



SZABIST

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PROSPECTUS 2019

Islamabad Campus
www.szabist-isb.edu.pk

Shaheed Zulfikar Ali Bhutto Institute of Science & Technology
Karachi - Islamabad - Larkana - Hyderabad - Dubai

A high-angle, black and white photograph of a large, diverse crowd of people. Many individuals are looking up towards the camera, smiling, and raising their hands in a gesture of excitement or approval. The crowd is dense, filling the entire frame, and the overall atmosphere is one of collective enthusiasm and energy.

**We Just Don't Work Hard
We Work Smart**

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.

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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 and diligence. We prepare our students for professional careers, therefore, we offer a wide variety of humanities, science and technological programs including Management Sciences, Computer Sciences, Social Sciences, Media Sciences, Mechatronics 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 i.e. providing opportunity for high quality tertiary education and research to the youth in different areas of Pakistan, SZABIST, now has four campuses in Pakistan-Karachi, Islamabad, Larkana and Hyderabad, and an overseas campus in Dubai, UAE.

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 you to realize and nurture your 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 student's learning experience and continuously improve the standard of education, the Institutional Research Department/Quality Enhancement Cell periodically assesses all programs to monitor and 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 campus. A "Library Hub" is being established to fulfill emerging research and academic requirements.

As I welcome the new students, I encourage them to strive for excellence, develop freedom of thought and speech, and while they equip themselves with marketable skills, they should actively work to free our beloved country from bigotry and ignorance.

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 21 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 8 Bachelors, 13 Masters and 4 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, 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, at 94% SZABIST has one of the highest ranking Quality Enhancement Cells (QECs) amongst Pakistani universities. Quality assurance measures are rigorously applied through tools such as Program Self-Assessment Reports, feedback of relevant stakeholders, publications and fulfilling documentary 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



Welcome and thank you for your interest in SZABIST, which is a recognized degree awarding institution and enjoys a high reputation within academia. The founding mission of this institution was to provide a high-quality education to students of great promise, and today we remain resolute in our obligation. As you visit our website, you will discover an institution committed to preparing students in diversified areas of learning, such as Management Sciences, Computer Science, Media Sciences, Biosciences, Education & Social Sciences, Mechatronic Engineering and Law. SZABIST programs under each department are in compliance with HEC recommended course plans and are accredited by respective regulatory bodies such as NBEAC, NCEAC, PEC and CIEC.

Our students, called SZABISTIANS, feel pride belonging to a community of professionals. Our strength is our ERP implemented through our own software house ZABSOLUTIONS. We utilize modern IT tools in teaching and managing all our academics and campus activities to ensure efficient working environment. We follow all prescribed quality education standards through ongoing and systematic assessments round the year. We have been continuously getting more than 90% score during the last five years by QEC/HEC.

We do not merely believe on traditional classroom studies but go beyond by providing numerous opportunities to our students to engage them in various co-curricular and extra-curricular activities. We strongly believe in developing their personalities which we ensure through conducting seminars and guest lectures frequently by eminent personalities through our student societies.

The learning outcomes of the programs have been carefully designed to compel the students for critical & creative thinking, to acquire problem-solving skills and to professionally handle all pedagogical tools. We are fully aware that a University without Research is like a "Body" without "Soul"; therefore, we give high priority to all types of research activities.

Being an academician, I know the significance of providing "Counseling" to the students at every step in their academic career which helps in setting their directions as I believe "Direction" is more important than "Speed".

Finally, I welcome you once again and wish you success. Selecting SZABIST as your career-building institution, I assure you that you will be groomed and nurtured for meeting your future career challenges after completion of your academic degree program.

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

VICE PRESIDENT DEVELOPMENT & FINANCE MESSAGE



Welcome to the 2019-2020 academic year at SZABIST!

SZABIST established by Shaheed Mohtarma Benazir Bhutto and run under the guidance of its Chancellor Dr. Azra Fazal Pechuho has emerged into a leading higher education institution that plays a pivotal role as a center of education recognized for its excellence in producing highly qualified graduates.

Here you will be provided an academically and professionally rewarding experience that aims at ensuring harmonious development of your mind and body to enable a creative, ethical, smart and holistic personality.

As the new academic year starts you are encouraged to take advantage of the wide range of services and facilities available, the student events, programs, seminars and festivals that will make your life at SZABIST interesting. Get involved to make the most of your time and gain the experience that makes you the smart

We are here to support you in every way and welcome you to a fulfilling and interesting academic year.

Nasreen Haque

Vice President (Development and Finance)
SZABIST

HEAD OF CAMPUS' MESSAGE



I welcome you to SZABIST, Islamabad Campus, which has made great progress and has become one of the leading educational institutions of higher learning. SZABIST remains affordable for its students, hailing from socio-economically diverse cadres of society, while ensuring all standards of educational process being met effectively. Such an arrangement has shaped a classic top-notch Pakistani culture at all campuses of SZABIST, giving it an edge over other educational institutions of the sort.

In addition to excelling in academic standards, students' active participation in socio-cultural activities of high canons such as tree plantation, blood donation, youth awareness,

community service campaigns/drives/projects and the like nurture exceptional values of social importance and imbibe a high sense of social and civic responsibility among the youth. The university, energized by its distinguished faculty and strengthened by its brilliant students, now stands in the highest echelons of education in the country and strives to forge new paths for a brighter tomorrow of Pakistan.

Following a dual track of education where personality development and character building go hand in hand with academic excellence, the institute has developed an appropriate environment spearheaded by its distinguished faculty, capable management, and talented students. SZABIST family—the management, the faculty and the students, all are conscious of their coordinated role, being equal stakeholders in the entire educational process at the campus. We are also proud of our alumni who are actively operational in the corporate world, realizing the true mission of SZABIST. The laurels and the good word they bring us further our innovative plans of future expansion and improvement.

We at SZABIST have made it possible through our motto of quality education at affordable cost for all. We welcome students from varied backgrounds and faraway places like GB, AJK, Baluchistan & KPK to present a united Pakistani community of students, engaged in a ceaseless endeavour to set competitive educational standards and seek unprecedented horizons in higher education to stimulate and lead the industrial transformation of the country.

This prospectus provides you with comprehensive information about our programs. We hope that you will become part of the SZABIST student community for a fruitful, self-fulfilling, and productive stay at SZABIST.

Khusro Pervaiz Khan
Head of Campus
SZABIST

INTRODUCTION

Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST) is highly ranked and fully chartered institute of Pakistan established through a Legislative Act of Sindh Assembly (Sindh Act No. XI of 1995). It is approved and recognized by the Higher Education Commission (HEC), Pakistan, as a degree awarding institution. All the programs offered at SZABIST are consistent with the guidelines set by HEC and other regulatory bodies, for example, National Business Education Accreditation Council (NBEAC), and National Computing Education Accreditation Council (NCEAC).

SZABIST is nurturing the intellect of more than 12,500 enrolled students through its five campuses located in Karachi, Hyderabad, Larkana, Islamabad and Dubai. Also, up till now, degrees have been awarded to almost 16,500 graduates. Our alumni are sought by national and multinational organizations and hold key positions in several reputable firms at national and international level.

SZABIST Islamabad offers undergraduate, graduate and post graduate degrees in four diversified disciplines including: Management Sciences, Computer Sciences, Media Sciences & Social Sciences. SZABIST is proud to offer education par excellence in the fields that are crucial for Pakistan's socioeconomic development.

SZABIST is listed as one of the most reputed and highest ranked universities by HEC and Chartered Inspection and Evaluation Committee (CIEC). SZABIST Business School has been rated as "Outstanding" by CIEC and HEC, Pakistan. In addition, all the relevant programs are accredited and recognized by NCEAC. Since 2012, the SZABIST-QEC has been awarded more than 91% in the quantitative assessment by Quality Assurance Agency (QAA) HEC, Pakistan.

The Institute has signed MoUs with various reputable and distinguished organizations and institutions such as, Istanbul Medipol University, Turkey; University of London, UK; Association of Chartered Certified Accountants (ACCA), British Council, and Cisco Networking Academy.

SZABIST, Islamabad campus is housed in a purpose-built edifice located in H-8/4 Islamabad. This sector is reserved for educational institutions of the Federal Capital. Hence, it is surrounded by quality education institutions including Roots schools, OPF Boys College, Shaikh Zaid International Academy, Lahore Grammar School, Beaconhouse School, and The City School. SZABIST is just at a walking distance from the main Express Way that connects Rawalpindi and Islamabad. It shares a border with Bait-ul-Mal, Government Post Graduate Commerce College and another with Shifa International Hospital. Designed in accordance with on-site instructions of Mohtarama Benazir Bhutto Shaheed, the campus has fulfilled her academic dreams. It is just fifteen minutes' drive from various localities of Islamabad & Rawalpindi.



PROGRAMS & CURRICULA

DEGREES OFFERED

All programs are not offered at all campuses. Students are required to check with the local campus offering of programs or refer last page of the prospectus.

Bachelor of Business Administration (BBA)

SZABIST offers a four-year (eight semesters) BBA degree program of 144 credit hours. For the BBA program, the students are required to complete 46 courses, 3 credit hours Business Project and 3 credit hours Community Service Project. The program includes 42 compulsory courses and 4 elective courses from Management, Marketing, Finance, and Supply Chain Management. To obtain the BBA degree, students have to complete 144 credit hours and six-week internship. The maximum time limit to complete the BBA degree is six years.

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

SZABIST offers a four-year (eight semesters) Bachelor of Science (Accounting & Finance) program, consisting of 46 Courses (six courses per semester) and a 6 credit hours Research Project. Students have to complete 144 credits hours along with six weeks of internship to obtain the BS Accounting & Finance (BS A & F) degree. The maximum time limit to complete the degree program is six years. **Those who complete BS (A&F) from SZABIST will get an exemption in ACCA papers from F1 to F9.**

Bachelor of Science in Computer Science (BS CS)

SZABIST offers a four-year (eight semesters) BS Computer Science degree program, which is accredited by NCEAC (National Computing Education & Accreditation Council). The program consists of 40 courses (five courses per semester) with a total of 130 credit hours. The complete course plan includes 8 technical electives and 4 university electives. These 8 technical electives provide focused learning in different areas of computer science and related disciplines. Internship is essential to complete degree requirement. The maximum time limit to complete the BS degree is six years.

Bachelor of Science in Software Engineering (BS SE)

SZABIST offers a four year BS Software Engineering degree program comprising eight semesters. This undergraduate degree program primarily focuses on the processes, methodologies, tools and techniques of developing high quality software systems. 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 knowledgebase of the students. The program consists of 41 courses with a total of 130 credit hours. Internship is mandatory to complete degree requirements. The maximum time limit to complete the BS degree is six years.

Bachelor of Science in Social Sciences (BS SS)

SZABIST offers a four-year (eight semesters) BS Social Sciences degree with majors in Psychology, Sociology, Economics, Development Studies and Political Science. BS Program is essentially a day program and consists of 46 courses (six courses per semester) and a research project with a total of 144 credit hours. The maximum time limit to complete the BS degree is six years.

Bachelor of Science in Media Sciences (BSMS)

The Faculty of Media Sciences at SZABIST offers a comprehensive 4-year Bachelor of Media Science degree with majors in Film and Television production, Advertising Strategy & Design, and Journalism. To earn an undergraduate degree, students must enroll in and successfully complete a total of 135 credit hours which include 43 courses, a 6-credit hours thesis, and an internship (Forty-three courses include: 33 core courses, 7 major requirements in Film and Television production, or Advertising Strategy & Design, or Journalism and 3 open electives). 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.

SZABIST offers both Day and Evening classes with specialization in Management, Human Resource Management, Marketing, Finance, and Supply Chain Management.

The maximum duration to complete the MBA degree 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

PROGRAMS & CURRICULA

complete this program is two years with 72 credit hours. Twenty-two courses (66 credit hours) and Business Research Project (6 credit hours) OR Thesis (6 credit hours) are required to complete the program.

Students with BBA 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.

The Chartered Institute of Logistics and Transport (CILT) Certification

The Chartered Institute of logistics & Transport (CILT) is the leading professional body associated with logistics and transport, having over 33,000 members in over 100 countries worldwide. SZABIST has signed Memorandum of Understanding (MOU) with CILT. Now MBA students have the opportunity of opting for The Chartered Institute of Logistics and Transport (CILT) Certification by doing three electives: (1) Business Theory (2) Business Application (3) Supply Chain Operations. The certification fee is to be paid by students.

Executive Master of Business Administration (EMBA)

SZABIST offers a two-year EMBA degree program for executives and middle level managers striving for excellence and greater challenges in their career. The unique program is specifically designed for those executives who aim to enhance their efficiency and strategic thinking. The individuals will be able to leverage their rich work experience through our curriculum, interactive sessions, conferences, symposia and a wide corporate network. The EMBA program is spread over four semesters and consists of 66 credit hours. Twenty courses, one Business Project (3 credits hour) and one Research Project (3 credits) are required to graduate. Maximum time limit to complete the EMBA degree is four years.

Professional Master of Business Administration (PMBA)

PMBA is a one-year program spread over two semesters and consists of 33 credit hours of teaching.

Ten taught courses (30 credit hours) and a business project (3 credit hours) must be completed. Each semester is of four months duration. Candidates register for five / six courses offered each semester to complete the degree within one year. The PMBA is equivalent to Post Graduate Diploma as per HEC guidelines. Maximum time limit to complete the PMBA degree is four years.

Master in Human Resource Management (MHRM)

The Master in Human Resource Management is designed for those who have functional responsibility to carry out the duties of an organization's human resource department seasoned human resource staff members wishing to keep current; newcomers to the field requiring new knowledge and skills; or specialists wanting to broaden their knowledge. MHRM is a one-year weekend program. The student is required to complete 33 credit hours of coursework/projects within one full calendar year. Maximum time limit to complete the MHRM degree is four years.

Master in Project Management (MPM)

The Master in Project Management (MPM) is designed to enable individuals to manage complex projects through modern project management approaches. MPM is a one-year program comprising 30 credit hours spread over two semesters. Total ten courses are required to graduate. Maximum time limit to complete the MPM degree is four years.

Master of Science in Project Management (MSPM)

SZABIST offers MS in Project Management (MSPM) program which is equivalent to MPhil. The program lays the foundation for students planning to pursue doctoral studies. This Program offers two streams for MSPM. First stream is course work based and second is research based. In course work based stream, students are required to complete 10 courses of 03 credit hours each. In research based stream, the students are required to complete 08 courses of 03 credits hours each (24 credit hours) and two independent research studies (IRS) or a Thesis (06 Credit Hours). In either stream, students are required to complete 30 credit hours in total. All MSPM Students are required to clear GRE,GAT General test or HAT relevant with minimum 50% score. The maximum time limit to complete the MSPM degree is four years.

Master of Science in Management Sciences (MSMS)

SZABIST offers MS degree with concentration in the specialized areas of Human Resource Management, Marketing and Finance. 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 Independent



PROGRAMS & CURRICULA

Research Studies (IRS) OR one Thesis (six Credit Hours). In both the streams, 30 credit hours are required to be completed. As per HEC guidelines, all MS students are required to clear GAT General test or HAT relevant with minimum 50% score. The maximum time limit to complete the MSMS degree is four years.

Master of Science in Social Sciences (MS SS)

SZABIST Department of Social Sciences offers MS Social Sciences degree with specializations including Psychology, Sociology, Political Science and Economics.

It is an evening program only and consists of 10 courses and/or a Thesis/Independent Research Studies of 30 credit hours.

There are two streams available for MS. One Stream is Course Work Based Stream and other one is Research based Stream. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In the Research Based Stream, the student is required to complete 8 Courses (24 Credit Hours) and Two IRS (6 Credit Hours) OR One Thesis (6 Credit Hours). In both the streams, 30 Credit hours to be completed. 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 MSSS degree is four years.

Master of Science in Development Studies (MSDS)

The Faculty of Social Sciences offers a program of studies leading to an MS of international standard in Development Studies (equivalent to M. Phil). Development studies is a multi- and interdisciplinary field of study, that seeks to understand social, economic, political, technological and cultural aspects of societal change, particularly in developing countries. Development studies is characterized also by normative and policy concerns. It aims at contributing to possible solutions to societal problems that development or its absence may produce.

It is an evening program only and consists of 10 courses and/or a Thesis/Independent Research Studies of 30 credit hours.

There are two streams available for MS. One Stream is Course Work Based Stream and other one is Research based Stream. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In the Research Based Stream, the student is required to

complete 8 Courses (24 Credit Hours) and Two IRS (6 Credit Hours) OR One Thesis (6 Credit Hours). In both the streams, 30 Credit hours 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 GRE or GAT General test or HAT relevant with minimum 50% score. The maximum time limit to complete the MS degree is four years.

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 and Security (N&S). Students are required to complete 4 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).

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.

Master of Science in Data Science

SZABIST offers 2 year duration MS (Data Science) degree in the evening. It requires 30 credit hours to complete. The student is required to complete 8 Courses (24 credit hours) and a Thesis (6 credit hours).

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.



PROGRAMS & CURRICULA

Doctor of Philosophy

SZABIST, Islamabad campus offers PhD degree in Management Sciences & Computing in strict adherence to the HEC guidelines.

The admission requirement for PhD is minimum 17.5 years of education, GAT Subject 60% or above and clearing the admission requirements of SZABIST. After admission, the student is required to complete the course work of 18 credit hours within two years which includes five courses and one Independent Research Study. Maximum course load during semester is 9 credit hours. After course work, the student is required to pass comprehensive examination in maximum two attempts within first two years of registration.

The dissertation carrying a weight of 30 credit hours is required to be completed. Prior to submitting the dissertation, the student is required to publish a research paper in HEC recognized journal. The dissertation is sent for evaluation to two examiners in technologically advanced countries. Maximum time limit to complete a PhD degree is 8 years.

In Management Sciences, specializations include Human Resource Management, Marketing and Finance.

PhD Computing can be done in various specialized areas related to pure or applied Computer Sciences. The specializations include but not limited to Database Management Systems, Management Information Systems, Data Warehousing, Data Mining, Networking & Communication, Business Intelligence, Process Modeling, Telecommunication, Mobile Communication, Mobile Computing, Technology Management, Artificial Intelligence, Software Engineering, Agent Systems, Speech Recognition, Multimedia Systems, HCI, E-Business, Machine Vision, Image Processing and any other area which falls in the purview of computer sciences/ computing.



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 | |
| B | 70 – 74 | 3.00 | PhD Degree Requirement |
| B- | 66 – 69 | 2.75 | MS Degree Requirement |
| C+ | 63 – 65 | 2.50 | Master's Degree Requirement |
| C | 60 – 62 | 2.00 | Undergraduate Degree Requirement |
| C- | 55 – 59 | 1.50 | |
| F | < 55 | 0.00 | |



ADMISSION REQUIREMENTS

NOTE:

- All applicants will be required to appear in an entrance test and interview/group discussion held by SZABIST.
- 2 E grades in A Level exam will not be entertained for accredited programs. i.e BBA, BSCS etc.
- Equivalency from Inter Board Committee of Chairmen (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 Islamiyat, Pakistan Studies & Urdu.
- 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, Islamiyat & Pakistan Studies) and A-levels (minimum 3 passes)/12th Grade/Intermediate with minimum 50% marks or equivalent from a recognized institution.

For BS Computer Science/Software Engineering, candidates with mathematical background will be preferred.

Equivalency of grades for the candidates having Cambridge High School Certificate are obtained as follows:

Equivalency of Grades

| A-Level Grade | Equivalent Intermediate % |
|---------------|---------------------------|
| A | 85 |
| B | 75 |
| C | 65 |
| D | 55 |
| E | 45 |

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 2.5 CGPA or 16 years of education with minimum 55% marks from a university recognized by the Higher Education Commission (HEC).

Executive Master of Business Administration (EMBA)/ Professional Master of Business Administration (PMBA)

For admission in the EMBA/PMBA program, the candidate must possess 16-year education with minimum 55% marks/ 2.5 CGPA from a university recognized by the Higher Education Commission of Pakistan (HEC) in any field of study with 3 years professional work experience at mid level/high management position (verifiable) at some well known organization. This requirement is necessary to seek admission in these programs.

Master in Human Resource Management (MHRM)

For admission in the MHRM program, the applicant must possess a minimum of 16 years of education/4-year Bachelor/Masters degree from an HEC recognized educational institute with minimum 55% marks/CGPA 2.5. Relevant work experience of minimum 2 years will also be required for admission in MHRM

Master in Project Management (MPM)

For admission in the MPM program, the applicant must possess a minimum of sixteen years of education/4-year Bachelor/Master's degree from an HEC recognized educational institute with minimum 55% marks / 2.5 CGPA.

ADMISSION REQUIREMENTS

Master of Science in Project Management (MSPM)

For admission in the MSPM program, the applicant must possess a minimum of 16 years of education/4 year Bachelor/Master degree with minimum 2.5 CGPA or minimum 55% marks from an HEC recognized university. Candidates are also required to pass GAT General/HAT relevant with minimum 50% score.

Master of Science in Management Sciences (MSMS)

For admission to MS Management Sciences candidates must possess 16 years of relevant education with minimum 55% marks/2.5 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 MS Computer Science program candidates must possess 16 years of relevant education with minimum 60% marks/2.0 CGPA from a university / institute recognized by HEC. The candidates with a 4-year professional degree (BE, MSc, etc.) may also apply but will require to complete deficiency conversion courses (upto 18 credit hours courses to be determined in consultation with Program Manager).

GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score.

Master of Science in Data Science

For admission to MS (Data Science) program candidates must possess 16 years of relevant education with minimum 60% marks/2.0 CGPA from a university / Institute recognized by HEC. Students with 16 years of education in following domains are eligible to apply: Information Technology, Computer Science, Software Engineering, Computer Engineering, Electrical Engineering, Statistics, or Mathematics.

GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score.

MS SS (Political Science, Economics, Psychology & Sociology)

For admission in MS SS (Political Science, Economics, Psychology & Sociology) program, candidates must possess 16 years of relevant education with minimum 2nd Division/2.0 CGPA from a university recognized by HEC. GAT (General)/HAT relevant is mandatory for MS students with minimum 50% score.

Master of Science in Development Studies (MSDS)

For admission to MS (DS) candidates must possess 16 years of relevant education with minimum 2nd

Division/2.0 CGPA from a university recognized by HEC. GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score.

DOCTORAL DEGREE PROGRAMS

Admission Requirement

A candidate with MA/MS/MBA/MPhil or any other equivalent degree with minimum 17.5 years of formal education in the relevant field from HEC recognized local or foreign university may apply for direct admission in a PhD program. To apply for admission in PhD program, the candidate must have obtained minimum of 3.0 CGPA, cleared the admission test and interview, and have passed GRE/ GAT (subject) with minimum 60% score.

A student may be asked to complete other pre-requisite /deficiency courses/thesis before taking the required courses. The decision on number of pre-requisite courses is taken by the Admissions Committee of relevant department. For non-relevant degrees, the candidate will be required to register for additional Masters level courses as pre-requisites as per the guidance provided by the Admissions Committee.

Degree Requirements

For completion of the PhD degree, the student must complete a total of 48 credit hours (18 credit hours course work and 30 credit hours dissertation) for Computing and Management Sciences. Following is the step by step procedure for PhD:

PhD Degree Milestones

- Clearing admission requirements of HEC and SZABIST
- Completing course work with required CGPA
- Passing comprehensive examination
- Clearing proposal defense
- Completing dissertation
- Completing publication requirements
- Clearing progress seminar(s)
- Satisfactory reports from external examiners
- Dissertation Defense (Open Seminar)

Two interdisciplinary courses can be allowed with the approval of both relevant Program Managers subject to the relevancy of courses.

Comprehensive Examination

All PhD students must pass the PhD Comprehensive Examination within two years from the date of admission as per HEC requirement & after completion of the required coursework that includes 5 courses and one IRS.

ADMISSION REQUIREMENTS

Maximum Course Load in each semester is 9 credit hours. A student must clear the comprehensive examination in maximum two attempts. After successfully passing it, the candidate will get PhD Candidacy.

Research Proposal

The candidate shall prepare a research proposal under the guidance of research supervisor. The first registration in Dissertation will be of 6 credit hours in which the student will work on Proposal for Dissertation. These 6 credits will be included in 30 credit hours of dissertation. The PhD research proposal must be presented before the Evaluation Committee.

Dissertation

A student may register for 3, 6, 9 or 12 credit hours in regular semesters (Spring or Fall). However, for resgistration in 12 Credit Hours, approval from Program Manager is required. No registration is allowed in Summer. The dissertation is expected to be completed in 2 years time after the completion of 1 year course work. The time frame for PhD Degree is minimum 3 years and maximum 8 Years.

Publication Requirements

All PhD candidates are required to write at least one research paper in the area of their research and submit it for publication in a journal recognized by the HEC. This paper must be published before sending the dissertation to two foreign examiners.

Progress Seminar(s)

Before sending the dissertation to two foreign examiners belonging to technologically advanced countries, the candidate has to demonstrate his or her work in front of a panel of experts for the necessary changes if deemed necessary.

Final Defense

After receiving minimum two satisfactory evaluation reports from the foreign examiners the candidate is required to appear for PhD final defense. A formal presentation of dissertation is required to be produced before Evaluation Committee in an open seminar along with viva voce exam.

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 | 60 |
| 1400 – 1499 | 50 |
| 1300 – 1399 | 40 |
| 1200 – 1299 | 30 |
| 1100 – 1199 | 20 |

*Candidates securing 100% marks in CBT will be equivalent to 60.

For Masters Programs

50% score of GMAT for Master Programs

For MS Programs

GAT (General)/GRE/HAT relevant with minimum 50%

For Phd Programs

GAT (Subject) with minimum 60% score

GAT General or HAT relevant is mandatory for MS with minimum 50% score. GAT Subject is mandatory for PhD with minimum 60 % score.

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 transfer 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.

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.

MPM Course Transfer

A maximum of up to 6 credits may be considered for transfer into the Master of Project Management program.

ADMISSION REQUIREMENTS

EMBA/PMBA Course Transfer

No transfer courses are allowed into the EMBA/PMBA program at SZABIST.

MS Course Transfer

Up to 50% of total course work completed at an HEC recognized university can be allowed for transfer at SZABIST MS program.

PhD Course Transfer

Transfer of courses up to 6 credit hours from an HEC recognized university may be allowed in special cases by making a petition to the Doctoral Committee before formal acceptance into the PhD Program. The student may be required to take additional courses as recommended by the relevant program manager.

SZABIST Inter-Campus Transfer

For inter-campus transfer, the candidate must fulfill the admission requirements of the given program at the host campus, as per applicable transfer policy. All courses/grades are transferable. A transfer fee will be payable for 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 or MS program.
- Maximum 02 courses are transferable in PhD program.

The minimum letter grade of Certificate courses from SZABIST which are transferable to regular degree program within a time span of one year are:

- Grade B and above for PhD
- Grade B- and above for MS
- Grade C+ and above for all master's programs
- Grade C and above for bachelor's programs.

Financial Assistance

SZABIST provides a wide range of financial assistance to eligible and deserving students. For instance:

- SZABIST Need-Based Scholarships
- SZABIST Merit-Based Scholarships
- Chief Minister's – SZABIST Merit and Need-Based Scholarships
- Sindh Education Endowment Fund Scholarships
- Punjab Endowment Fund Scholarships
- Baluchistan Endowment Fund Scholarships
- USAID funded Merit and Need-Based Scholarships
- HEC-Indigenous PhD 5000 Fellowship Program
- Ihsan Trust Interest Free Loan Facility
- ACCA Accelerate Scholarships
- Ministry of Harmony and Interfaith Minority Scholarships
- Khairpur Poverty cum Merit Scholarships
- Various community-based scholarships

All scholarships cover tuition fee. However; in some cases, scholarships also cover books, boarding, transportation, monthly stipend, and admission fee.

Financial assistance is also available in the form of adjunct faculty positions to qualified and eligible PhD candidates.



LIFE AT SZABIST

FACILITIES

Video Conferencing

SZABIST is the first educational institute in Pakistan that introduced multi-way 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 regularly. These seminars and lectures are in continuation of the Institute's 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

The Institute 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 has 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 and learning of Statistical Package for Social Sciences.

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 revamped with brand new labs space, furniture and latest machines with giga bite network connectivity to cater students requirements. "Campus licensing" of latest software, including development tools, and operating systems provide an unmatched environment compared to majority of well-reputed universities of Pakistan.

SZABIST has computing facilities supported with 24x7 broadband connectivity of 128 Mbps committed bandwidth to the internet and intranet. SZABIST is Wi-Fi enabled since 2002. Students with 802.11x capable devices (such as laptops, iPads, Cellphones, etc.) can access all network resources wirelessly. SZABIST has acquired Microsoft IT academy and Oracle Academic Alliance program.

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

SZABIST established Smart Lab, equipped with tremendous high speed 7th generation laptops for students. These laptops are connected with SZABIST network through WiFi. A state of the art Smart screen is also available for teacher and students. They can interact to each other with more effective and robust wa

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Research Committee (RC)

SZABIST places high emphasis on research and 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.

Doctoral Committee (DC)

The Doctoral Committee has a key function to monitor the progress of all MS and PhD students. The committee conducts its meetings quite regularly and discuss and recommends the individual cases of all such students pertaining to approval of their work, selection of supervisors, co-supervisors, examiners, evaluators (national and international), recommends research seminars and all other related activities. The DC also ensures the research work carries its value to the society and is free from any un-ethical matters. In this regard, Institutional Ethics Review Board (IERB) work under DC.

Board of Advanced Studies and Research (BASR)

Like any good university, SZABIST has also constituted a Board of Advanced Studies and Research (BASR), which holds its meetings twice a year to discuss and approve/disapprove, the recommendations sent by Doctoral and Research Committees. This is chaired by the President of SZABIST and co-chaired by the Vice President (Academics). The board further considers and reports to the authorities on the award of research degrees, proposes by-laws and policies regarding the initiation, execution, and award of research degrees; provides approvals on appointments of supervisors for postgraduate research students and approves titles and synopses for their theses or dissertations, as recommended by DC. The decisions taken in BASR are ratified in the Academic Council.

Academic Council (AC)

It is the highest academic statutory body of the university. Its meetings are held twice a year after completion of Board of Studies (BOS) meetings, Board of Faculty (BOF) meetings and Board of Advanced Studies & Research (BASR) meetings. All the recommendations related to academic programs, introduction of new programs, changes in the existing

programs, changes in the course outlines, etc. approved by BOF are sent to Academic Council for further discussion and approval. The meeting is chaired by the President and co-chaired by the Vice President (Academics) and is participated by the members of Academic Council from all campuses of SZABIST, and as well as external members from Academia and Corporate Sectors.

Office of Research Innovation and Commercialization (ORIC)

The ORIC office at SZABIST has been established to provide end-to-end services for all matters pertaining to research & development, innovation, inventions, commercialization, patents, collaborations, arranging seminars/ colloquia/ symposium/ conferences/ workshops etc. ORIC is helping its researchers to do high quality research to help shape better future. ORIC intends to provide support to the faculty in solving real-life problems, change policies and influence practice, all to the benefit of the people of Pakistan.

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.

Quality Enhancement Cell (QEC)

Quality Enhancement Cell at SZABIST is created to foster Institutional Effectiveness (IE), to support planning, policy formation, streamlining processes, decision making and critical academic initiatives of strategic importance to the institute in all core departments. QEC activities include promoting and developing QA processes for monitoring and evaluation of programs.

Executive Development Center (EDC)

The Executive Development Center (EDC) at SZABIST Islamabad 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 and presentations by industry experts who share their experiences to help them understand the transition from campus to the corporate world.

EDC compile students' profiles and publishes the annual Graduate Directory in order to market SZABIST graduates to credible organizations.

EDC engages with the Alumni for relationship building, corporate networking and profile update. Its latest initiative is the launch of SZABIST Alumni Global Association (SAGA).

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Job & Internship Placements

In collaboration with the industry, EDC arranges on-campus recruitment drives and management trainee programs by reputable national and multinational companies. EDC 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 real world, SZABIST has instituted a mandatory internship program. 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.
- Bachelors degree students with at least six semesters completed at SZABIST.
- Minimum duration of internship is six weeks.
- Preference is given to those students who are about to graduate and need an internship as a requisite for their degree completion.

Data Center

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 Server Farm (including Domain Controllers, Proxy, Email, Web, Network Management, Electronic Bulletin Board, ZABDESK ERP and many more) and other related services.

Computing Resources

Computing resources of the datacentre is comprising of 11.88 TFLOPS of processing speed with high performance and reliable 50 Tera Bytes of storage capacity. The datacentre is equipped with UPS backup and 12-ton precision cooling system for reliability of datacentre 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

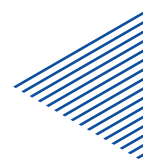
Campus network is based on n-tier architecture which includes security, core, distribution and access layers. The backbone comprises three upper layers i.e. security, core and distribution as well as primary & backup fibre optic link connectivity for all buildings. In Data Center, redundant Chassis-based 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 for monitor and manage the whole network, 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.

ZAB Solutions

SZABIST has its own software house which fulfills the software needs of the SZABIST. The state-of-the-art



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applications that ZABSolutions has developed and evolved are successfully supporting and fueling the complete Academic Lifecycle of the SZABIST. The complete academic process of a student, right from the filling of the online admission form till the printing of the final transcript and the degree, runs on the integrated solutions developed by ZABSolutions.

Several educational institutions in Pakistan have shown their interest in ZABSolutions products. Academic lifecycle of several institutions will soon be migrated to the integrated paperless campus solutions developed by ZABSolutions.

The ZABSolutions incubator helps computer science students to foster their software skills. Students can access ZABSolutions resources and knowledge to develop 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 & development
4. Enhance partnership between industry and academia
5. Provide faculty and the students with innovative support facilities

ZABFM 106.6

ZABFM 106.6 is an in house FM broadcasting station, is an initiative by Shaheed Zulifkar Ali Bhutto Institute of Science & Technology and it was a very 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 education, awareness, skill & aesthetic approach through the airwaves.

ZABFM 106.6 is the first educational radio with the allotted frequency 106.6 MHz by Pakistan Electronic Media Regulatory Authority (PEMRA) since 20th December 2011 at Islamabad.

It is a non-commercial radio broadcast station, exclusively to impart and disseminate education to the students. The

24/7 programming schedule covers various subjects of life like, career counseling, planning and development, education, infotainment, awareness, research, documentaries, talk shows, sports, travel, science & technology, media, culture & society, technology & inventions, Info tech and social order etc.

Newsletters

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

SZABIST Student Council (SSC)

The SZABIST Student Council (SSC) since its inception in 2015 has been a body of hardworking, ambitious and talented individuals who are elected under the supervision of the Election Commission of SZABIST with members of its work force also selected by means of an entrance test and screening process all on an annual basis to form the student government at the institute. For almost a decade, the philosophy of the student council has been one in congruence with the values espoused in the ideology of SZABIST, those of leadership, art & creativity and tolerance and scientific thought along with serving the community through social work.

Trained to stand by the principles of labour, knowledge and integrity the SSC membership cutting across all degree programs of the institute aims at helping to explore the talents of all students whilst also playing an intermediary role between the administration/management and student body at large, working towards adding value to student life at SZABIST.

At SZABIST, students are offered a range of activities under the pillars of Leadership, Sports, Community Services, Art and Culture and Technical and the institute is fortunate to have a diverse student body, one that boasts a proud history of achievements in the realms of public speaking, sports, entrepreneurship, music and theatre.

All student associations, clubs and student societies are placed under the above mentioned thematic pillars, formed as per a prescribed procedure and work under the aegis of the SZABIST Student Council to conduct a wide range of activities to do with sports, entrepreneurship, performing arts like theatre and music, photography, culture, literature, public speaking, science and technology, engineering and computing, model United Nations, social welfare, leadership workshops and field trips.

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SSC also hosts entertainment events, produces seasonal SSC merchandise (such as shirts, mugs, banners, or any other promotional material) at times, and guides fellow students in addressing issues related to their campus life acting as a forum that becomes the voice of the student body of the institute.

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. To ensure that democratic norms are adhered to, every year proper elections are held for the various offices of these student societies under the supervision of Student Council/ Student Advisor/SZABIST Election Commission.

The following club/societies are currently active on Campus:

| | |
|-----------------|---|
| ACM | Association of Computing Machinery (SZABIST Islamabad, ACM Chapter) |
| AIESEC | Student Exchange Program Facilitation |
| SCS | SZABIST Culture Society |
| SES | SZABIST Entrepreneurial Society |
| SOS | SZABIST Oratory Society |
| SSSS | SZABIST Social Science Society |
| SSS | SZABIST Sports Society |
| ZABLITS | SZABIST Literary Society |
| ZABMUN | Zulfiqar Ali Bhutto Model United Nations |
| CURTAINS | SZABIST Performing Arts Society |
| SWS | SZABIST Welfare Society |
| SBS | SZABIST Business Club |
| SAC | SZABIST Adventure Club |
| SIS | Student Initiative Society |
| ZTS | ZAB TECH Society |
| SDS | SZABIST Debating Society |

National & International Linkages & Collaborations

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

1. International Association of Universities (IAU), Paris
2. Association of Commonwealth Universities (ACU), London
3. The Association to Advance Collegiate School of Business (AACSB), Singapore
4. Federation of the Universities of Islamic World (FUIW), Rabat
5. Asia University Federation (AUF), Seoul
6. Asia-Pacific Quality Network (APQN), People's Republic of China

7. Association of Quality Assurance Agencies of the Islamic World (AQAAIW), Malaysia
8. The Talloires Network, USA
9. Management Association of Pakistan (MAP), Karachi
10. Marketing Association of Pakistan (MAP), Karachi
11. Human Resource Development Network (HRDN), Islamabad

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

1. JS Bank Limited

JS Bank would extend financing to the students and alumni of SZABIST to establish/expand their respective business through the Prime Minister's Youth Business Loan (PMYBL) Scheme.

2. 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.

3. Pakistan Centre for Philanthropy (PCP)

SZABIST signed MOU with PCP on March 27th, 2019 to promote collaboration for academic research and to showcase Pakistani nonprofits through various means including video documentation; to allow the parties to plan educational and training activities of mutual interest. It also aims to provide internship opportunities at PCP to graduate students of SZABIST.

4. Pak-China International Education System(PCIES)

This MoU is aimed at offering Chinese Language course to SZABIST students.

5. ASER — Alliance Pakistan (AAP)

This MoU will enable SZABIST to access insights on disability, technology use, gender parity, parental education etc. A technical-advocacy alliance for benchmarking and assessment of data sets for research and development.

6. Adamjee Life Assurance Company Limited

Adamjee Insurance customers who are students of SZABIST Bachelor programs will enjoy discounts through their Loyalty Card Program.

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7. Higher Education Commission (HEC)

SZABIST signed MOU with HEC on January 15th, 2019 for establishing EDUTV of HEC with studio departments of five universities including SZABIST. SZABIST and HEC ensured continued cooperation on agreed scope of cooperation.

8. Microsoft IT Academy

SZABIST has acquired Microsoft IT Academy program with collaboration of HEC. Students of SZABIST get free training of Computer Science, and IT Infrastructure.

9. The Citizen Foundation

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.

10. EDUCAST (Pvt.) Limited

Under this Agreement SZABIST and EDUCAST will work towards developing projects through funding from Local and International Donors to establish Innovative services for using information and communication technology in development of robotics for education and Training.

11. Istanbul Medipol University, Turkey

This MoU will present numerous opportunities to SZABIST for initiating mutually-rewarding R&D projects, and student & faculty exchange programs.

12. Searle Company Limited

Searle through this MoU aims to recruit SZABIST graduates in an one-year rotational intensive management trainee program. The program will prepare students to gain entry in the job market with the required practical and vocational skills.

13. Association of Chartered Certified Accountants (ACCA)

Under this MoU, SZABIST has acquired 9 courses exemption (F1-F9) for its BS A&F program. This facility is provided by ACCA Global for all SZABIST Campuses. Moreover, the students appearing in professional modules for getting ACCA qualification will be able to get fee discount from ACCA Global.

14. SZABIST and RCCI

SZABIST signed an MOU with Rawalpindi Chamber of Commerce Industry on July 23, 2009. The scope of MOU is aimed at increasing interaction with industry, fostering research & development activities, and providing internship opportunities to SZABIST students

15. SZABIST and ICCI

SZABIST signed an MOU with Islamabad Chamber of

Commerce Industry in April , 2018. The scope of MOU is aimed at increasing interaction with industry, fostering research & development activities, and providing internship opportunities to SZABIST students.

16. National Testing Services (NTS)

As per the MoU, SZABIST MS and PhD students can benefit from NTS Need-Based Scholarships on qualifying NTS General Assessment Test.

17. National ICT R&D Fund

According to this partnership, eligible and deserving students enrolled in ICT-related programs will be provided scholarship covering 100% tuition fee and stipend for lodging, books, transportation, and food.

18. SZABIST and PMI

SZABIST, Islamabad took a giant step forward on June 3rd, 2016 towards enhancing the Project Management program by signing an MoU with Project Management Institute Islamabad Chapter Pakistan (PMI-IPC) for promoting cooperation in exchange of information, joint research and development of academic programs concerning Project Management, and also exchange of experts and researchers. The strategic partnership is expected to be a way forward in bridging the gap between industry and academia.

19. Organization of Pakistani Entrepreneurs of North America (OPEN)

The MoU pertains to jointly establishing a student chapter of OPEN at SZABIST, namely 'OPEN SZABIST Karachi Student Chapter' to promote the spirit of entrepreneurship among Pakistani youth through personality assessment, seminars, work-shops, individual mentoring sessions by qualified professionals, and other related activities.



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20. University of London, UK

SZABIST is a registered center of University of London for providing coaching and preparing the students to appear in the LLB exams conducted by University of London through British Council.



21. CISCO Networking Academy

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



FACULTY OF MANAGEMENT SCIENCES



FACULTY OF MANAGEMENT SCIENCES

The faculty of management sciences at SZABIST equips students for leadership roles in business. SZABIST offers multidisciplinary course work to provide students with an understanding of the functioning and complexities of the corporate world. The course work at SZABIST is an intensive study in the latest curriculum through activity and strategy-based methodology, and offers concentration in Management, Marketing, Finance, Human Resource Management and Supply Chain Management.

PROGRAM AND FACULTY

Every effort has been made to design an academic program at SZABIST which conforms to the standards of internationally recognized universities and caters to the needs of businesses and industry.

Vision

SZABIST Faculty of Management Sciences (FMS) Islamabad aspires to become one of the leading business education institutes in the country for excellence in education and services distinction in research and innovation.

Mission

SZABIST Faculty of Management Sciences is committed to:

- Produce highly qualified business professionals to meet dynamic and challenging contemporary needs.
- Create scientific knowledge and expertise for business and economic solutions.
- Build sustainable environment for corporate and entrepreneurial mindset.
- Serve the community through students, faculty, and alumni collaboration.

FACULTY OF MANAGEMENT SCIENCES

BBA

SZABIST offer a four-year BBA degree program of 144 credit hours. For the BBA program, the students are required to complete 46 courses, 3 credit hours Business Project & 3 credit hours Community Service Project. The courses include 42 compulsory courses and 4 electives from Management, Marketing, Finance and Supply Chain Management. To obtain the BBA degree, the students have to complete 144 credit hours and an internship. The degree needs to be completed within six years.

First Year

Fall Semester

| | |
|--|--|
| BA 1108 IT in Business | |
| BA 1109 Personal Management and Communication | |
| BA 1113 Islamic Studies | |
| BA 1203 Management Principles | |
| BA 1206 Oral Communication and Presentation Skills | |
| BA 2307 Sociology | |

Spring Semester

| | |
|------------------------------------|--|
| BA 1101 Introduction to Accounting | |
| BA 1102 Microeconomics | |
| BA 1105 English Writing Skills | |
| BA 1204 Maths for Business | |
| BA 1213 Pakistan Studies | |
| BA 2312 Human Behavior | |

Second Year

Fall Semester

| | |
|---|---------|
| BA 1201 Financial Accounting | BA 1101 |
| BA 1202 Macroeconomics | BA 1102 |
| BA 1211 Logic and Critical Thinking | BA 1105 |
| BA 2303 Marketing Principles | BA 1203 |
| BA 2406 Business and Electronic Communication | BA 1206 |
| BA 3504 Organizational Behavior | BA 2312 |

Spring Semester

| | |
|--|---------|
| BA 2301 Introduction to Business Finance | BA 1201 |
| BA 2311 Business Statistics | BA 1204 |
| BA 2402 Retail Management | BA 2303 |
| BA 2403 Business Ethics | BA 1203 |
| BA 2408 Cost Accounting | BA 1201 |
| BA 3507 Consumer Behavior | BA 2303 |

Third Year

Fall Semester

| | |
|--|---------|
| BA 3501 Financial Markets and Institutions | BA 1202 |
| BA 3508 Media Management | BA 2303 |
| BA 3605 Statistical Inference | BA 2311 |
| BA 4706 Development Economics | BA 1202 |
| BA 4801 Law and Taxation | BA 1211 |
| BA xxxx University Elective-I (as offered by Campus) | |

Spring Semester

| | |
|---|---------|
| BA 3601 Financial Management | BA 2301 |
| BA 3602 Marketing Management | BA 2303 |
| BA 3603 Business Research Methods | BA 3605 |
| BA 3607 Operations Management | BA 1203 |
| BA 4804 Human Resource Management | BA 3504 |
| BA xxxx University Elective-II (as offered by Campus) | |

Fourth Year

Fall Semester

| | |
|----------------------------|---------|
| BA 3502 Entrepreneurship | BA 1203 |
| BA 4705 Services Marketing | BA 3602 |
| BA 4710 Business Project | BA 3603 |
| BA 4814 Project Management | BA 3607 |
| BA 4xxx Elective-I | |
| BA 4xxx Elective-II | |

Spring Semester

| | |
|--|---------|
| BA 3505 Quantitative Skills | BA 1204 |
| BA 3609 Pakistan Economy | BA 4706 |
| BA 4704 Management Information Systems | BA 1108 |
| BA 4810 Community Service Project | BA 3603 |
| BA 4xxx Elective-III | |
| BA 4xxx Elective-IV | |

FACULTY OF MANAGEMENT SCIENCES

University Electives*(To be offered by the campus as Compulsory courses)

BA 3506 Foreign Languages
BA 3515 Graphic Design for Multimedia*
BA 3519 Current Affairs
BA 3521 Auditing
BA 3522 Social Advocacy and Community Service
BA 3613 World Economy
BA 3614 Business Analysis and Forecasting*
BA 3619 Enterprise Management
BA 3621 Professional Development
BA 4701 Islamic Banking and Finance*
BA 4707 Marketing Research*

ELECTIVES

Finance

BA 4115 Derivatives
BA 4214 Micro Finance
BA 4218 Financial Research
BA 4719 Investment Banking
BA 4724 Financial Modeling
BA 4727 Dynamics of Banking
BA 4734 International Banking
BA 4735 Islamic Banking and Finance*
BA 4752 Financial Reporting and Analysis
BA 4756 Econometrics
BA 4831 Portfolio and Investment
BA 4833 Management Security Analysis
BA 4834 Treasury and Funds Management
BA 4855 Financial Risk Analysis
BA 4867 Business Analysis and Forecasting*
BA 4xxx SAP Financial Accounting Module

Marketing

BA 4116 Supply Chain Management
BA 4125 Emerging Media
BA 4126 Trade Marketing
BA 4217 Experiential Marketing
BA 4707 Marketing Research*
BA 4721 Advertising
BA 4722 Brand Management
BA 4739 Export Marketing
BA 4815 Event Management
BA 4816 Industrial Marketing
BA 4821 Media Planning
BA 4824 Sales Management
BA 4842 Graphic Design for Multimedia*
BA 4859 Product Innovation and Design
BA 4866 Integrated Marketing Communications
BA 4xxx SAP Sales and Distribution Module

Supply Chain Management

BA 4116 Supply Chain Management
BA 4126 Trade Marketing
BA 4211 Production Management
BA 4702 Total Quality Management
BA 4739 Export Marketing
BA 4742 Customer Relationship Management
BA 4764 Dynamics of Logistics and Distribution
BA 4766 Purchase Management
BA 4824 Sales Management
BA 4844 Operations Research
BA 4859 Product Innovation and Design
BA 4xxx SAP Procurement Module

Management

BA 4116 Supply Chain Management
BA 4126 Trade Marketing
BA 4211 Production Management
BA 4702 Total Quality Management
BA 4739 Export Marketing
BA 4742 Customer Relationship Management
BA 4764 Dynamics of Logistics and Distribution
BA 4766 Purchase Management
BA 4824 Sales Management
BA 4844 Operations Research
BA 4859 Product Innovation and Design
BA 4xxx Psychological Contract in Organizations
BA 4xxx SAP Human Capital Module

*Univeristy Elective can be taken as an Elective if not offered by Campus as a compulsory course.

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.

Full-time academic load is 18 credit hours. All students are required to register for full load in the first semester.

INTERNSHIP

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



FACULTY OF MANAGEMENT SCIENCES

BS-Accounting & Finance

BS (A&F) is a four years (eight semesters) program and consists of 144 credit hours. Students are required to complete 46 courses and a 6 credit hours of final year project along with six weeks of internship to graduate. Students completing BS (A&F) will get an exemption in ACCA modules from F1 to F9. The maximum duration to complete this program is six years.

First Year

| Fall Semester | Pre-Req. |
|--|----------|
| AF 1101 Business Mathematics | |
| AF 1102 Computer Concepts and Applications | |
| AF 1104 Introduction to Financial Accounting | |
| AF 1105 Pakistan Studies | |
| AF 1203 Communication Skills | |
| AF 1205 Islamic Studies/Humanities | |

Spring Semester

| | |
|--|---------|
| AF 1103 English Comprehension | AF 1203 |
| AF 1201 Advanced Financial Accounting | AF 1104 |
| AF 1207 Business Management and Ethics | |
| AF 2303 Introduction to Psychology | |
| AF 2304 Introduction to Sociology | |
| AF 2405 Principles of Microeconomics | |

Second Year

| Fall Semester | Pre-Req. |
|--|----------|
| AF 1202 Calculus for Business Studies | AF 1101 |
| AF 1206 Principles of Marketing | |
| AF 2302 Cost Accounting | AF 1201 |
| AF 2305 Organizational Behavior | AF 1207 |
| AF 3505 Principles of Macroeconomics | AF 2405 |
| AF 4703 Introduction to Business Finance | |

Spring Semester

| | |
|--|---------|
| AF 2301 Business and Technical English Writing | AF 1103 |
| AF 2401 Management Accounting | AF 2302 |
| AF 2402 Management Information Systems | |
| AF 2404 Money and Banking | AF 3505 |
| AF 2406 Statistics and Probability | |
| AF 3501 Accounting and Financial Information Systems | |

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.

Full-time academic load is 18 credit hours. All students are required to register for full load in the first semester.

Third Year

| Fall Semester | Pre-Req. |
|--|----------|
| AF 3502 Auditing-I | |
| AF 3506 Statistical Inference | AF 2406 |
| AF 3507 Financial Institutes and Markets | AF 2404 |
| AF 3606 Taxation | |
| AF 3607 Corporate Accounting | AF 2401 |
| AF 3608 Islamic Banking and Finance | |

Spring Semester

| | |
|---|---------|
| AF 2403 Marketing Management | AF 1206 |
| AF 3605 Financial Reporting | AF 3607 |
| AF 3609 Business Research Methodologies | AF 3506 |
| AF 3611 Auditing-II | AF 3502 |
| AF 4701 Business and Labor Law | |
| AF 4702 Financial Management | AF 4703 |

Fourth Year

| Fall Semester | Pre-Req. |
|-------------------------------|----------|
| AF 1204 Introduction to HRM | AF 2305 |
| AF 3603 e-Commerce | |
| AF 4707 Company Law | |
| AF 4801 Corporate Finance | AF 4702 |
| AF xxxx Finance Elective-I | |
| AF xxxx Accounting Elective-I | |

Spring Semester

| | |
|--|---------|
| AF 2306 Pakistan Economic Policy | AF 3505 |
| AF 3504 Entrepreneurship and Small Business Management | |
| AF 4802 Final Project | AF 3609 |
| AF xxxx Accounting Elective-II | |
| AF xxxx Finance Elective-II | |

INTERNSHIP

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

FACULTY OF MANAGEMENT SCIENCES

ELECTIVES

Accounting

AF 4721 Advance Audit and Assurance
AF 4722 Advance Performance Management
AF 4723 Forensic Accounting
AF 4821 Public Sector Accounting
AF 4822 Strategic Business Reporting

Finance

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 4823 Financial Risk Analysis
AF 4824 Financing of SME
AF 4825 International Finance
AF 4826 Quantitative Data Analysis

MBA

For students with 4-year non-business degree/16-years of education, the duration of the MBA program is 2 years. Twenty-two courses (66 credits) and Business Research Project (6 credits) or Thesis (6 credit hours) are needed to graduate. Students are also required to complete a six-week internship. The maximum duration to complete this degree is 4 years.

First Year

Fall Semester

Pre-Req.

| | |
|---|--|
| BA 5106 Marketing Management* | |
| BA 5301 Financial Accounting* | |
| BA 5404 Microeconomics* | |
| BA 5418 Managerial Communication* | |
| BA 5419 Business Management and Ethics* | |
| BA 5xxx Business Mathematicss and Statistics* | |

Second Year

Fall Semester

Pre-Req.

| | |
|--|------------------|
| BA 5105 Financial Management* | BA 5401, BA 5301 |
| BA 5203 Strategic Marketing | BA 5106, BA 5205 |
| BA 5308 International Business | |
| BA 5601 Strategic HRM | BA 5205 |
| BA 5606 Business Research Project-I (3 Credits) OR | BA 5501 |
| BA 5607 Thesis-I (3 Credits) | |
| BA 5xxx Elective-I | |

Spring Semester

| | |
|---|---------|
| BA 5205 Human Resource Management* | BA 5419 |
| BA 5401 Introduction to Business Finance* | |
| BA 5402 Macroeconomics* | |
| BA 5405 Statistical Inference* | |
| BA 5411 Cost and Management Accounting* | BA 5301 |
| BA 5501 Applied Research Methods | |

Spring Semester

| | |
|--|------------------|
| BA 5104 Strategic Management | BA 5106, BA 5205 |
| BA 5208 Strategic Finance | |
| BA 5509 Business Research Project-II(3 Credits) OR | |
| BA 5109 Thesis-II (3 Credits) | |
| BA 5xxx Elective-II | |
| BA 5xxx Elective-III | |
| BA 5xxx Elective-IV | |

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.

A student may take Business Research Project or Thesis.

*Exempt courses for BBA and Equivalent degree holders

FACULTY OF MANAGEMENT SCIENCES

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

First Year

Fall Semester

| | Pre-Req. |
|----------------------------------|----------|
| BA 5501 Applied Research Methods | |
| BA 5104 Strategic Marketing | |
| BA 5601 Strategic HRM | |
| BA 5208 Strategic Finance | |

Spring Semester

| | Pre-Req. |
|--|----------|
| BA 5203 Strategic Management | |
| BA 5xxx Elective-I | |
| BA 5xxx Elective-II | |
| BA 5506 Business Research Project-I OR | BA 5501 |
| BA 5507 Thesis-I | BA 5501 |

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.

Second Year

Fall Semester

| | Pre-Req. |
|---|----------|
| BA 5308 International Business | |
| BA 5xxx Elective-III | |
| BA 5xxx Elective-IV | |
| BA 5606 Business Research Project-II OR | BA 5501 |
| BA 5607 Thesis-II | BA 5501 |

A student may take either Business Research Project or Thesis.



FACULTY OF MANAGEMENT SCIENCES

ELECTIVES

Finance

| | |
|---------|---------------------------------------|
| BA 5131 | Advance Financial Management |
| BA 5132 | Analysis of Financial Statements |
| BA 5133 | Corporate Finance |
| BA 5134 | Derivatives |
| BA 5135 | Financial Markets and Institutions |
| BA 5137 | International Banking |
| BA 5138 | Econometrics |
| BA 5139 | Financial Risk Analysis |
| BA 5151 | International Finance |
| BA 5155 | Mergers and Acquisitions |
| BA 5175 | Banking Operations |
| BA 5179 | Commodity Pricing |
| BA 5184 | Financial Product Regulations |
| BA 5187 | Business Analysis and Forecasting |
| BA 5192 | Financial Management Policy |
| BA 5229 | Financial Modeling |
| BA 5231 | Islamic Banking and Finance |
| BA 5232 | Portfolio and Investment Management |
| BA 5235 | Treasury and Funds Management |
| BA 5244 | Investment Banking |
| BA 5254 | Fundamentals of Financial Engineering |
| BA 5262 | Behavioral Finance |
| BA 5273 | Prudential Regulations |
| BA 5278 | Banking Crises and Management |
| BA 5284 | Theory and Practice of Lending |
| BA 5294 | Venture Capital and Private Equity |
| BA 5298 | Financial Reporting and Analysis |
| BA 5xxx | SAP Financial Accounting Module |

Human Resource Management

| | |
|---------|---|
| BA 5114 | Leadership and Motivation Techniques |
| BA 5117 | Performance Appraisal |
| BA 5118 | Compensation Management |
| BA 5159 | Salary and Compensation |
| BA 5164 | Human Resources Information Systems |
| BA 5165 | Job Analysis and Design |
| BA 5167 | Talent Management and Succession Planning |
| BA 5185 | Leadership Development |
| BA 5193 | HR Operations and Business Partnering |
| BA 5196 | Conflict Resolution |
| BA 5215 | Recruitment and Selection |
| BA 5216 | Training and Development |
| BA 5239 | HR Policy Development |
| BA 5251 | Human Resource Development |
| BA 5285 | Performance Management |

| | |
|---------|--|
| BA 5292 | HR Analytics |
| BA 5297 | Human Capital Development and Analytics |
| BA 5332 | Contemporary Issues in Human Resource Management |
| BA 5335 | Human Resource Audit |
| BA 5435 | Human Resource Management and Technology |
| BA 5xxx | Psychological Contract in Organizations |
| BA 5xxx | SAP Human Capital Module |

Management

| | |
|---------|---|
| BA 5111 | Business Process Re-engineering |
| BA 5112 | Change Management |
| BA 5113 | Industrial Management and Labor Relations |
| BA 5116 | Industrial Relations and Labor Laws |
| BA 5136 | Business Strategy and Policy |
| BA 5152 | Event Management |
| BA 5172 | Entrepreneurial Business Strategy |
| BA 5213 | Project Management |
| BA 5242 | Lean Six Sigma Manufacturing |
| BA 5295 | Crisis Management |
| BA 5333 | Business Theory |
| BA 5334 | Corporate Sustainability |
| BA 5433 | Business Application |
| BA 5434 | Hospitality and Tourism Management |

Marketing

| | |
|---------|-------------------------------------|
| BA 5121 | Advertising |
| BA 5122 | Brand Management |
| BA 5123 | Consumer Behavior |
| BA 5124 | Customer Relationship Management |
| BA 5126 | Export Marketing |
| BA 5127 | Global Marketing |
| BA 5129 | Services Marketing |
| BA 5171 | Strategic Advertising |
| BA 5182 | Trade Marketing |
| BA 5186 | Social Marketing |
| BA 5199 | Integrated Brand Communication |
| BA 5217 | Industrial Marketing |
| BA 5224 | Media Planning and Management |
| BA 5225 | Personal Selling |
| BA 5226 | Pharmaceutical Marketing |
| BA 5227 | Sales Management |
| BA 5228 | Retail Management |
| BA 5246 | Public Relations |
| BA 5256 | Integrated Marketing Communications |
| BA 5259 | Emerging Media |



FACULTY OF MANAGEMENT SCIENCES

- BA 5264 Interactive Global and Regional Marketing
- BA 5269 Marketing Intelligence
- BA 5141 Public Relations Management
- BA 5198 Experiential and Content Marketing
- BA 5281 Digital Marketing
- BA 5286 Media Marketing
- BA 5293 New Product Development
Process and Innovation
- BA 5296 Rural Marketing
- BA 5299 Media Management
- BA 5331 Marketing Analytics
- BA 5336 Retail Buying and Merchandising
- BA 5337 Retail Strategy and Structure
- BA 5339 Packaging for Brands
- BA 5436 Retail Operation
- BA 5437 Retail Supply Chain Management
- BA 5438 Marketing Practices in Pakistan
- BA 5xxx SAP Sales and Distribution Module



Supply Chain Management (SCM)

- BA 5142 Materials Management
- BA 5191 Advance Manufacturing and
TPM in SCM
- BA 5194 Supply Chain Finance
- BA 5214 Supply Chain Management
- 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 5291 Detailed Scheduling and
Planning in SCM
- BA 5338 Shipping in SCM
- BA 5431 Supply Chain Operations
- BA 5432 Green Supply Chain Management
- BA 5xxx SAP Procurement Module



Internship

All MBA students are required to complete a 6-week internship. Completion of internship is a degree requirement for MBA program. Students can produce their current employment record as an alternative to the internship program provided such employment experience is recognized by SZABIST. SZABIST has a separate internship and placement department (EDC) that supports students in finding a suitable opportunity for their internship.



FACULTY OF MANAGEMENT SCIENCES

Professional MBA

The PMBA is a one-year program spread over two semesters and consists of 33 credit hours of teaching. Ten taught courses and a business project must be completed. Each semester is of four months' duration. The candidate registers for five/six courses offered every semester to complete the degree within one year. The PMBA is equivalent to Post Graduate Diploma as per HEC guidelines.

First Year

Fall Semester

| | Pre-Req. |
|---|----------|
| BE 5101 Accounting for Business | |
| BE 5102 Business Management | |
| BE 5103 Contemporary Marketing | |
| BE 5104 Managerial Communication | |
| BE 5105 Quantitative Analysis for Decision Making | |

Second Year

Fall Semester

| | Pre-Req. |
|----------------------------------|----------|
| BE 5201 Applied Research Methods | BA 5105 |
| BE 5202 Business Finance | BA 5101 |
| BE 5204 Managerial Economics | |
| BE 5205 Marketing Management | BA 5103 |
| BE 5206 Organizational Behavior | BA 5102 |
| BE 5309 Business Project | |

Executive MBA

The EMBA is a 2-year program spread over four semesters and consists of 66 credit hours of teaching. Twenty courses (60 credit hours), one Business Project (3 credits) and one Research Project (3 credits) are needed to graduate. Maximum time limit to complete the EMBA degree is 4 years.

First Year

Fall Semester

| | Pre-Req. |
|---|----------|
| BE 5101 Accounting for Business | |
| BE 5102 Business Management | |
| BE 5103 Contemporary Marketing | |
| BE 5104 Managerial Communication | |
| BE 5105 Quantitative Analysis for Decision Making | |

Second Year

Fall Semester

| | Pre-Req. |
|--|----------|
| BE 5203 Managerial Accounting and Control | BE 5101 |
| BE 5301 Financial Management | |
| BE 5302 Human Resource Management | BA 5206 |
| BE 5303 Operations and Supply Chain Management | BE 5102 |
| BE 5309 Business Project | BE 5201 |
| BE 5xxx Elective-I (Marketing, HR, Finance and Supply Chain) | |

Fall Semester

| | |
|----------------------------------|---------|
| BE 5201 Applied Research Methods | BE 5105 |
| BE 5202 Business Finance | BE 5101 |
| BE 5204 Managerial Economics | |
| BE 5205 Marketing Management | BE 5103 |
| BE 5206 Organizational Behavior | BE 5102 |

Fall Semester

| | |
|--|---------------------------|
| BE 5401 Entrepreneurship and Family Businesses | BE 5102 |
| BE 5402 Ethics and Corporate Governance | BE 5102 |
| BE 5403 Strategic Management | BE 5202, BE 5102, BE 5302 |
| BE 5409 Research Project | BE 5201 |
| BE 5xxx Elective-II (Marketing, HR, Finance and Supply Chain) | |
| BE 5xxx Elective-III (Marketing, HR, Finance and Supply Chain) | |

FACULTY OF MANAGEMENT SCIENCES

ELECTIVES

Marketing

- BE 5xxx Services Marketing
- BE 5xxx Retail Management
- BE 5xxx Media Planning and Management
- BE 5xxx Advertising
- BE 5xxx Brand Management
- BE 5xxx Consumer Behavior
- BE 5xxx Customer Relationship Management
- BE 5xxx Integrated Marketing Communications
- BE 5xxx Digital Marketing
- BE 5xxx Emerging Media
- BE 5xxx Experiential and Content Marketing
- BE 5xxx Export Marketing
- BE 5xxx Global Marketing

Finance

- BE 5xxx International Banking and Finance
- BE 5xxx Corporate Finance
- BE 5xxx Islamic Banking and Finance
- BE 5xxx Analysis of Financial Statements
- BE 5xxx Portfolio and Investment Management
- BE 5xxx Project Evaluation
- BE 5xxx Banking Operations
- BE 5xxx Financial Modeling
- BE 5xxx Portfolio and Investment Management
- BE 5xxx Treasury and Funds Management

Human Resource Management

- BE 5xxx Leadership and Motivational Techniques
- BE 5xxx Compensation Management
- BE 5xxx Recruitment and Selection
- BE 5xxx Performance Appraisal
- BE 5xxx Training and Development
- BE 5xxx Conflict Resolution
- BE 5xxx Crisis Management
- BE 5xxx HR Analytics
- BE 5xxx Salary and Compensation
- BE 5xxx Talent Management and Succession Planning

Supply Chain Management

- BE 5xxx Supply Chain Management
- BE 5xxx Dynamics of Logistics and Distribution
- BE 5xxx Operational Planning in Supply Chain
- BE 5xxx Strategic Procurement in SCM
- BE 5xxx Advance Manufacturing and TPM in SCM
- BE 5xxx Detailed Scheduling and Planning in SCM
- BE 5xxx Execution and Control of Operations in SCM
- BE 5xxx Supply Chain Finance

The University reserves the right to change its programs and policies at any time without prior notification.

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.



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MHRM

The Master in Human Resource Management program is designed for those who have functional responsibility to carry out the duties of an organization's human resource department. The student is required to complete 33 credit hours of course work within one full calendar year. The maximum time period to complete the degree is four years.

First Year

| | |
|---|--|
| HR 5101 Advanced Recruitment & Selection | |
| HR 5102 Advanced Rewards and Performance Management | |
| HR 5102 Advanced Training and Development | |
| HR 5203 International Human Resource Management | |
| HR 5319 Institutional Effectiveness & Global Governance in HR | |

Second Year

| | |
|---|--|
| HR 5204 Advanced Topics in Organizational theory & Behavior | |
| HR 5309 Final Project | |
| HR 5322 Knowledge Management | |
| HR 53xx Elective-I | |
| HR 53xx Elective-II | |
| HR 53xx Elective-III | |

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.

ELECTIVES

- HR 5311 Advanced Topics in Organizational Behavior
- HR 5312 Communication Strategies at Workplace
- HR 5313 Continuous Professional Development
- HR 5314 Employee Engagement Strategies
- HR 5315 Employee Retention
- HR 5316 Ergonomics at workplace
- HR 5317 Human Resource Information Management
- HR 5318 Innovation and Change Management
- HR 5321 ISOs Certification
- HR 5322 Knowledge Management
- HR 5323 Learning Organization
- HR 5324 Organization Restructuring
- HR 5325 Organizational Development
- HR 5326 QR Strategies and Legality
- HR 5327 Quality Assurance Management
- HR 5328 Rewards and Performance Management
- HR 5329 Supply Chain Management
- HR 5331 Talent Management
- HR 5332 Total Quality Management
- HR 5333 Work and Organization
- HR 5334 Workforce Diversity
- HR 5335 Workload Balance
- HR 5336 Change Management
- HR 5337 Strategic Human Resource Management



FACULTY OF MANAGEMENT SCIENCES

Masters in Project Management

The Masters in Project Management is designed to enable individuals to manage complex projects of today through modern project management approaches. MPM is a 1-year program comprising of 30 credit hours spread over two semesters. Ten courses are required to graduate. The maximum time to complete the degree is 4 years. There are two intakes in a year and roadmap for each intake follows as under:

Fall Intake

Fall Semester

| | |
|--|--|
| PM 5102 Fundamentals of Project Management | |
| PM 5104 Cost and Financial Management for Project Management | |
| PM 5105 Project Scope Management | |
| PM 5201 Project Scheduling, Planning and Time Management | |
| PM 5301 Project Quality Management | |

Spring Semester

| | |
|--|--|
| PM 5351 Project Risk Management | |
| PM xxxx Software Tools for Project Management* | |
| PM xxxx Elective-I | |
| PM xxxx Elective-II | |
| PM 5209 Project | |

* Computer based training course

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.

Spring Intake

Spring Semester

| | |
|--|--|
| PM 5102 Fundamentals of Project Management | |
| PM 5104 Cost and Financial Management for Project Management | |
| PM 5105 Project Scope Management | |
| PM 5201 Project Scheduling, Planning and Time Management | |
| PM 5301 Project Quality Management | |

Fall Semester

| | |
|--|--|
| PM 5351 Project Risk Management | |
| PM xxxx Software Tools for Project Management* | |
| PM xxxx Elective-I | |
| PM xxxx Elective-II | |
| PM 5209 Project | |

ELECTIVES

PM 5151 Enterprise Resource Planning
 PM 5152 Innovation and Technology Management
 PM 5152 Project Change Management
 PM 5251 Procurement and Contract Management
 PM 5253 Project Human Resource Management
 PM 5255 Project Change and Risk Management
 PM 5257 Simulation for Project Management
 PM 5303 Project Monitoring, Evaluation and Control Management
 PM 5352 Project Stakeholders Management
 PM 5353 Project Methods for Project Managers
 PM 5354 Leadership Team and Communication for Project Management
 PM 5355 Project Communication, Reporting & Presentation
 PM 5xxx Governance, Monitoring and Evaluation of Development
 PM 5xxx Project Program and Portfolio Management

FACULTY OF MANAGEMENT SCIENCES

Master of Science in Project Management

There are two academic streams available for MSPM. The students are required to complete 8 courses and 2 Independent Research Studies (IRS), or a thesis, with a total of 30 credit hours as a part of Research based stream. Alternatively, students may opt for 30 credit hours of Coursework based stream by taking only 10 courses. The breakup of 30 credit hours under each stream is as follows:

Coursework Based Stream

- Four compulsory courses (12 credit hours)
- Six elective courses (18 credit hours)

First Year

Fall Semester

| | Pre-Req. |
|--|----------|
| MP 5107 Fundamentals of Project Management | |
| MP 5202 Quantitative Tools for Research | |
| MP 5xxx Elective-I | |

Spring Semester

| | |
|-------------------------------------|--|
| MP 5103 Research Methodology | |
| MP 5105 Advanced Project Management | |
| MP 5xxx Elective-II | |
| MP 5xxx Elective-III | |

Second Year

Fall Semester

| | |
|---------------------|--|
| MP 5xxx Elective-IV | |
| MP 5xxx Elective-V | |
| MP 5xxx Elective-VI | |

ELECTIVES

- MP 5102 Project Management Constraints
- MP 5103 Operations Research
- MP 5201 Quality Management Tools
- MP 5205 Theories of Management
- MP 5215 Human Resource Management Communication
- MP 5217 Financial Decision Analysis
- MP 5218 Software Project Management
- MP 5314 Project Review, Assurance and Governance
- MP 5317 Supply Chain Management
- MP 5318 Business Analysis
- MP 5324 Risk Management Dynamics
- MP 5325 Project Simulation
- MP 5328 Project Risk Management

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.

Research Based Stream

- Four compulsory courses (12 credit hours)
- Four elective courses (12 credit hours)
- Two Independent Research Studies (6 credit hours)
OR Thesis (6 credit hours)

First Year

Fall Semester

| | Pre-Req. |
|--|----------|
| MP 5107 Fundamentals of Project Management | |
| MP 5202 Quantitative Tools for Research | |
| MP 5xxx Elective-I | |

Spring Semester

| | |
|-------------------------------------|--|
| MP 5103 Research Methodology | |
| MP 5105 Advanced Project Management | |
| MP 5xxx Elective-II | |
| MP 5xxx Elective-III | |

Second Year

Fall Semester

| | |
|--|---------------|
| MP 5111 Independent Research Study - I | MP 5103, 5202 |
| MP 5211 Independent Research Study-II | MP 5103, 5202 |
| MP 5xxx Elective-IV | |

Spring Semester (Only for Thesis students)*

| | |
|------------------|---------------|
| MP 5xxx Thesis I | MP 5103, 5202 |
|------------------|---------------|

Third Year

Fall Semester (Only for Thesis students)*

| | |
|-------------------|----------|
| MP 5xxx Thesis II | Thesis I |
|-------------------|----------|

*Thesis may be taken in place of IRS-I & IRS-II. Independent Research Study (IRS-I & II) can be opted in one semester simultaneously. However, thesis must be registered in two different semesters, for three credit hours each. Thesis can start only after 24 credit hours have been completed.

Students cannot register in Independent Research Study (IRS) or Thesis without completion of Research Methodology and Quantitative Tools for Research.

FACULTY OF MANAGEMENT SCIENCES

Regular course load for the program is 3+4+3 courses. Summer is not a regular semester. Therefore, courses are not offered on a regular basis in summer.

MSPM students may switch to MPM program after admissions before third week of first semester.

MS (Project Management) Bridge Arrangement

This arrangement allows MPM graduates to enhance their academic qualification. For MPM graduates, a maximum of six courses can be transferred to MSPM program; subject to passing the courses with a minimum 2.75 grade points and on surrendering the MPM degree. Project and Software Tools for Project Management are not transferrable towards MSPM degree completion requirements for MPM graduates under upgradation program.

Master of Science in Management Sciences

There are two streams available for Master of Science. 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 required to be completed. The time limit to earn MS degree is from 1.5 to 4 years. The details of two streams is as follows:

1. MS By Course Work Stream

The Scheme of Study is as follows:

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

Compulsory Courses

MS 5104 Strategic Marketing Decisions
MS 5137 Research Methods and Techniques
MS 5204 Quantitative Tools for Research
MS 5238 Strategic Human Resource Development
MS 5318 Strategic Finance
MS 5xxx Applied Strategic Management

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

- Finance
- Marketing
- Human Resource Management

2. MS By Research Work Stream

The Scheme of Study is as follows:

- Six Compulsory Courses
- Two Electives
- Two IRS or Thesis

Compulsory Courses

MS 5104 Strategic Marketing Decisions
MS 5137 Research Methods and Techniques
MS 5204 Quantitative Tools for Research
MS 5238 Strategic Human Resource Development
MS 5318 Strategic Finance
MS 5xxx Applied Strategic Management

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

- Finance
- Marketing
- Human Resource Management

First Year

Fall Semester

| | |
|--|--|
| MS 5104 Strategic Marketing Decisions | |
| MS 5137 Research Methods and Techniques | |
| MS 5238 Strategic Human Resource Development | |
| MS 5xxx Applied Strategic Management | |

First Year

Fall Semester

| | |
|--|--|
| MS 5104 Strategic Marketing Decisions | |
| MS 5137 Research Methods and Techniques | |
| MS 5238 Strategic Human Resource Development | |
| MS 5xxx Applied Strategic Management | |

FACULTY OF MANAGEMENT SCIENCES

Spring Semester

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

Second Year

Fall Semester

| | |
|----------------------|--|
| MS 5xxx Elective III | |
| MS 5xxx Elective IV | |

ELECTIVES

Finance

| | |
|---------|--|
| MS 5103 | Managerial Economics |
| MS 5105 | Econometrics |
| MS 5111 | Derivatives and Financial Risk |
| MS 5113 | Financial Time Series |
| MS 5115 | Operations and Mathematical Modeling |
| MS 5134 | Behavioral Finance |
| MS 5206 | Modern Financial Applications |
| MS 5215 | Corporate Finance |
| MS 5217 | Corporate Finance Planning and Decisions |
| MS 5218 | Financial Markets |
| MS 5237 | Business Finance and Decision Making |
| MS 5317 | Seminars in Finance |
| MS 5414 | Applied Econometrics |
| MS 5421 | Capital Asset Pricing Model |
| MS 5425 | Empirical Asset Pricing |
| MS 5xxx | Mathematical Modelling in Finance |
| MS 5xxx | Intermediate Islamic Banking and Finance |

Marketing

| | |
|---------|-------------------------------------|
| MS 5249 | Advanced Marketing Strategies |
| MS 5301 | Seminars in Marketing |
| MS 5422 | Distribution and Channel Management |
| MS 5424 | Strategic Brand Management |

Human Resource Management

| | |
|---------|---|
| MS 5101 | Change Management |
| MS 5102 | Organizational Development |
| MS 5202 | Organizational Strategies and Effectiveness |

Spring Semester

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

Second Year

Fall Semester

Pre-Req.

| | |
|---|--------------------------------------|
| MS 5119 Independent Research Study - I | MS 5137, MS 5304 MS 5416, MS 5131 |
| MS 5219 Independent Research Study - II | MS 5137, MS 5204 MS 5416, MS 5131 |

OR

Fall Semester (Only for Thesis Students)

| | |
|-------------------------|--------------------------------------|
| MS 5xxx Thesis (Part I) | MS 5137, MS 5204 MS 5416, MS 5131 |
|-------------------------|--------------------------------------|

Spring Semester (Only for Thesis Students)

| | |
|--------------------------|----------|
| MS 5xxx Thesis (Part II) | Thesis-I |
|--------------------------|----------|

| | |
|---------|---|
| MS 5203 | Global Corporate Strategy |
| MS 5205 | International Business Management |
| MS 5211 | Creative Leadership |
| MS 5216 | Corporate Governance |
| MS 5225 | Leadership and Motivation Techniques |
| 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 |
| MS 5415 | NGO Management |
| MS 5423 | Global Governance and Development |
| MS 5xxx | Seminars in HRM |

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.

Students can register in Independent Research Study (IRS) after completing six compulsory courses.

Students can take thesis only after completing 24 credit hours course work

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 Student can take maximum two interdisciplinary elective courses in SS/CS/MBA program with the prior approval of respective program managers.

FACULTY OF MANAGEMENT SCIENCES

PhD Management Science

For PhD Program, Students are required to complete 48 credit hours. Five courses of 3 credit hours each, one Independent Research Study of 3 Credit Hours and One dissertation of 30 credit hours are required. Following are the important points for PhD in Management Sciences.

- There are two compulsory courses in PhD i.e. Advanced Research Methods and Techniques and Advanced Quantitative Tools for Research.
- Students cannot register in IRS before completing all compulsory courses.
- Candidate may be given prerequisite/deficiency courses or thesis which will be decided by the Interview Board at the time of admission.
- Prerequisite Courses are non-credit courses.
- The student will not be allowed to register in PhD courses before completing prerequisite courses/thesis if any.
- Dissertation of 30 Credit Hours is Compulsory.
- Registration in Dissertation is allowed after passing Comprehensive Examination and maintaining minimum CGPA requirement.
- All the requirements of HEC pertaining to PhD must be fulfilled these are;
 - Passing GAT Subject with minimum 60% at the time of admission,
 - Maintaining minimum CGPA requirement for each course and for entire program.
 - Passing Comprehensive examination to establish the PhD candidacy (maximum 2 attempts allowed).
 - Publishing one Research Paper from the theses in W,X, and Y-category journal before the completion of 30 Credit Hours Dissertation.
- Elective Courses to be selected from the specialized area of Marketing, Finance and Human Resource Management.
- Maximum Course Load for each Semester is 9 Credit Hours.
- Time duration for PhD is Minimum 3 years and Maximum 8 years.
- All General guidelines mentioned in DOCTORAL DEGREE PROGRAMS are applicable on PhD-Management Science.

First Year

| Fall Semester | Pre-Req. |
|--|----------|
| MS 6106 Advanced Research Methods and Techniques | |
| MS 6216 Advanced Quantitative Tools for Research | |
| MS 6xxx Elective I | |

Spring Semester

| | |
|------------------------------------|------------------|
| MS 6xxx Elective-II | |
| MS 6xxx Elective-III | |
| MS 6xxx Independent Research Study | MS 6106, MS 6216 |

Second Year

Fall Semester

| | |
|--|--|
| MS 6xxx Dissertation (Proposal in One or Two Semester) | |
|--|--|

Spring Semester

| | |
|----------------------|--|
| MS 6xxx Dissertation | |
|----------------------|--|

Third Year

Fall Semester

| | |
|----------------------|--|
| MS 6xxx Dissertation | |
|----------------------|--|

Spring Semester

| | |
|----------------------|--|
| MS 6xxx Dissertation | |
|----------------------|--|

ELECTIVES

Finance

- MS 6111 Business Finance and Decision Making
- MS 6113 Applied Econometrics
- MS 6202 Econometrics
- MS 6315 Capital Asset Pricing Model
- MS 6317 Empirical Asset Pricing
- MS 6318 Financial Markets
- MS 6319 Modern Financial Applications
- MS 6322 Behavioral Finance
- MS 6323 Corporate Finance
- MS 6325 Seminars in Finance
- MS 6411 Financial Time Series
- MS 6418 Operations and Mathematical Modeling
- MS 6421 Corporate Finance Planning and Decision

FACULTY OF MANAGEMENT SCIENCES

- MS 6422 Derivatives and Financial Risk
- MS 6423 Managerial Economics
- MS 6xxx Strategic Finance
- MS 6xxx Intermediate Islamic Banking and Finance

Marketing

- MS 6204 Strategic Marketing Decisions
- MS 6215 Seminars in Marketing
- MS 6312 Advanced Marketing Strategy
- MS 6316 Distribution and Channel Management
- MS 6415 Strategic Brand Management
- MS 6xxx Strategic Social Marketing
- MS 6xxx Marketing Metrics
- MS 6xxx Global Marketing Strategies
- MS 6xxx Strategic Entrepreneurial Marketing

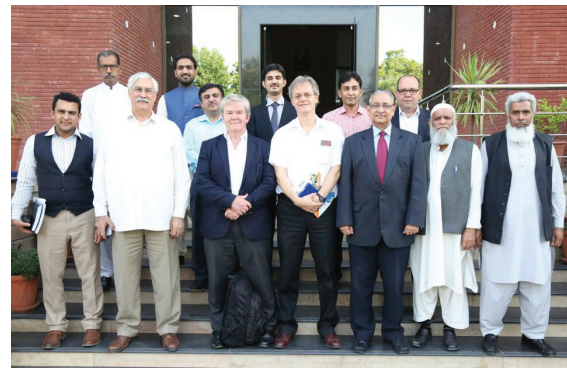
Human Resource Management

- MS 6112 Strategic Human Resource Development
- MS 6114 NGO Management
- MS 6201 Change Management
- MS 6205 Public Administration and Governance
- MS 6211 Organizational Development
- MS 6311 Corporate Governance
- MS 6314 Global Corporate Strategy
- MS 6321 Organizational Strategies and Effectiveness
- MS 6324 Issues in Strategic Management
- MS 6412 Creative Leadership
- MS 6413 International Business Management
- MS 6414 Global Governance and Development
- MS 6416 Negotiations and Conflict Resolution
- MS 6417 Leadership and Motivation Techniques
- MS 6419 System Thinking and Organizational Learning
- MS 6424 Strategic Management
- MS 6xxx Seminars in HRM

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.

Course registration is subject to course offering as per Zabdesk each semester. The above course plan is tentative for basic understanding. Students can register in any number of offered course/s but not exceeding 3 courses (9 credit hours) per semester. One extra course can be allowed depending on the approval of program manager. Summer is not a regular semester and no fresh registration is offered during Summer.

A Student can take maximum two interdisciplinary elective courses in SS/CS/MBA program with the prior approval of respective program managers.



FACULTY OF COMPUTING AND ENGINEERING SCIENCES



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

BS (Computer Science) & BS (Software Engineering) programs are offered by the Department of Computer Science which runs under the Faculty of Computing and Engineering Sciences. The objective of the offered programs is to inculcate a broad-based rudimentary education in Computer Science. The students would acquire sufficient fundamental knowledge to adapt quickly to the changes that are occurring and will continue to occur during their professional careers. The programs involve analysis, development and implementation of mathematical algorithms to solve computational problems, understanding computer electronics, study of operating systems, languages, compilers, data communication and networks, solving complex computing problems, designing man-to-machine interfaces, security, mobile computing and so on.

The department also offers MS Data Science, MS & PhD programs in Computer Science as well.

SZABIST believes in conceptual & practical learning. It has developed an organizational network of reputable multinational and national enterprises for collaboration in Computing. SZABIST runs its own software house, which facilitates students to meet the desired objectives and learning outcomes.

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

BS Computer Science

The program is offered through a well-trained foreign qualified faculty. It consists of 40 courses (five courses per semester) with a total of 130 credit hours. BSCS Program is accredited by National Computing Education & Accreditation Council (NCEAC). The maximum time to complete the degree is six years.

BS (Computer Science) COURSE PLAN/ROADMAP

| Codes | Course Title | Cr.Hrs. | | 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 1107 | Applied Physics | 2,0 | 2 | |
| CSCL 1107 | Lab : Applied Physics | 0,1 | 1 | |
| CSC 1108 | Introduction to Computer Science | 2,0 | 2 | |
| CSCL 1108 | Lab : Introduction to Computer Science | 0,1 | 1 | |
| 16 | | | | |
| Spring Semester | | | | |
| CSC 1208 | Object Oriented Programming Techniques | 3,0 | 3 | CSC 1103 |
| CSCL 1208 | Lab: Object Oriented Programming Techniques | 0,1 | 1 | |
| CSC 2101 | Communication and Presentation Skills | 3,0 | 3 | CSC 1102 |
| CSC 2103 | Digital Logic Design | 3,0 | 3 | CSC 1107 |
| CSCL 2103 | Lab: Digital Logic Design | 0,1 | 1 | |
| CSC 2105 | Statistics and Probability | 3,0 | 3 | |
| CSC xxxx | University Elective-1 | 3,0 | 3 | |
| 17 | | | | |
| Second Year | | | | |
| Fall Semester | | | | |
| CSC 1201 | Discrete Mathematical Structures | 3,0 | 3 | |
| CSC 2102 | Data Structures and Algorithms | 3,0 | 3 | CSC 1208 |
| CSCL 2102 | Lab: Data Structures and Algorithms | 0,1 | 1 | |
| CSC 2201 | Computer Organization and Assembly Language | 3,0 | 3 | |
| CSCL 2201 | Lab: Computer Organization and Assembly Language | 0,1 | 1 | |
| CSC 4102 | Professional Practices | 3,0 | 3 | |
| CSC xxxx | CS Supporting-1 | 3,0 | 3 | |
| 17 | | | | |
| Spring Semester | | | | |
| CSC 2203 | Database Systems | 3,0 | 3 | CSC 2102 |
| CSCL 2203 | Lab: Database Systems | 0,1 | 1 | |
| 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 |
| CSC xxxx | University Elective-2 | 3,0 | 3 | |
| 16 | | | | |



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

BS (Computer Science) COURSE PLAN/ROADMAP

| Codes | Course Title | Cr.Hrs. | | Pre-Req. |
|-----------------|--|---------|---|----------|
| Third Year | | | | |
| Fall Semester | | | | |
| CSC 2205 | Operating Systems | 3, 0 | 3 | CSC 2102 |
| CSCL 2205 | Lab: Operating Systems | 0, 1 | 1 | |
| CSC 3109 | Software Engineering | 3, 0 | 3 | |
| CSC 3201 | Compiler Construction | 3, 0 | 3 | CSC 2204 |
| CSC xxxx | CS Supporting-2 | 3, 0 | 3 | |
| CSC xxxx | CS Supporting-3 | 3, 0 | 3 | |
| 16 | | | | |
| Spring Semester | | | | |
| CSC 1205 | Technical and Business Writing | 3, 0 | 3 | |
| CSC 3205 | Computer Networks and Data Communications | 3, 0 | 3 | |
| CSCL 3205 | Lab: Computer Networks and Data Communications | 0, 1 | 1 | |
| CSC 4101 | Artificial Intelligence | 3, 0 | 3 | CSC 1201 |
| CSCL 4101 | Lab: Artificial Intelligence | 0, 1 | 1 | |
| CSC 4xxx | CS Elective-1 | 3, 0 | 3 | |
| CSC 4xxx | CS Elective-2 | 3, 0 | 3 | |
| 17 | | | | |
| Fourth Year | | | | |
| Fall Semester | | | | |
| CSC 4105 | Final Year Project-I | 0, 3 | 3 | |
| CSC 4106 | Parallel and Distributed Computing | 3, 0 | 3 | CSC 2205 |
| CSC 4xxx | CS Elective-3 | 3, 0 | 3 | |
| CSC 4xxx | CS Elective-4 | 3, 0 | 3 | |
| CSC xxxx | University Elective-3 | 3, 0 | 3 | |
| 15 | | | | |
| Spring Semester | | | | |
| CSC 4201 | Information Security | 3, 0 | 3 | |
| CSC 4202 | Pakistan and Islamic Studies/Humanities | 4, 0 | 4 | |
| CSC 4205 | Final Year Project-II | 0, 3 | 3 | |
| CSC 4xxx | CS Elective-5 | 3, 0 | 3 | |
| CSC xxxx | University Elective-4 | 3, 0 | 3 | |
| 16 | | | | |
| Total | | | | 130 |

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



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

CS ELECTIVES

CSC 4514 SOA & Cloud Computing
 CSC 4703 Applied Data Mining
 CSC 4706 Digital Image Processing
 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 4802 Android Application Development
 CSC 4805 Data and Network Security
 CSC 4806 Digital Signal Processing
 CSC 4807 Embedded Programming
 CSC 4808 Ethical Hacking
 CSC 4809 iOS Development
 CSC 4814 Software Project Management
 CSC 4815 Software Engineering-II
 CSC 4817 Web Technologies-II
 CSC 4825 Computer Graphics
 CSC xxxx Introduction to Data Science

UNIVERSITY ELECTIVES

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

CSC 4501 Business and Technology Ethics
 CSC 4502 Design and Creativity
 CSC 4503 Introduction to Accounting
 CSC 4504 Organizational Behavior
 CSC 4505 Systems Administration
 CSC 4601 Foreign Languages
 CSC 4602 History of Scientific Ideas
 CSC 4603 Management Principles
 CSC 4604 Research Report
 CSC 4605 Sociology
 CSC xxxx Psychology

COMPUTER SCIENCE SUPPORTING COURSES

Coverage of relevant pre-requisite will be ensured while allowing any of the following courses from this category:

CSC xxxx Differential Equations
 CSC xxxx Multi-variate Calculus
 CSC xxxx Graph Theory
 CSC xxxx Theory of Programming Languages
 CSC xxxx Numerical Computing

DISTRIBUTION OF CREDIT HOURS.

| Course Group | | Cr. Hrs. | % |
|----------------------|--------------------|----------|------|
| Computing | Core Courses | 39 | 30% |
| | Supporting Areas | 12 | 9% |
| | General Education | 19 | 15% |
| Computer Science | Core Courses | 24 | 18% |
| | Electives | 15 | 12% |
| | Supporting Courses | 9 | 7% |
| University Electives | | 12 | 9% |
| Total | | 130 | 100% |

Internship

The internship is scheduled for summer 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.



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

BS Software Engineering

The current century is all about software as it has become part of almost every aspect of our daily lives. Software engineering is the application of proven scientific and engineering principles to the construction and management of software systems that not only meet their intended requirements and are cost-effective but also withstand lasting value.

Software engineering is a discipline within the ambit of Computer Science concerned with the processes, methodologies, tools and techniques of developing high quality software systems. The BS Software Engineering program aims to equip students with the pertinent skills that are widely applicable, highly in demand and amply rewarded. 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 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 management, requirements analysis, software architecture, software development and quality assurance. Throughout the degree program, students are exposed to the theory, techniques, tools and practicalities of software engineering.

The BS Software Engineering program is offered through a trained foreign qualified faculty. It consists of 41 courses with a total of 130 credits hours. The maximum duration to complete the degree is six years.

BS (Software Engineering) COURSE PLAN/ROADMAP

| Code | Course Title | Cr. Hrs. | | Pre-Req. |
|-----------------|---|----------|---|---------------------------------------|
| First Year | | | | |
| Fall Semester | | | | |
| SEC xxxx | Introduction to Info. & Comm. Technologies | 2, 0 | 2 | |
| SEC xxxx | Lab: Introduction to Info. & Comm. Technologies | 0, 1 | 1 | |
| SEC xxxx | Programming Fundamentals | 3, 0 | 3 | |
| SEC xxxx | Lab: Programming Fundamentals | 0, 1 | 1 | |
| SEC xxxx | English Composition & Comprehension | 3, 0 | 3 | |
| SEC xxxx | Calculus & Analytical Geometry | 3, 0 | 3 | |
| SEC xxxx | Islamiat and Pakistan Studies/Humanities | 3, 0 | 3 | |
| SEC xxxx | Applied Physics | 3, 0 | 3 | |
| | | 19 | | |
| Spring Semester | | | | |
| SEC xxxx | Object Oriented Programming | 3, 0 | 3 | Programming Fundamentals |
| SEC xxxx | Lab: Object Oriented Programming | 0, 1 | 1 | Programming Fundamentals |
| SEC xxxx | Communication & Presentation Skills | 3, 0 | 3 | English Composition and Comprehension |
| SEC xxxx | Discrete Structures | 3, 0 | 3 | |
| SEC xxxx | Software Engineering | 3, 0 | 3 | |
| SEC xxxx | Lab: Software Engineering | 0, 1 | 1 | |
| SEC xxxx | University Elective – I | 3, 0 | 3 | |
| | | 17 | | |

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

| Second Year | | | | |
|-----------------|--|------|---|-------------------------------------|
| Fall Semester | | | | |
| SEC xxxx | Data Structures & Algorithms | 3, 0 | 3 | Object Oriented Programming |
| SEC xxxx | Lab: Data Structures & Algorithms | 0, 1 | 1 | Object Oriented Programming |
| SEC xxxx | Software Requirement Engineering | 3, 0 | 3 | Software Engineering |
| SEC xxxx | Human Computer Interaction | 3, 0 | 3 | Software Engineering |
| SEC xxxx | Linear Algebra | 3, 0 | 3 | |
| SEC xxxx | University Elective-II | 3, 0 | 3 | |
| | | 16 | | |
| Spring Semester | | | | |
| SEC xxxx | Operating Systems | 3, 0 | 3 | Data Structures & Algorithms |
| SEC xxxx | Lab: Operating Systems | 0, 1 | 1 | Data Structures & Algorithms |
| SEC xxxx | Database Systems | 3, 0 | 3 | Data Structures & Algorithms |
| SEC xxxx | Lab: Database Systems | 0, 1 | 1 | Data Structures & Algorithms |
| SEC xxxx | Software Design & Architecture | 2, 0 | 2 | Software Requirement Engineering |
| SEC xxxx | Lab: Software Design & Architecture | 0, 1 | 1 | Software Requirement Engineering |
| SEC xxxx | Probability and Statistics | 3, 0 | 3 | |
| SEC xxxx | University Elective – III | 3, 0 | 3 | |
| | | 17 | | |
| Third Year | | | | |
| Fall Semester | | | | |
| SEC xxxx | Software Construction and Development | 2, 0 | 2 | Software Design and Architecture |
| SEC xxxx | Lab: Software Construction and Development | 0, 1 | 1 | Software Design and Architecture |
| SEC xxxx | Computer Networks | 3, 0 | 3 | |
| SEC xxxx | Lab: Computer Networks | 0, 1 | 1 | |
| SEC xxxx | Technical and Business Writing | 3, 0 | 3 | Communication & Presentation Skills |
| SEC xxxx | SE Supporting –I | 3, 0 | 3 | |
| SEC xxxx | SE Supporting –II | 3, 0 | 3 | |
| | | 16 | | |
| Spring Semester | | | | |
| SEC xxxx | Software Quality Engineering | 3, 0 | 3 | Software Engineering |
| SEC xxxx | Information Security | 3, 0 | 3 | |
| SEC xxxx | Professional Practice | 3, 0 | 3 | |
| SEC xxxx | Web Engineering | 3, 0 | 3 | |
| SEC xxxx | SE Elective – I | 3, 0 | 3 | |
| SEC xxxx | SE Supporting – III | 3, 0 | 3 | |
| | | 18 | | |
| Fourth Year | | | | |
| Fall Semester | | | | |
| SEC xxxx | Software Project Management | 3, 0 | 3 | Software Engineering |
| SEC xxxx | Software Re-Engineering | 3, 0 | 3 | Software Construction & Development |
| SEC xxxx | SE Elective –II | 3, 0 | 3 | |
| SEC xxxx | SE Elective – III | 3, 0 | 3 | |
| SEC xxxx | Final Year Project – I | 0, 3 | 3 | |
| | | 15 | | |



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

| Spring Semester | | | | |
|-----------------|--------------------------|------|---|--|
| SEC xxxx | SE Elective – IV | 3, 0 | 3 | |
| SEC xxxx | SE Elective – V | 3, 0 | 3 | |
| SEC xxxx | Final Year Project – II | 0, 3 | 3 | |
| SEC xxxx | University Elective – IV | 3, 0 | 3 | |
| | | 12 | | |

SE Electives

SEC-4xxx Agent Based Software Engineering
 SEC-4xxx Big Data Analytics
 SEC-4xxx Cloud Computing
 SEC-4xxx Computer Graphics
 SEC-4xxx Data Encryption and Security
 SEC-4xxx E-Commerce
 SEC-4xxx Game Application Development
 SEC-4xxx Global Software Development
 SEC-4xxx Information Systems Audit
 SEC-4xxx Management Information Systems
 SEC-4xxx Mobile Application Development
 SEC-4xxx Multimedia Communication
 SEC-4xxx Natural Language Processing
 SEC-4xxx Real Time Systems
 SEC-4xxx Semantic Web
 SEC-4xxx Software Engineering Economics
 SEC-4xxx Software Metrics
 SEC-4xxx Systems Programming
 SEC-4xxx Topics in Software Engineering
 SEC-4xxx Visual Programming

SE Supporting courses

SEC-xxxx Business Process Engineering
 SEC-xxxx Formal Methods in SE
 SEC-xxxx Operations Research
 SEC-xxxx Simulation and Modeling
 SEC-xxxx Stochastic Processes
 SEC-xxxx Digital Logic Design

University Elective Courses

SEC-xxxx Economy Related
 SEC-xxxx Foreign Language
 SEC-xxxx Management Related
 SEC-xxxx Social Science Related

DISTRIBUTION OF CREDIT HOURS

| Course Group | | Cr. Hrs. | % |
|----------------------------------|--------------|----------|------|
| Computing | Core Courses | 40 | 31% |
| Software Engineering | Core Courses | 24 | 18% |
| | Electives | 15 | 12% |
| | Supporting | 9 | 7% |
| General Education | | 18 | 14% |
| University Electives | | 12 | 9% |
| Mathematics % Science Foundation | | 12 | 9% |
| Total | | 130 | 100% |

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.



FACULTY OF COMPUTING AND ENGINEERING SCIENCES

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 the market needs. Students have to complete 4 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 Study (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 5101 Advanced Algorithms Analysis | |
| CSC 5102 Theory of Computation | |
| CSC 5105 Research Methodology | |

Second Semester

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

Second Year

Third Semester

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

Fourth Semester

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

Master of Science in Computer Science (with Specialization in Software Engineering)

First Year

First Semester

| | |
|---------------------------------------|--|
| CSC 5101 Advanced Algorithms Analysis | |
| CSC 5102 Theory of Computation | |
| CSC 5105 Research Methodology | |

Second Semester

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

Second Year

Third Semester

| | |
|--|--|
| CSC/SEC 5xxx Thesis/Independent Research Study-I OR Course Work (from CS-Stream-II or from SE-Stream-II) | |
| CSC 5xxx Elective-II (from SE Stream-I) | |
| CSC 5xxx Elective-III (from SE Stream-I) | |

Fourth Semester

| | |
|---|--|
| CSC/SEC 5xxx Thesis/Independent Research Study-II OR Course Work (from CS-Stream-II or from SE-Stream-II) | |
| CSC 5xxx Elective-IV (from SE Stream-I) | |

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.

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

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

First Year

First Semester

| | |
|---------------------------------------|--|
| CSC 5101 Advanced Algorithms Analysis | |
| CSC 5102 Theory of Computation | |
| CSC 5105 Research Methodology | |

Second Semester

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

Second Year

Third Semester

| | |
|--|--|
| CSC/NSC 5xxx Thesis/Independent Research Study-IOR Course Work (from CS-Stream-II or from N&S-Stream-II) | |
| NSC 5xxx Elective-IV (from N&S-Stream-I) | |

Fourth Semester

| | |
|--|--|
| CSC/NSC 5xxx Thesis/Independent Research Study-II OR Course Work (from CS-Stream-II or from N&S-Stream-II) | |
| NSC 5xxx Elective-IV (from N&S-Stream-I) | |

CS-Stream-I

CSC 5161 Machine Learning
CSC 5162 Digital Image Processing
CSC 5163 Data Mining
CSC 5164 Real-Time Systems
CSC 5166 Operation Research
CSC 5264 Expert Systems
CSC xxxx Evolutionary Computing

CS-Stream-II

CSC 5261 Advanced Database Design
CSC 5262 Computer Vision
CSC 5263 Advanced Resource Sharing Architecture
CSC 5265 Distributed Computing
CSC 5266 Digital Forensics and Malware Analysis
CSC 5267 Reverse Engineering
CSC 5268 Robotics

CSC 5269 Systems and Network Programming SE-Stream-I

SEC 5161 Software System Architecture
SEC 5162 Advanced Software Engineering
SEC 5163 Software Requirement Engineering
SEC 5164 Software System Quality

SE-Stream-II

SEC 5261 Software Analysis and Testing
SEC 5262 Software Project Management
SEC 5263 Web Engineering

N&S-Stream-I

NSC 5161 Advanced Computer Networks
NSC 5162 Information Security
NSC 5163 Network Security
NSC 5164 Applied Cryptography
NSC 5261 Wireless Sensor Networks

N&S-Stream-II

NSC 5262 Advanced Data Communications
NSC 5263 Mobile Ad-hoc Networks
NSC 5264 Telecom Policies and Regulations

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)

Artificial Intelligence
Finite Automata Theory
Digital Logic Design

MS (CS) with SE-Specialization

Artificial Intelligence
Finite Automata Theory
Digital Logic Design
Software Engineering-I

MS (CS) with N&S-Specialization

Data Communication and Computer Networks
Finite Automata Theory
Digital Logic Design

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

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

MS Data Science

The MS (Data Science) program is of 2-years duration offered in the evening. It requires 30 credit hours including 3 core courses (3x3=9) and 2 specialized data science courses (2x3=6). Thesis of 6 credit hours is mandatory.

The maximum time limit to complete the MS (Data Science) degree is 4 years.

Why Study Data Science?

The amount of data is growing so rapidly as well as its significance in the emerging societal setups such as the pervasive Internet of Things. The way one imagines data is going to change in the coming years. Both Big Data Analytics and pervasive computing hinge on the principle axis of data analytics. MS (Data Science) program is going to be relevant in terms of job creation and artisanal smart business generation. Graduates from this program would definitely avail the early-bird advantage.

Program Objectives

The MS (Data Science) program has been designed to give students the option to be part of a data science endeavor that begins with the identification of business processes, determination of data provenance and ownership, understanding the ecosystem of the business decisions, skill sets and tools that shape the data, making data amenable to analytics, identifying sub-problems, recognizing the technology matrix required for problem resolution, creating incrementally-complex data-driven models and then maintaining them to ultimately leverage them for business growth.

Individual objectives include:

- To equip students to transform data into actionable insights to make complex decisions.
- To enable students to understand and analyze problems and arrive at computable solutions.
- To expose students to the set of technologies that match those solutions.
- To gain hands-on experience on data-centric tools for statistical analysis, visualization and big data applications at the same rigorous scale as in a practical data science project.
- To understand the implications of handling data in terms of data security and business ethics.

Master of Science in Data Science

First Year

First Semester

| | |
|---|--|
| DSC 5101 Statistical and Mathematical Methods for Data Science | |
| DSC 5102 Tools and Techniques in Data Science | |
| DSC 6xxx Elective-I | |

Second Semester

| | |
|-------------------------------------|--|
| DSC 5201 Machine Learning | |
| DSC xxxx Specialization-Elective-I | |
| DSC xxxx Specialization-Elective-II | |

Second Year

Third Semester

| | |
|--------------------------|--|
| DSC xxxx Elective II | |
| DSC xxxx Thesis (Part-I) | |

Fourth Semester

| | |
|---------------------------|--|
| DSC xxxx Elective III | |
| DSC xxxx Thesis (Part-II) | |

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

| Course type | No. of courses x Credits | Cumulative credits |
|---------------------------|--------------------------|--------------------|
| Core Courses | 3 x 3 | 09 |
| Specialization Courses | 2 x 3 | 06 |
| Electives | 3 x 3 | 09 |
| Thesis (Part-I & Part-II) | 2 x 3 | 06 |
| Total | | 30 |

| Three Core Courses | Cr.Hrs |
|---|--------|
| Tools and Techniques in Data Science | 2 + 1* |
| Statistical and Mathematical Methods for Data Science | 3 |
| Machine Learning | 3 |

* 2+1 means 2 hours of lecture + 3 hours of lab work

| Specialization Courses | Cr.Hrs |
|-----------------------------|--------|
| Big Data Analytics | 3 |
| Deep Learning | 3 |
| Natural Language Processing | 3 |
| Distributed Data Processing | 3 |

Electives Courses

DSC 5121 Cloud Computing
 DSC 5221 Advanced Computer Vision
 DSC 5222 Research Methodology
 DSC 5241 Natural Language Processing
 DSC xxxx Algorithmic Trading
 DSC xxxx Bayesian Data Analysis
 DSC xxxx Big Data Analytics
 DSC xxxx Bioinformatics
 DSC xxxx Computational Genomics
 DSC xxxx Data Visualization
 DSC xxxx Deep Learning
 DSC xxxx Deep Reinforcement Learning
 DSC xxxx Distributed Data Processing and Machine Learning
 DSC xxxx High Performance Computing
 DSC xxxx Inference & Representation
 DSC xxxx Probabilistic Graphical Models
 DSC xxxx Scientific Computing in Finance
 DSC xxxx Social Network Analysis
 DSC xxxx Time series Analysis and Prediction
 DSC xxxx Graph Analytics for Big Data
 DSC xxxx Mining Massive Datasets
 DSC xxxx IoT for Smart Cities and Smart Homes
 DSC xxxx Data Science with R
 DSC xxxx Python Programming for Data Science
 DSC xxxx Implementing Predictive Analysis
 DSC xxxx Text Mining

DSC xxxx Data Science in Cyber Security
 DSC xxxx Business Context Modelling
 DSC xxxx Advanced Topics in Decision Support Systems
 DSC xxxx Pattern Recognition

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.

Deficiency Courses

1. Programming Fundamentals
 2. Database Systems
 3. Data Structures & Algorithms
- OR
- Design & Analysis of Algorithms

FACULTY OF COMPUTING AND ENGINEERING SCIENCES

PhD (Computing)

The PhD program requires students to complete 48 credit hours. Course work of 18 credits (6 courses) is needed which includes core courses, electives and Independent Research Study. Dissertation of 30 credits is also required to complete. The maximum time limit to complete the PhD degree is 8 years.

First Year

Fall Semester

| | |
|-------------------------------|--|
| CSC 6xxx Research Methodology | |
| CSC 6xxx Elective-I | |
| CSC 6xxx Elective-II | |

Spring Semester

| | |
|-------------------------------------|--|
| CSC 6xxx Independent Research Study | |
| CSC 6xxx Elective-III | |
| CSC 6xxx Elective-IV | |

Second Year

Fall Semester

| | |
|-----------------------|--|
| CSC 6xxx Dissertation | |
|-----------------------|--|

Spring Semester

| | |
|-----------------------|--|
| CSC 6xxx Dissertation | |
|-----------------------|--|

Third Year

Fall Semester

| | |
|-----------------------|--|
| CSC 6xxx Dissertation | |
|-----------------------|--|

Spring Semester

| | |
|-----------------------|--|
| CSC 6xxx Dissertation | |
|-----------------------|--|

Elective courses are listed under different streams in MS Computer Science program.

Followed by successful completion of the course work, Comprehensive Examination is required to pass in order to acquire PhD Candidacy after which research period starts. The entire research work is carried out under the supervision of the PhD supervisor which is assigned and approved as per the university procedure. The complete research work is required to be submitted in the form of a "Dissertation" after a minimum period of two years.

PhD course work credits may be implemented via selection of a particular mode of course execution (as recommended by the BASR).

*The course of Research Methodology is compulsory if not done in Masters.



FACULTY OF EDUCATION & SOCIAL SCIENCES



FACULTY OF EDUCATION & SOCIAL SCIENCES

SZABIST prepares students for managerial careers in Social Science. SZABIST offers course work in many disciplines to provide potential managers with an understanding of the complexities of the professional world in which they will operate and of the organizations of which they will become a part.

The course work at SZABIST is an intensive study of a host of disciplines, and offers majors in Psychology, Sociology, Political Science & Economics.

FACULTY OF EDUCATION & SOCIAL SCIENCES

Department of Social Sciences

BS Social Sciences

To obtain a BS degree in Social Sciences, students are required to complete a total of 144 credit hours within 6 years. The degree consists of a total of 46 courses and a Research Project. The maximum time limit to complete the degree is six years.

First Year

| Fall Semester | Pre-Req. |
|--|----------|
| SS 1105 Microeconomics | |
| SS 1109 Islamiat/Ethics and Pakistan Studies | |
| SS 1115 Community Services | |
| SS 1116 English for General Purposes | |
| SS 1117 Computer and Web Skills | |
| SS 1201 Introduction to Social Sciences | |

Spring Semester

| | |
|---|---------|
| SS 1155 Introduction to Political Science | |
| SS 1205 Macroeconomics | SS 1105 |
| SS 2306 Psychology | |
| SS 2307 Sociology | |
| SS 2412 International Relations | |
| SS 4705 Sindh Studies | |

Second Year

Fall Semester

| | |
|---|---------|
| SS 2313 Introduction to Social Psychology | SS 2306 |
| SS 2314 Study of Anthropology | |
| SS 2316 English for Academic Purposes | SS 1116 |
| SS 2318 Mathematics and Statistics | |
| SS 2413 Philosophy | |
| SS 1xxx Elective-I | |

Spring Semester

| | |
|---|---------|
| SS 1209 Social Policy | SS 2307 |
| SS 2406 Gender Studies | |
| SS 2414 Introduction to Organizational Psychology | SS 2306 |
| SS 2418 Statistical Inferences | SS 2318 |
| SS 3503 Development Studies | |
| SS 1xxx Elective-II | |

Third Year

| Fall Semester | Pre-Req. |
|----------------------------------|----------|
| SS 2312 Culture, Art and Society | |
| SS 3509 Language-I | |
| SS 3606 Political Economy | |
| SS 4xxx Major-I | |
| SS 4xxx Major-II | |
| SS 4xxx Major-III | |

Spring Semester

| | |
|--|---------|
| SS 3504 Research Methods | |
| SS 3605 International Law and Human rights | |
| SS 3609 Language-II | SS 3509 |
| SS 4xxx Major-IV | |
| SS 4xxx Major-V | |
| SS 4xxx Major-VI | |

Fourth Year

Fall Semester

| | |
|---|---------------------------|
| SS 2411 Environmental Studies | |
| SS 4707 Introduction to Health Psychology | SS 2306 |
| SS 4709 Research Project-I | SS 3304, SS 2318, SS 2418 |
| SS 4xxx Major-VII | |
| SS 4xxx Major-VIII | |
| SS 4xxx Major-IX | |

Spring Semester

| | |
|-----------------------------|---------|
| SS 2405 Enlightenment | SS 2413 |
| SS 4804 Public Policy | SS 1209 |
| SS 4809 Research Project-II | SS 4709 |
| SS 4xxx Major-X | |
| SS 4xxx Major-XI | |
| SS 4xxx Major-XII | |

ELECTIVES

| | |
|---------|----------------------------|
| SS 1154 | Literature |
| SS 1157 | Comparative Religion |
| SS 1163 | Development and Politics |
| SS 1254 | World History |
| SS 1262 | Mass Media |
| SS 1263 | Culture and Media in Sindh |
| SS 2305 | Human Geography |
| SS xxxx | History of Ideas |

FACULTY OF EDUCATION & SOCIAL SCIENCES

MAJORS

Psychology

| | |
|---------|------------------------------|
| SS 4111 | Abnormal Psychology |
| SS 4112 | Developmental Psychology |
| SS 4114 | Personality Theories |
| SS 4134 | Cognitive Psychology |
| SS 4135 | Educational Psychology |
| SS 4156 | Clinical Psychology |
| SS 4167 | Child Psychology |
| SS 4168 | Experimental Psychology |
| SS 4211 | Psychological Testing |
| SS 4234 | Psychodynamics |
| SS 4236 | Positive Psychology |
| SS 4255 | Counseling and Psychotherapy |
| SS 4262 | Physiological Psychology |
| SS 4267 | Forensic Psychology |
| SS 4268 | History of Psychology |

Sociology

| | |
|---------|--|
| SS 4138 | Corporate Social Responsibility |
| SS 4141 | Mass, Media and Society |
| SS 4169 | Citizenship |
| SS 4171 | Class, Caste, and Ethnicity in South Asia |
| SS 4172 | Political Sociology |
| SS 4196 | Social Theories-I |
| SS 4197 | The Sociology of Religion |
| SS 4237 | Post-Colonial State and Social Development |
| SS 4238 | Social Entrepreneurship |
| SS 4239 | Social Justice |
| SS 4241 | Sociology of Education |
| SS 4242 | The Sociology of Poverty |
| SS 4269 | Civil Society |
| SS 4271 | Peace Movements |
| SS 4272 | Social Change in Pakistan |
| SS 4273 | Urbanization |
| SS 4295 | Criminology |
| SS 4296 | Social Theories-II |

Political Science

| | |
|---------|---|
| SS 4119 | Arms Control and Disarmament |
| SS 4174 | Central and West Asian Studies |
| SS 4175 | European Studies |
| SS 4176 | Globalization and Global Governance |
| SS 4177 | Middle Eastern Studies |
| SS 4178 | Muslim World |
| SS 4179 | Politics of Terrorism |
| SS 4219 | Peace Research |
| SS 4222 | Strategic Studies |
| SS 4274 | Diplomacy, Conflict Resolution and Confidence Building Measures |
| SS 4275 | Foreign Policy and International Politics |

| | |
|---------|-------------------------------|
| SS 4276 | International Institutions |
| SS 4277 | Modern Ideologies |
| SS 4278 | Political Geography |
| SS 4279 | US and International Politics |

Development Studies

| | |
|---------|------------------------------------|
| SS 1163 | Development and Politics |
| SS 4128 | Agriculture Economics |
| SS 4138 | Corporate Social Responsibility |
| SS 4139 | Development and Planning |
| SS 4139 | Gender and Development |
| SS 4181 | Capabilities and Human Development |
| SS 4184 | Poverty and Inequality |
| SS 4238 | Social Entrepreneurship |
| SS 4251 | Sustainable Development |
| SS 4269 | Civil Society |
| SS 4276 | International Institutions |
| SS 4706 | Development Economics |
| SS 4756 | Econometrics |
| SS 5104 | Theories of Development |

Economics

| | |
|---------|------------------------------------|
| SS 4128 | Agriculture Economics |
| SS 4139 | Gender and Development |
| SS 4147 | Development and Planning |
| SS 4155 | Basic Econometrics |
| SS 4181 | Capabilities and Human Development |
| SS 4182 | Game Theory |
| SS 4183 | Industrial Economics |
| SS 4184 | Poverty and Inequality |
| SS 4228 | History of Economic Thoughts |
| SS 4249 | Pakistan Economy |
| SS 4251 | Sustainable Development |
| SS 4261 | Mathematical Economics |
| SS 4281 | Fiscal and Monetary Economics |
| SS 4282 | Growth |
| SS 4283 | Labour Economics |
| SS 4284 | Trade Economics |

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.

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-week internship, all students are required to submit a comprehensive report giving details of their experience and learning.

FACULTY OF EDUCATION & SOCIAL SCIENCES

MS SS (Political Science , Economics , Psychology and Sociology)

There are two streams available for MS SS (Political Science, Economics, Psychology and Sociology) . One Stream is Course Work Based Stream and other one is Research based Stream. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In the Research Based Stream, the student is required to complete 8 Courses (24 Credit Hours) and Two IRS (6 Credit Hours) OR One Thesis (6 Credit Hours). In both the streams, 30 Credit hours are to be completed. The time limit to earn a MS degree is from 1.5 to 4 years. The detail of two streams is as follows:

1- MS (Course Based Stream)

The scheme of study is as follows:

- 02 core courses (6 Credit Hours)
- 08 Electives (24 Credit Hours)
- No IRS or Thesis

First Year

Fall Semester

| | | |
|---------|--|--|
| SS 5121 | Advanced Research Methods and Techniques-I (Qualitative) | |
| SS 5122 | Advanced Research Methods and Techniques-II (Quantitative) | |
| SS 5xxx | Elective-I | |
| SS 5xxx | Elective-II | |

Spring Semester

| | | |
|---------|--------------|--|
| SS 5xxx | Elective-III | |
| SS 5xxx | Elective-IV | |
| SS 5xxx | Elective-V | |
| SS 5xxx | Elective-VI | |

Second Year

Fall Semester

| | | |
|---------|---------------|--|
| SS 5xxx | Elective-VII | |
| SS 5xxx | Elective-VIII | |

Electives (Electives in any of the following specializations)

- Political Science
- Economics
- Psychology
- Sociology

2- MS (Research Based Stream)

The scheme of study is as follows:

- 02 core courses (6 Credit Hours)
- 06 Electives (18 Credit Hours)
- 02 IRSs or Thesis (6 Credit Hours)

First Year

Fall Semester

| | | |
|---------|--|--|
| SS 5121 | Advanced Research Methods and Techniques-I (Qualitative) | |
| SS 5122 | Advanced Research Methods and Techniques-II (Quantitative) | |
| SS 5xxx | Elective-I | |
| SS 5xxx | Elective-II | |

Spring Semester

| | | |
|---------|--------------|--|
| SS 5xxx | Elective-III | |
| SS 5xxx | Elective-IV | |
| SS 5xxx | Elective-V | |
| SS 5xxx | Elective-VI | |

Second Year

Fall Semester

| | | |
|---------|-------------------------------|------------------|
| SS 5xxx | Independent Research Study I | SS 5121, SS 5122 |
| SS 5xxx | Independent Research Study II | SS 5121, SS 5122 |

OR

Fall Semester (For thesis students only)

| | | |
|---------|-----------------|------------------|
| SS 5xxx | Thesis (Part I) | SS 5121, SS 5122 |
|---------|-----------------|------------------|

Spring Semester (For thesis students only)

| | | |
|---------|------------------|----------|
| SS 5xxx | Thesis (Part II) | Thesis I |
|---------|------------------|----------|

FACULTY OF EDUCATION & SOCIAL SCIENCES

ELECTIVES

MS (Political Science)

- SS 5104 Politics of Geo-Economics
- SS 5111 Democratization as a Global Process
- SS 5206 Political Economy in the Global Perspective
- SS 5212 NGO Management
- SS 5226 Issues in Pakistan's Political and Constitutional History
- SS 5306 Sacred and Secular
- SS 5311 Environmental Studies
- SS 5312 Globalization and Developing Countries
- SS 5313 Intellectual Property Rights and Laws
- SS 5321 History of Ideas
- SS 5431 Dynamics of Security
- SS 5434 Political Theory
- SS 5436 Role of Great Powers and International Relations
- SS 5437 Critical Geo-Politics
- SS 5438 Foreign Policy of Pakistan
- SS 5439 Globalization in the 21st Century: Challenges and Opportunities
- SS 5441 Globalization: Issues and Debates
- SS 5442 History of Economic Thought in Contemporary Perspective
- SS 5xxx Human Rights in International Perspective

MS (Economics)

- SS 5104 Politics of Geo-Economics
- SS 5202 Monetary Economics
- SS 5203 Public Finance
- SS 5206 Political Economy in the Global Perspective
- SS 5214 Public Policy Management
- SS 5223 Financial Time Series
- SS 5228 Corporate Governance
- SS 5231 Advanced Microeconomics
- SS 5232 Advanced Macroeconomics
- SS 5233 Advanced Econometrics
- SS 5234 International Trade
- SS 5235 Gender Work and Economy
- SS 5236 Economic Growth and Development
- SS 5305 Political Economy of Pakistan
- SS 5312 Globalization and Developing Countries
- SS 5321 History of Ideas
- SS 5322 Topics in Political Economy
- SS 5327 Development Economics and Sustainability
- SS 5432 Gender Issues in Rural Development
- SS 5439 Globalization in the 21st Century: Challenges and Opportunities
- SS 5442 History of Economic Thought in Contemporary Perspective

MS (Sociology)

- SS 5212 NGO Management
- SS 5217 Cultural Anthropology

- SS 5302 Sustainable Development
- SS 5306 Sacred and Secular
- SS 5331 Gender and Human Rights
- SS 5332 Sociology of Development
- SS 5333 Sociology of Gender Issues
- SS 5334 Social Change and Development
- SS 5335 Sociology of Migration and Urbanization
- SS 5336 Community Development and Social Mobilization
- SS 5337 Community Organizing and Development
- SS 5338 Contemporary Sociological Thoughts
- SS 5339 Gender Issues in Global Scenario
- SS 5341 Immigration in Contemporary Perspectives
- SS 5342 Industrial Sociology
- SS 5343 Leadership in Sociology: Theory and Practice
- SS 5344 Population and Development: Current Issues and Future Implications
- SS 5345 Population Dynamics
- SS 5346 Religion and Development
- SS 5347 Rethinking Global Development: New Frameworks for Understanding Poverty, Inequality and Growth in 21 Century
- SS 5348 Social Statistics
- SS 5349 Sociology of Science, Knowledge and Technology
- SS 5351 Sociology of Sexuality
- SS 5352 Women Studies
- SS 5402 Law and Human Rights
- SS 5441 Globalization: Issues and Debates
- SS 5515 Global Governance
- SS 5xxx Foundational Sociological Perspectives

MS (Psychology)

- SS 5319 Psychotherapy and Counseling-I
- SS 5328 Assessment and Diagnosis-I
- SS 5329 Psychophysiology and Psychopharmacology
- SS 5411 Assessment and Diagnosis-II
- SS 5419 Psychotherapy and Counseling-II
- SS 5421 Perspective in Organizational Psychology
- SS 5422 Cross-Cultural Psychology
- SS 5423 School Psychology
- SS 5433 Gender Psychology
- SS 5435 Use, Construction and Interpretation of Tests
- SS 5461 Applications of Contemporary Data Analysis Tools
- SS 5462 Clinical Internship
- SS 5463 Community Psychology
- SS 5464 Consumer Behavior
- SS 5465 Environmental Psychology
- SS 5466 Marketing and Consumer Psychology
- SS 5467 Organizational Conflict and Management

FACULTY OF EDUCATION & SOCIAL SCIENCES

SS 5468 Organizational Culture and Development
SS 5469 Psychological Assessment in
Organizational Psychology
SS 5471 Psychology of Leadership
SS 5xxx Environmental Psychology
SS 5xxx Community Psychology

Two interdisciplinary courses can be allowed with approval of the both Program Managers subject to the relevance of courses.

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.



FACULTY OF EDUCATION & SOCIAL SCIENCES

MS Development Studies

There are two streams available for MS (Development Studies). One Stream is Course Work Based Stream and other one is Research based Stream. In Course Work Stream, the student is required to complete 10 courses of 3 credit hours each. In the Research Based Stream, the student is required to complete 8 Courses (24 Credit Hours) and Two IRS (6 Credit Hours) OR One Thesis (6 Credit Hours). In both the streams, 30 Credit hours to be completed. The time limit to earn a MS degree is from 1.5 to 4 years. The detail of two streams is as follows:

1- MS (Course Based Stream)

The scheme of study is as follows:

- 02 Core Courses (6 Credit Hours)
- 02 University Electives (6 Credit Hours)
- 06 Electives (18 Credit Hours)
- No IRS or Thesis

First Year

Fall Semester

| | |
|--------------------------------|--|
| DS 5101 Research Methodologies | |
| DS 5102 Statistical Methods | |
| DS 5xxx University Elective I | |
| DS 5xxx Elective I | |

Spring Semester

| | |
|--------------------------------|--|
| DS 5xxx University Elective II | |
| DS 5xxx Elective II | |
| DS 5xxx Elective III | |
| DS 5xxx Elective IV | |

Second Year

Fall Semester

| | |
|---------------------|--|
| DS 5xxx Elective-V | |
| DS 5xxx Elective-VI | |

Electives

DS 5103 The Economics of Developing Countries
 DS 5211 Public Policy Management
 DS 5312 Globalization & Developing Countries
 DS 5313 The Political Economy of Pakistan
 DS 5315 Gender and Development
 DS xxxx Sustainable Mountain Development
 DS xxxx Migration & Development
 DS xxxx Conflict Management & Negotiation Skills
 DS xxxx Right Based Approaches to Development

Thesis Option

Students may opt for thesis in lieu of two IRS. Thesis can be taken once all core courses & three elective courses, are completed. Registration in thesis is allowed in two semesters with 3 credit hours per semester.

Maximum two interdisciplinary courses can be allowed with the approval of the concerned program managers. 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.

2- MS (Research Based Stream)

The scheme of study is as follows:

- 02 Core Courses (6 Credit Hours)
- 02 University Electives (6 Credit Hours)
- 04 Electives (18 Credit Hours)
- 02 IRSs or Thesis (6 Credit Hours)

First Year

Fall Semester

| | |
|--------------------------------|--|
| DS 5101 Research Methodologies | |
| DS 5102 Statistical Methods | |
| DS 5xxx University Elective I | |
| DS 5xxx Elective I | |

Spring Semester

| | |
|--------------------------------|--|
| DS 5xxx University Elective II | |
| DS 5xxx Elective II | |
| DS 5xxx Elective III | |
| DS 5xxx Elective IV | |

Second Year

Fall Semester

| | |
|---------------------------------------|------------------|
| DS 5108 Independent Research Study I | DS 5101, DS 5102 |
| DS 5208 Independent Research Study II | DS 5101, DS 5102 |

Pre-Req.

OR

Fall Semester (For thesis students only)

| | |
|-------------------------|------------------|
| SS 5xxx Thesis (Part I) | DS 5101, DS 5102 |
|-------------------------|------------------|

Spring Semester (For thesis students only)

| | |
|--------------------------|----------|
| SS 5xxx Thesis (Part II) | Thesis I |
|--------------------------|----------|

University Electives

DS 5104 Theories of Development
 DS 5105 Disasters and Development
 DS 5204 Sustainable Development
 DS 5314 Development Management

FACULTY OF MEDIA SCIENCES



FACULTY OF MEDIA SCIENCES

In the 21st century, Media in all its forms, print, TV, radio, film, video, digital, virtual, and mobile has increasingly saturated all aspects of contemporary life. This proliferation of media presents vast opportunities and poses immense challenges. Our degree programs in Media Sciences are designed to help undergraduate and graduate students participate productively both as practitioners and scholars in this exciting and challenging environment.

Broadly defined, the Media Sciences constitute a field of study that encompasses the history, theory, production, content, and public effects of a variety of media including but not limited to journalism, advertising, photography, radio, film, video, television, design, the internet, digital technologies, and the performing arts. We recognize that studying media requires interdisciplinary thinking. Therefore, by bridging theory and practice and using an interdisciplinary approach, we give our students the skills, knowledge, and flexibility that the increasingly competitive international and national market demands.

The Faculty of Media Sciences at SZABIST offers the following undergraduate degree program:

Bachelor of Sciences in Media Sciences

(Film & Television Production, Advertising Strategy & Design and Journalism)

FACULTY OF MEDIA SCIENCES

Bachelor of Science in Media Sciences

The Faculty of Media Sciences at SZABIST offers a comprehensive 4-year Bachelor of Sciences in Media Sciences degree with majors in Film and Television production, Advertising Strategy & Design, and Journalism.

To earn an undergraduate degree, students must enroll in and successfully complete a total of 135 credit hours which include 43 courses, a 6-credit thesis, and an internship (Forty-three courses include: 33 core courses, 7 major requirements in Film and Television production, or Advertising Strategy & Design, or Journalism and 3 open electives). The maximum time limit to complete the degree is six years.

First Year

| Fall Semester | Pre-Req. |
|---|----------|
| MD1106 Photography | MD 1107 |
| MD 1107 Drawing and Perspective | |
| MD 1115 Introduction to Media Industries | |
| MD 1116 Civilization Studies-I | |
| MD 1122 English for General Purpose (EGP) | |
| MD 2402 Islamiyat and Pakistan Studies/Humanities | |

Spring Semester

| | |
|--|------------------|
| MD 1104 Culture, Media and Society | MD 1115, MD 1122 |
| MD 1211 Basic Design | MD 1107 |
| MD 1217 Introduction to Sound | MD 3601 |
| MD 1222 English for Academic Purposes | MD 1122 |
| MD 2321 History and Aesthetics of Film | MD 2323 |
| MD 3601 Art of Music | |

Third Year

Fall Semester

| | |
|---------------------------------|---------------------------|
| MD 1213 Creative Writing | MD 1122, MD 1118 |
| MD 2405 Media Laws and Ethics | MD 1115, MD 1222 |
| MD 2423 Theatre Project | MD 1119 |
| MD 2424 Media Psychology | MD 1104, MD 1222 |
| MD 3523 Production Practices-II | MD 1217, MD 2313, MD 2323 |
| MD 4xxx Major-I | MD 3523 |

Spring Semester

| | |
|---|------------------|
| MD 3506 Theories of Visual Culture | MD 1104, MD 1222 |
| MD 3518 Animation and Motion Graphics | MD 2425, MD 2427 |
| MD 4701 State and Nation Building in Pakistan | MD 1216, MD 1222 |
| MD 4xxx Major-II | |
| MD 4xxx Major-III | |
| MD 4xxx Major-IV | |

Second Year

| Fall Semester | Pre-Req. |
|------------------------------------|----------|
| MD 1118 Topics in Asian Literature | MD 1222 |
| MD 1216 Civilization Studies-II | MD 1116 |
| MD 2313 Idea Development | MD 1107 |
| MD 2323 Production Practices-I | MD 1107 |
| MD 2427 Design Practices-I | MD 1211 |
| MD 3505 Principles of Journalism | MD 1122 |

Spring Semester

| | |
|--|------------------|
| MD 1119 Play Analysis | MD 1122 |
| MD 2318 History of Commercial Arts | MD 1107, MD 1211 |
| MD 2325 Media Research | MD 1104, MD 1222 |
| MD 2425 Audiovisual Editing | MD 2323, MD 1217 |
| MD 3525 Radio Programming and Production | MD 1217, MD 3601 |
| MD 3527 Design Practices-II | MD 2427 |

Fourth Year

Fall Semester

| | |
|------------------------------------|---------|
| MD 4714 Producing Short Narratives | MD 3523 |
| MD 4807 Thesis I | |
| MD 4xxx Major-V | |
| MD 4xxx Major-VI | |
| MD 4xxx Major-VII | |
| MD 4xxx Elective-I | |

Spring Semester

| | |
|----------------------|---------|
| MD 4808 Thesis-II | MD 4807 |
| MD 4xxx Elective-II | |
| MD 4xxx Elective-III | |

FACULTY OF MEDIA SCIENCES

MAJORS

Film & Television Production

- MD 4724 Documentary Vision
- MD 4726 Directing I
- MD 4728 Directing II
- MD 4764 Production Design
- MD 4765 Basic Lighting
- MD 4781 Sound Design
- MD 4789 Green Screen Keying and Composition for Production VFX
- MD 4821 Cinematography
- MD 4825 Screenwriting
- MD 4829 Screenwriting II
- MD 4868 Production Practices III
- MD 4872 Visual Storytelling
- MD 4889 Narrative and Social Change

Advertising Strategy & Design

- MD 4723 Advance Animation
- MD 4731 Advertising Research
- MD 4736 Integrated Marketing Communication
- MD 4739 Advertising Design and Concepts
- MD 4754 Creative Aspects in Advertising
- MD 4779 Digital Brand Communication
- MD 4782 Interaction Design
- MD 4787 Digital Design and Publishing
- MD 4833 Brand Management
- MD 4834 Advertising in Pakistan
- MD 4835 Consumer Behaviour
- MD 4837 Media Planning
- MD 4843 Campaign Strategy
- MD 4846 New Media Advertising
- MD 4847 Copywriting

Journalism

- MD 4757 Feature Writing I
- MD 4783 TV Journalism
- MD 4839 Reporting the News
- MD 4859 Introduction to Photojournalism
- MD 4864 Investigative Journalism and Crisis Reporting
- MD 4877 The International Newsroom
- MD 4879 Multimedia Journalism
- MD 4xxx Citizen Journalism
- MD 4xxx Environmental Journalism
- MD 4xxx Fashion Journalism
- MD 4xxx War and Peace Journalism
- MD 4xxx Reporting of Politics and Governance
- MD 4xxx Foreign Correspondence
- MD 4xxx Sports Reporting

ELECTIVES

- MD 4732 Typography
- MD 4774 Media Anthropology
- MD 4776 Media Convergence and Innovation
- MD 4788 Sindh Studies
- MD 4792 Music Production and Design
- MD 4854 Illustration
- MD 4867 Topics in Film and Television
- MD 4873 Modernity in Cinema in Bengal
- MD 4878 Design for Social Change
- MD 4883 Urdu Literature in South Asian Cinema
- MD 4886 Game Design
- MD 4888 Culture and Media in Sindh
- MD 4892 Music Theory and Performance

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.

Certain film and video production courses may require additional fees for equipment rental, film purchases, and travel. The Department of Media Sciences makes every effort to subsidize these costs in order to minimize financial impact on students.

Students enrolled full time are required to take at least 5 courses in each semester. Students unable to enrol full time should consult the Program Manager to discuss any accommodation they might need.

All first semester students are required for 6 courses. In order to register for thesis credits in the final semester, students must have completed minimum of 38 courses. Students on academic probation will not be allowed to register for thesis credits.

Internship

The Faculty of Media Sciences requires all students to complete a 6-week internship at an organization of their choice by the end of their third year. Upon completion of the internship, students must submit a comprehensive summary of what they learned following their internship.

All students are also required to work within the department to organize department's annual media festival in the third year of their degree.



ACADEMIC CALENDAR 2019-20 (Islamabad Campus)

ACADAMIC CALENDAR 2019-20 (Islamabad Campus)

FALL 2019

| WEEK | COMMENTS |
|--------------|---|
| 1 | Course Registration |
| 2 | |
| 3 | |
| 4 | |
| 5 | Teaching Evaluation |
| 6 | Teaching Evaluation |
| 7 | Mid-term Exam for Undergraduate students |
| 8 | Mid-term Exam for Graduate students |
| 9 | |
| 10 | |
| 11 | Last Week to Withdraw from Courses |
| 12 | |
| 14 | |
| 15 | |
| 16 | Final Exam |
| 17 | Final Exam |
| 18 | |
| Aug 28, 2019 | Faculty Meeting/Orientation |
| Sep 02, 2019 | Students Orientation |
| Jan 06, 2020 | Independent Research Study Presentations of MS/PhD students |
| Jan 11, 2020 | Comprehensive Exam |

Classes Commencement Date

Classes will commence from 02 Sep, 2019 at Islamabad Campus.



ACADEMIC CALENDAR 2019-20 (Islamabad Campus)

ACADAMIC CALENDAR 2019-20 (Islamabad Campus)

SPRING 2020

| WEEK | COMMENTS |
|---------------|---|
| 1 | Course Registration |
| 2 | |
| 3 | |
| 4 | |
| 5 | Teaching Evaluation |
| 6 | Teaching Evaluation |
| 7 | Mid-term Exam for Undergraduate students |
| 8 | Mid-term Exam for Graduate students |
| 9 | |
| 10 | |
| 11 | Last Week to Withdraw from Courses |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | Final Exam |
| 17 | Final Exam |
| 18 | |
| Jan 23, 2020 | Faculty Meeting/Orientation |
| Jan 27, 2020 | Students Orientation |
| June 08, 2020 | Independent Research Study Presentations of MS/PhD students |
| June 15, 2020 | Comprehensive Exam |

Classes Commencement Date

Classes will commence from 27 Jan, 2020 at Islamabad Campus.



CAMPUS WISE PROGRAMS OFFERING (FALL 2019)

PROGRAMS OFFERING AT DIFFERENT CAMPUSES OF SZABIST (FALL 2019)

| PROGRAMS | CAMPUS | | | | |
|--|---------|-----------|---------|-----------|-------|
| | Karachi | Islamabad | Larkana | Hyderabad | Dubai |
| Bachelor of Business Administration (BBA) | ✓ | ✓ | ✓ | ✓ | ✓ |
| BA (Hons.) in Business Studies (BABS) | ✓ | | | | |
| BS Accounting & Finance | ✓ | ✓ | | ✓ | |
| BS Entrepreneurship | ✓ | | | | |
| BS Computer Science | ✓ | ✓ | ✓ | ✓ | ✓ |
| BS Software Engineering | | ✓ | | ✓ | |
| BS Media Science | ✓ | ✓ | | | |
| BS Social Sciences | ✓ | ✓ | | | |
| BE Mechatronic Engineering | ✓ | | | | |
| BS Biosciences | ✓ | | | | |
| BS Biotechnology | ✓ | | | | |
| Bachelor of Law (LLB) | ✓ | | ✓ | | |
| Bachelor of Business Studies (BBS) | | | ✓ | ✓ | |
| Bachelor of Education (B.Ed.) | ✓ | | | | |
| Master in Business Administration (MBA) | ✓ | ✓ | ✓ | ✓ | ✓ |
| Executive MBA | ✓ | ✓ | | | ✓ |
| Masters in Project Management | ✓ | ✓ | | | ✓ |
| Professional MBA | | ✓ | | | |
| MBA in Banking & Finance | ✓ | | ✓ | | |
| Masters in Human Resource Management | | ✓ | | | |
| Master of Advertising | ✓ | | | | |
| MA Education | ✓ | | | | |
| MS Public Health (MSPH) | ✓ | | | | |
| MS Biosciences | ✓ | | | | |
| MS Computer Science | ✓ | ✓ | | | ✓ |
| MS (CS) with specialization in Software Engineering | ✓ | ✓ | | | ✓ |
| MS (CS) with specialization in Networks & Security | ✓ | ✓ | | | ✓ |
| MS Media Studies | ✓ | | | | |
| MS Management Science | ✓ | ✓ | | | |
| MS Development Studies | | ✓ | | | |
| MS Data Science | | ✓ | | | |
| MS Educational Leadership and Management | ✓ | | | | |
| MS Project Management | ✓ | ✓ | | | |
| MS Mechatronic Engineering | ✓ | | | | |
| MS Social Science | ✓ | ✓ | | | |
| MS (SS) with specialization in International Relations | ✓ | | | | |
| MS (SS) with specialization in Political Science | | ✓ | | | |
| MS (SS) with specialization in Economics | ✓ | ✓ | | | |
| MS (SS) with specialization in Psychology | ✓ | ✓ | | | |
| MS (SS) with specialization in Sociology | ✓ | ✓ | | | |
| PhD International Relations | ✓ | | | | |
| PhD Economics | ✓ | | | | |
| PhD Psychology | ✓ | | | | |
| PhD Sociology | ✓ | | | | |
| PhD Computing | ✓ | ✓ | | | |
| PhD Management Sciences | ✓ | ✓ | | | |
| PhD Educational Leadership and Management | ✓ | | | | |
| PhD Biosciences | | | | | |

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.

**We Just Don't Work Hard
We Work Smart**



Islamabad Campus

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