SEC 3309 Organizational Behavior

SEC 3307 Foreign Languages

SEC 3308 Management Principles

SEC 3306 Sociology

SEC 3311 Psychology

SEC 3301 Introduction to Management

SEC 3302 Financial Accounting

SEC 3303 Human Resource Management

#### **DISTRIBUTION OF CREDIT HOURS**

Areas	Cr. Hrs.	Courses
Computing Core	46	14
Domain Core	18	6
Domain Elective	21	7
Mathematics and Supporting Courses	12	4
Elective Supporting Courses	3	1
General Education Requirement	30	12
Total	130	44

#### Internship

The internship is scheduled at the end of third year. After completion of the six-week internship, all students are required to submit a comprehensive report, giving details of their experience and learning.

All courses may not be offered in every semester. Elective courses may vary from time to time. Alternative courses may be substituted as and when required.



#### BS ARTIFICIAL INTELLIGENCE

The Bachelor of Science in Artificial Intelligence BS(AI) program is offered by the Department of Robotics and Artificial Intelligence. This comprehensive four-year program encompasses a total of 44 courses, amounting to 130 credit hours. To fulfill the degree requirements, students are provided with internship opportunities, integrating practical experience with academic learning. The BS(AI) program is structured as a full-time, daytime curriculum, meticulously designed to cover the forefront of technological advancements in fields such as Machine Learning, Deep Learning, Explainable AI, Evolutionary Computing, Computer Vision, Software Engineering, and Natural Language Processing. The program comprises of 49 credit hours of Computing Core courses, 15 credit hours of Domain Core courses, 21 credit hours of Domain Electives, 9 credit hours of Mathematics and Supporting courses, 3 credit hours of Elective Supporting courses, and 33 credit hours of General Education Requirement courses. The maximum duration of the program is six years.

#### Mission Statements

To provide a quality education in Artificial Intelligence in order to produce scientifically, technologically, and professionally competent graduates who are adept to perform a significant role in the continuing transformation of local and global society.

#### **Program Educational Objectives**

Following are the Program Educational Objective (PEO)

- PEO 1: To equip students with the necessary skills and knowledge to solve complex problems in real-world settings.
- PEO 2: To produce graduates practicing in the area of Artificial Intelligence in a socially and ethically responsible way.
- **PEO 3:** To prepare students for lifelong learning skills in Artificial Intelligence and allied disciplines.

#### **Graduate Attributes**

To attain the educational objectives of programs, it is intended to produce the following measurable outcomes at the time of graduation. Graduates of the program will have:

- a. Ability to apply knowledge of mathematics, science, computing fundamentals and any of its specializations to solve complex problems.
- b. Ability to identify, formulate, research literature, and analyze complex problems reaching substantiated conclusions using basic principles of mathematics, natural sciences and computer science.
- c. Ability to design solutions for complex problems and design software systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- d. Ability to investigate methodically complex problems including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions.
- e. Ability to create, select and apply appropriate techniques, resources, and modern IT tools, including prediction and modeling, to complex activities, with an understanding of the limitations.
- f. Ability to understand the impact of professional solutions in societal and environmental contexts and apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues.
- g. Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of society and professional practice.
- h. Ability to work effectively, as an individual or in a team, on multifaceted and/or multidisciplinary settings.
- i. Ability to communicate effectively, orally as well as in writing, on complex activities with the community and with the society at large, such as being able to write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- j. Ability to demonstrate management skills and apply systems development principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.
- k. Ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments.

PROSPECTUS 2024 35

#### BS ARTIFICIAL INTELLIGENCE CURRICULUM

Codes	Course Title	Cr.Hrs.	Pre-Req.			
First Year						
Semester - I						
CSC 1101	Calculus and Analytical Geometry	3, 0	-			
CSC 1102	English Composition and Comprehension	3, 0	-			
CSC 1103	Fundamentals of Programming	3,0	-			
CSCL 1103	Lab: Fundamentals of Programming	0, 1	-			
CSC 1108	Introduction to Computer Science	2,0	-			
CSCL1108	Lab: Introduction to Computer Science	0, 1	-			
CSC 1107	Applied Physics	2, 0	-			
CSCL 1107	Lab: Applied Physics	0, 1	-			
	Sub-total Sub-total	16				
	Semester - II					
CSC 1208	Object Oriented Programming Techniques	3, 0	CSC 1103, CSCL 1103			
CSCL 1208	Lab: Object Oriented Programming Techniques	0, 1	CSC 1103, CSCL 1103			
CSC 1206	Probability and Statistics	3,0	-			
CSC 1207	Digital Logic Design	2,0	-			
CSCL 1207	Lab: Digital Logic Design	0, 1	-			
CSC 1209	Islamic Studies / Humanities	2,0	-			
CSC 1211	Ideology and Constitution of Pakistan	2,0	-			
CSC 2101	Communication and Presentation Skills	3, 0	CSC 1102			
	Sub-total	17				

Codes	Course Title	Cr.Hrs.	Pre-Reg.				
	Second Year		110 1104				
	Semester - III						
CSC 2102	Data Structures and Algorithms	3,0	CSC 1208, CSCL 1208				
CSCL 2102	Lab: Data Structures and Algorithms	0,1	CSC 1208, CSCL 1208				
CSC 3105	Computer Organization and Assembly Language	2,0	CSC 1207, CSCL 1207				
CSCL 3105	Lab: Computer Organization and Assembly Language	0,1	CSC 1207, CSCL 1207				
CSC 1201	Discrete Mathematical Structures	3,0	-				
CSC 3206	Artificial Intelligence	2,0	CSC 1208, CSCL 1208				
CSCL 3206	Lab: Artificial Intelligence	0,1	CSC 1208, CSCL 1208				
CSC 1202	Multivariate Calculus	3,0	CSC 1101				
	Sub-total	16					
	Semester - IV						
CSC 3209	Computer Networks	2,0	-				
CSCL 3209	Lab: Computer Networks	0,1	-				
CSC 2203	Database Systems	3,0	CSC 2102, CSCL 2102				
CSCL 2203	Lab: Database Systems	0,1	CSC 2102, CSCL 2102				
CSC 3202	Design and Analysis of Algorithms	3,0	CSC 2102, CSCL 2102				
AIC 2401	Programming for Artificial Intelligence	2,0	CSC 3206, CSCL 3206				
AICL 2401	Lab: Programming for Artificial Intelligence	0,1	CSC 3206, CSCL 3206				
CSC 2206	Linear Algebra	3,0	-				
AIC xxxx	AI Elective - I	3,0					
	Sub-total Sub-total	19					

#### BS ARTIFICIAL INTELLIGENCE CURRICULUM

Codes	Course Title	Cr.Hrs.	Pre-Req.			
Third Year						
	Semester - V					
CSC 3107	Operating Systems	2, 0	-			
CSCL 3107	Lab: Operating Systems	0, 1	-			
AIC 3501	Artificial Neural Networks	2, 0	AIC 2401, AICL 2401			
AICL 3501	Lab: Artificial Neural Networks	0, 1	AIC 2401, AICL 2401			
AIC 3503	Machine Learning	2, 0	AIC 2401, AICL 2401			
AICL 3503	Lab: Machine Learning	0, 1	AIC 2401, AICL 2401			
AIC 3502	Knowledge Representation and Reasoning	3, 0	AIC 2401, AICL 2401			
AIC xxxx	AI Elective - II	3, 0	-			
CSC 3111	Entrepreneurship	2, 0	-			
Sub-total 17		17				
	Semester - VI					
CSC 1205	Technical and Business Writing	3,0	CSC 1102			
AIC 3605	Computer Vision	2, 0	AIC 3501, AICL 3501			
AICL 3605	Lab: Computer Vision	0, 1	AIC 3501, AICL 3501			
AIC xxxx	University Elective - I	3, 0	-			
CSC 3109	Software Engineering	3, 0	-			
AIC xxxx	AI Elective - III	3,0	-			
CSC 3110	Community Service	2, 0	-			
	Sub-total Sub-total	17				

Codes	Course Title	Cr.Hrs.	Pre-Req.		
Fourth Year					
Semester - VII					
CSC 4107	Information Security	2, 0	-		
CSCL 4107	Lab: Information Security	0, 1	-		
CSC 4109	Professional Practices	2, 0	-		
AIC 4xxx	AI Elective - IV	3, 0	-		
AIC 4xxx	AI Elective - V	3, 0	-		
AIC 4707	Final Year Project - I	0,3	-		
AIC xxxx	AI Elective - VI	3, 0	-		
	Sub-total Sub-total	17			
	Semester - VIII				
AIC 4807	Final Year Project-II	0, 3	AIC 4707		
AIC 4xxx	AI Elective – VII	3, 0	-		
CSC 4106	Parallel and Distributed Computing	3, 0	CSC 3107, CSCL 3107		
CSC xxxx	University Elective - II	2, 0	-		

All the undergraduate Muslim students (Fall 2023 intake onwards) will be required to complete the non-credit course CSC 1215 Teachings of the Holy Quran, to qualify for the degree.

The following two mathematics deficiency courses (non-credit courses) will be offered to students with limited mathematical background, as identified by the relevant PM/HOD.

Sub-total

**Total Credit Hours** 

CSC xxxx Differential and Integral Calculus

in Computing

CSC xxxx Algebraic Foundations and Applications

in Computing

#### **Domain Electives**

AIC 4701 Advanced Statistics

AIC 4706 Theory of Automata and Formal Languages

AIC 4802 Data Mining

AIC 4702 Deep Learning

AIC 4805 Speech Processing

AIC 4804 Reinforcements Learning

AIC 4803 Fuzzy Systems

AIC 4703 Evolutionary Computing

AIC 4705 Swarm Intelligence

AIC 4801 Agent Based Modeling

AIC 4704 Knowledge Based Systems

AIC 4814 Numerical Computing

AIC 4712 Game Artificial Intelligence

AIC 4815 Virtual and Augmented Reality

AIC 4715 Web Programming with Django

AIC 4713 Mobile Application Development AIC 4811 Digital Image and Video Processing

AIC 4812 Generative AI

AIC 4711 Big Data Analytics

AIC 4813 HCI & Computer Graphics

AIC 4714 Natural Language Processing

#### **UNIVERSITY ELECTIVES**

The Electives courses offered are as follows:

AIC 4601 Business and Technology Ethics

AIC 4501 Design and Creativity

AIC 4503 Introduction to Accounting

AIC 4504 Organizational Behavior

AIC 4602 Foreign Languages

AIC 4502 History of Scientific Ideas

AIC 4603 Management Principles

AIC 4605 Research Report

AIC 4505 Sociology

AIC 4604 Psychology

AIC 4506 Financial Accounting

AIC 4606 Introduction to Marketing

Distribution of Credit Hours			
Domain	Cr. Hrs.		
Computing Core	49		
Domain Core	15		
Domain Elective	21		
Mathematics and Supporting Courses	9		
Elective Supporting Courses	3		
General Education Requirement	33		
Total	130		



#### **MS Computer Science**

SZABIST offers MSCS degree in three domains: Core Computer Science area and in two specialization tracks; i.e., Software Engineering (SE) and Networks and Security (N&S) in order to cater to the market needs. Students have to complete 3 focused courses in any specific domain.

The program is of 2-year duration and is offered in the evening. It requires 33 credit hours to complete. Although the institutional administration emphasize and encourage students to undertake research, they can take two courses in lieu of research in specific domains. If student opts for course work only, he/she is required to complete 11 courses of 3 credit hours each. Else, the student is required to complete 9 courses (27 credit hours) and two Independent Research Studies (6 credit hours) OR one Thesis (6 credit hours).

The maximum time limit to complete the MS degree is 4 years.

#### Master of Science in Computer Science (In Core Computer Science)

#### First Year

#### First Semester

CSC 5105 Research Methodology CSC 5101 Advanced Algorithms Analysis

CSC 5102 Theory of Computation

#### **Second Semester**

CSC 5201 Advanced Operating Systems CSC 5202 Advanced Computer Architecture CSC 5xxx Elective-I (from CS Stream)

#### Second Year

#### **Third Semester**

CSC 5xxx Thesis/Independent Research Study-I OR Course Work (from CS-Stream)

CSC 5xxx Elective-II (from CS-Stream) CSC 5xxx Elective-III (from CS-Stream)

#### **Fourth Semester**

CSC 5xxx Thesis/Independent Research Study-II

OR Course Work (from CS-Stream)

CSC 5xxx Elective-IV (from CS-Stream)

#### Master of Science in Computer Science (With Specialization in Software Engineering)

#### First Year

#### First Semester

CSC 5105 Research Methodology

CSC 5101 Advanced Algorithms Analysis

CSC 5102 Theory of Computation

#### **Second Semester**

CSC 5201 Advanced Operating Systems CSC 5202 Advanced Computer Architecture

SEC 5xxx Elective-I (from SE Stream)

#### Second Year

#### Third Semester

CSC/SEC 5xxx Thesis/Independent Research

Study I OR Course Work (from CS

Stream or from SE-Stream)

SEC 5xxx Elective-II (from SE-Stream) SEC 5xxx Elective-III (from SE-Stream)

#### **Fourth Semester**

CSC/SEC 5xxx Thesis/Independent Research

Study II OR Course Work (from CS Stream or from SE-Stream)

SEC 5xxx Elective-IV (from SE-Stream)

PROSPECTUS 2024 -

#### Master of Science in Computer Science (With Specialization in Networks & Security)

#### First Year

#### **First Semester**

CSC 5105 Research Methodology CSC 5101 Advanced Algorithms Analysis

CSC 5102 Theory of Computation

#### Second Semester

CSC 5201 Advanced Operating Systems CSC 5202 Advanced Computer Architecture NSC 5xxx Elective-I (from N&S Stream)

#### Second Year

#### Third Semester

CSC/NSC 5xxx Thesis/Independent Research

Study I OR Course Work (from

CS Stream or from N&S-Stream)

NSC 5xxx Elective-II (from N&S-Stream) NSC 5xxx Elective-III (from N&S-Stream)

#### **Fourth Semester**

CSC/NSC 5xxx Thesis/Independent Research

Study II OR Course Work (from

CS Stream or from N&S-Stream

NSC 5xxx Elective-IV (from N&S-Stream)

C5-Stream	
CSC 5164	Real-Time Systems
CSC 5162	Digital Image Processing
CSC 5161	Machine Learning
CSC 5163	Data Mining
CSC 5166	Operation Research
CSC 5167	Deep Learning
CSC 5264	Expert Systems
CSC 5267	Reverse Engineering
CSC 5266	Digital Forensics and Malware Analys
CSC 5263	Advanced Resource Sharing
	Architecture
CSC 5262	Computer Vision
CSC 5268	Robotics
CSC 5261	Advanced Database Design
CSC 5265	Distributed Computing
CSC 5269	Systems and Network Programming

CSC 5168 Big Data Analytics

CSC 5271 Natural Language Processing

#### SE-Stream

SEC 5163	Software Requirement Engineering
SEC 5161	Software System Architecture
SEC 5164	Software System Quality
SEC 5162	Advanced Software Engineering
SEC 5261	Software Analysis and Testing
SEC 5263	Web Engineering
SEC 5262	Software Project Management

#### N&S-Stream

NSC 5161	Advanced Computer Networks
NSC 5163	Network Security
NSC 5164	Applied Cryptography
NSC 5162	Information Security
NSC 5165	Cyber Security
NSC 5261	Wireless Sensor Networks
NSC 5264	Telecom Policies and Regulations
NSC 5263	Mobile Ad-hoc Networks
NSC 5262	Advanced Data Communications
NSC 5265	Advanced Routing and Switching
NSC 5166	Advanced Ethical Hacking

- Pre-Requisites:
  For any advanced course, pre-requisite course must have been taken before.
- For each track, the following courses must have been done prior to admission.

#### MS (CS) (In Core Computer Science)

Programming Fundamental

Data Structures **Operating Systems** 

Finite Automata Theory and Formal Languages

#### MS (CS) with SE-Specialization

Programming Fundamental

**Data Structures Operating Systems** Software Engineering

#### MS (CS) with N&S-Specialization

Programming Fundamental

**Data Structures** 

**Operating Systems** 

Data Communication and Computer Networks

Full time academic load is three courses. All students are required to register for full load in the first semester.



#### **DEPARTMENT OF SOCIAL SCIENCES**

Department of Social Sciences at SZABIST aims to develop both intellectual and practical skill sets for our well-rounded students so that they shall face challenges of the 21st century and translate them into opportunities while keeping in mind social, economic and sustainable requirements of the region and beyond.

#### Department of Social Sciences

#### BS Social Sciences

To obtain a BSSS degree in Economics, Sociology or International Relations, students are required to complete a total of 142 credit hours within 6 years. The degree consists of a total of 46 courses and a Research Project / Capstone Project.

	escurent Project / Cupstone Project.		
First Yea	r	SS xxxx	Major-IX
			Major-X
Fall Sem	ester		Major-XI
SS 1117	Computer and Web Skills		,
SS 1116		Spring S	Semester
SS 1104	Introduction to Community Development	_	Research Methods
	and Philanthropy	SS 3612	Foreign Language-II
SS 1201	Introduction to Social Sciences		Major-XII
SS 1114	Ideology and Constitution of Pakistan (2,0)		Major-XIII
SS 1212		SS xxxx	
SS 1213	Humanities* (For non-Muslim students)	SS xxxx	
Spring S			Semester
	Introduction to Psychology	SS 3610	Internship
	Introduction to Economics		
SS 1220	Introduction to Sociology	Fourth Y	ear ear
SS 1216	Introduction to International Relations		
	1	Fall Sem	
SS 2413	Philosophy		Research Project-I/
			Capstone Project-I
	dit Hours Course*		Major-XVI
SS 1225	Teachings of Holy Quran	SS xxxx	Major-XVII
			Major-XVIII
Second ?	Year	SS xxxx	Major-XIX
Second \	Year		Major-XIX Major-XX
Fall Sem	ester		,
Fall Sem SS 2316	ester English for Academic Purposes		Major-XX
Fall Sem SS 2316	ester	SS xxxx  Spring S	Major-XX
<b>Fall Sem</b> SS 2316 SS 2318	ester English for Academic Purposes	SS xxxx  Spring S SS 4809	Major-XX Semester
<b>Fall Sem</b> SS 2316 SS 2318	ester English for Academic Purposes Mathematics and Statistics Business Ethics	SS xxxx Spring S SS 4809 SS 4810	Major-XX Semester Research Project-II /
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx	ester English for Academic Purposes Mathematics and Statistics Business Ethics	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  emester Statistical Inferences	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIII
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410	ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  emester Statistical Inferences	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx SS xxxx	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  ory course.
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410	Ester English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Emester Statistical Inferences Entrepreneurship	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTIV	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  ory course.
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410 SS 2407	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Emester Statistical Inferences Entrepreneurship Ecology	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI' SS 1154	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  ory course.
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410 SS 2407 SS xxxx	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Emester Statistical Inferences Entrepreneurship Ecology Major-IV	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI SS 1154 SS 1165	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  Fory course.  VES Literature Human Geography
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS 2410 SS 2407 SS xxxx SS xxxx SS xxxx	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Emester Statistical Inferences Entrepreneurship Ecology Major-IV Major-V	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI SS 1154 SS 1165	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  ory course.  VES Literature
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS 2410 SS 2407 SS xxxx SS xxxx SS xxxx	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Memester Statistical Inferences Entrepreneurship Ecology Major-IV Major-VI	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTT SS 1154 SS 1165 SS 1157	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  ory course.  VES Literature Human Geography Comparative Religion
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410 SS 2407 SS xxxx SS xxxx SS xxxx SS xxxx	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  Memester Statistical Inferences Entrepreneurship Ecology Major-IV Major-VI	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI SS 1154 SS 1165 SS 1157 SS 1254	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  Fory course.  VES Literature Human Geography Comparative Religion World History
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx Spring S SS 2418 SS 2410 SS 2407 SS xxxx SS xxxx SS xxxx SS xxxx	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  emester Statistical Inferences Entrepreneurship Ecology Major-IV Major-V Major-VI	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTT SS 1154 SS 1165 SS 1157 SS 1254 SS 1262	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  Fory course.  VES Literature Human Geography Comparative Religion World History Mass Media
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx SFring S SS 2418 SS 2410 SS 2407 SS xxxx SS xxxx Third Ye	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  emester Statistical Inferences Entrepreneurship Ecology Major-IV Major-V Major-VI	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI SS 1154 SS 1165 SS 1157 SS 1254 SS 1262 SS 1163	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIIV  Fory course.  WES Literature Human Geography Comparative Religion World History Mass Media Development and Politics
Fall Sem SS 2316 SS 2318 SS 2310 SS xxxx SS xxxx SS xxxx SFring S SS 2418 SS 2410 SS 2407 SS xxxx SS xxxx Third Ye Fall Sem	English for Academic Purposes Mathematics and Statistics Business Ethics Major-I Major-II Major-III  emester Statistical Inferences Entrepreneurship Ecology Major-IV Major-V Major-VI	SS xxxx  Spring S SS 4809 SS 4810 SS xxxx SS xxxx SS xxxx *Mandat  ELECTI SS 1154 SS 1157 SS 1254 SS 1262 SS 1163 SS 1263	Major-XX  Semester Research Project-II / Capstone Project-II Major-XXI Major-XXII Major-XXIII Major-XXIV  Fory course.  WES Literature Human Geography Comparative Religion World History Mass Media Development and Politics Culture and Media in Sindh

MAJORS		SS 4411	Regional and International Organizations
Sociology	y	SS 4408	Modern Political Ideologies
SS 4271	Peace Movements	SS 4260	Foreign Policy Analysis
SS 4141	Mass, Media and Society	SS 4218	International Political Economy
	Social Justice	SS 4409	Nuclear Studies and Non-Proliferation
	Sociology of Education	SS 4412	Regional Connectivity and
SS 4242	The Sociology of Poverty		Economic Integration
SS 4196	Social Theories-I	SS 4407	International Security
SS 4296	Social Theories-II	SS 4143	
	Class, Caste, and Ethnicity in South Asia	SS 4413	Theories and Approaches of
	Political Sociology		International Relations
SS 4272	Social Change in Pakistan	SS 4402	Evolution of State
SS 4169	Citizenship		Peace Studies
SS 4273	Urbanization	00 1210	reace studies
SS 4197	The Sociology of Religion	Economi	cs
SS 4198	Sociology of Health		Development and Planning
SS 4295	Criminology		Mathematical Economics
SS 4238	Social Entrepreneurship		Industrial Economics
SS 4220	Media and Violence		Trade Economics
SS 4269	Civil Society	SS 4128	
SS 4299	Sociology of Terrorism		Labour Economics
SS 4609	Sociology of Sex and Gender		Poverty and Inequality
SS 4180	Artificial Intelligence and Society	SS 4228	
SS 4602		SS 4249	Pakistan Economy
SS 4601	Governance and Social Policy Planning Digital Sociology	SS 4155	Basic Econometrics
SS 4600	Clinical Sociology	SS 4151	O
SS 4607	Sociology of Crowd and	SS 4313	*
CC 4(0(	Collective Behavior	SS 4314	*
SS 4606	Social Problems of Pakistan	SS 4312	9
SS 4605	Research and Techniques in	SS 4304	Fiscal Policy Analysis
CC 4600	Community Development	SS xxxx	
SS 4608	Sociology of Family and Marriage	SS 4190	Intermediate Microeconomics
SS 4280	Demography and Social Statistics	SS 4306	Intermediate Macroeconomics
SS 4603	Introduction to Violence against Women		Public Sector Economics
SS 4230	Project Development and Management	SS 4302	
	10.1.1	SS 4300	Energy Economics
	onal Relations	SS 4317	
	Strategic Studies	SS 4301	Entrepreneurial Economics
	Globalization and Global Governance	SS 4311	Money and Banking
	Central and West Asian Studies	SS 4250	
SS 4175	European Studies	SS 4316	Time series Econometrics
SS 4177	Middle Eastern Studies	SS 4308	Introduction to Development Economics
SS 4179	Politics of Terrorism	SS 4307	International Finance
SS 4178	Muslim World	SS 4309	Islamic Economics
SS 4278	Political Geography	SS 4510	Behavioral Economics
SS 4119	Arms Control and Disarmament	SS 4259	Financial Markets & Institutions
SS 4133	Diplomacy	SS 4310	Microfinance: Theory and Practices
SS 4400	Conflict Resolutions and Confidence	SS 4305	General Equilibrium Theory
	Building Measures		
SS 4290	International Politics and Human Rights	Psycholo	
SS 4404	International Law-I		Experimental Psychology
SS 4405	International Law-II	PSY 3105	Developmental Psychology
SS 4403	Foreign Policy of the USA	PSY 2106	Educational Psychology

PROSPECTUS 2024 43

PSY 2111 Physiological Psychology

PSY 2110 Introduction to Social Psychology

PSY 3110 Personality Theories

PSY 3109 Introduction to Health Psychology

PSY 2112 Psychological Testing

PSY 3102 Clinical Psychology

PSY 2109 Introduction to Organizational Psychology

PSY 2104 Counseling & Psychotherapy

PSY 3101 Addictive Psychology

PSY 2108 Forensic Psychology

PSY 3107 Family and Relationship Counseling

PSY 3114 Rehabilitation Psychology

PSY 3108 Gender Issues in Psychology

PSY 3106 Environmental Psychology

PSY 2103 Community Psychology

PSY 3103 Cognitive Psychology

PSY 3112 Psychodynamic Approaches

PSY 3104 Contemporary issues in Psychology

PSY 2113 Psychopathology-I

PSY 2105 Cross cultural Psychology

PSY 2114 Sports Psychology

PSY 3113 Psychopathology-II

PSY 2115 Statistics in Psychology

PSY 2102 Clinical Internship

PSY 3111 Positive Psychology

PSY 2101 Abnormal Psychology

#### **Sindh Studies**

SS 4188 Geography and Geology of Sindh SS 4287 History and Politics of Sindh SS 4288 Irrigation System of Sindh SS 4185 Agriculture in Sindh

SS 4285 Archaeology of Sindh

SS 4186 Anthropology and Culture of Sindh

SS 4286 Art and Architecture in Sindh

SS 4187 Ethnomusicology of Sindh

SS 4289 Sindh's Economy and Commerce

SS 4292 Survey of Sindhi Literature

SS 4189 Philosophy of Sindh

SS 4192 Sindh's Sociology-I: Education and

Language Policy

SS 4193 Sindh's Sociology-II: Social Structures

and Development

SS 4194 Sindh's Sociology-III: Health, Gender,

and Feminism

SS 4293 The Sindhi Diaspora

SS 4291 Sindh's Geopolitical Exigencies

SS 4191 Sindh's Botanical and Zoological Heritage

All courses may not necessarily be offered in every year. Alternate courses may be substituted as and when required.

Full time academic load is six courses. All students are required to register for full load in the first semester.

#### Internship

The internship is scheduled for summer at the end of the third year. After the completion of the 6-weeks internship, all students are required to submit a comprehensive report giving details of their experience and learning.



# ACADEMIC CALENDAR 2024-25 (Hyderabad Campus)

#### ACADEMIC CALENDAR 2024-25 (Hyderabad Campus)

#### FALL 2024

WEEK	COMMENTS
1	Course Registration
2	IS Thesis Advisors Meeting
3	
4	
5	Teaching Evaluation
6	Teaching Evaluation
7	
8	Mid-Term Exams
9	
10	
11	Last Week to Withdraw from Courses
12	
13	
14	
15	
16	Final Exam Week
17	Final Exam Week
	Comprehensive Exam

#### Classes Commencement Date

Hyderabad Campus:

17 August, 2024

# ACADEMIC CALENDAR 2024-25 (Hyderabad Campus)

#### ACADEMIC CALENDAR 2024-25 (Hyderabad Campus)

#### SPRING 2025

WEEK	COMMENTS
1	Course Registration
2	
3	
4	
5	Teaching Evaluation
6	Teaching Evaluation
7	
8	Mid-Term Exams
9	
10	
11	Last Week to Withdraw from Courses
12	
13	
14	
15	
16	Final Exam Week
17	Final Exam Week
	Comprehensive Exam

#### Classes Commencement Date

Hyderabad Campus:

18 January, 2025

# CAMPUS WISE PROGRAMS OFFERING (FALL 2024)

#### PROGRAMS OFFERING AT DIFFERENT CAMPUSES OF SZABIST (FALL 2024)

PROGRAMS	CAMPUS					
I KOGRAWS	Karachi	Islamabad	Larkana	Hyderabad	Dubai	Gharo
Bachelor of Business Administration (BBA)	/		/	/	<b>/</b>	/
Bachelor of Business Administration (BBA 2.5 Years)			/			/
BA (Hons.) in Business Studies (BABS)	/					
BS Accounting & Finance	/	_	/	/		
BS (Accounting & Finance) 2.5 Years ICAP/CAF Qualified	/	/	·	·		
BS Entrepreneurship	/					
BS Computer Science	_	/	<b>/</b>	/	/	/
BS Artificial Intelligence	/	/		/		
BS Software Engineering	<b>/</b>	/		_		
Bachelor of Media Science	<b>/</b>	<b>/</b>				
BS Social Sciences	<b>/</b>	<b>/</b>	_	_		
BE Mechatronic Engineering	~					
BS Biosciences	<b>/</b>					
BS Biotechnology	/					
BS Educational Psychology						
BS Public Health	/					
Bachelor of Law (LLB)	/					
Certificate of Higher Education in Common Law (CertHE)	/					
CILT (UK) Level 5 Professional Diploma in Logistic & Transport						
Diploma in Early Childhood Education and Development						
Master in Business Administration (MBA)		/	/	_	/	
Executive MBA		-	·	·	-	
Masters in Project Management	<u> </u>	-	/		-	/
Professional MBA	·	-	·		•	•
Masters in Human Resource Management		/				
Master of Advertising		•				
MS Public Health (MSPH)	<u> </u>					
MS Biosciences	-					
MS Biotechnology						
MS Computer Science	/	/			/	
MS (CS) with specialization in Core Computing		<u> </u>		<i>-</i>	/	
MS (CS) with specialization in Software Engineering		Ž		Ž	<i>'</i>	
MS (CS) with specialization in Networks & Security	·	Ť				
MS Cyber Security					/	
Master of Media Science		/				
MS Management Science						
MS in Finance & Economics	<i>/</i>	~	~	~		
MS (Business Analytics)		/				
MS Developmental Studies MS Mechatronic Engineering		<b>/</b>				
MS Data Sciences						
		/	4			
MS Educational Leadership and Management			/			
MS Project Management						
MS Social Sciences	<b>/</b>	<b>✓</b>				
MS (SS) with specialization in Economics	/	/				
MS (SS) with specialization in Psychology	<b>/</b>	/				
MS (SS) with specialization in Clinical Psychology		<i></i>				
MS (SS) with specialization in Sociology	<b>/</b>	<i></i>				
MS (SS) with specialization in International Relations		/				
PhD Social Sciences	<b>/</b>					
PhD (SS) with specialization in Economics	<b>/</b>					
PhD (SS) with specialization in Psychology	<b>/</b>					
PhD (SS) with specialization in Sociology	<b>/</b>					
PhD (SS) with specialization in International Relations	~					
PhD Computing	<b>✓</b>	<b>✓</b>				
PhD Management Sciences	<b>✓</b>	/				
PhD Biosciences	<b>✓</b>					
PhD Educational Leadership and Management	/					

# We just Don't Work Hard We Work Smart

#### Disclaimer

This prospectus is only informational and should not be taken as binding on the institute. The institute, therefore, reserves the right to change any rule, regulation and guideline applicable to the program and the student whenever it is deemed appropriate or necessary, and it will be binding on all continuing and new students for all programs at all campuses.











@szabisthydcampus



@szabisthyderabadcampus



szabisthyderabadcampus



hyd.szabist.edu.pk