We Just Don't Work Hard
We Work Smart
THE VISION

The Shaheed Zulfikar Ali Bhutto Institute of Science and Technology shall be a world class institute recognized globally for its excellence in education, scholarship in research and distinction in service.

THE MISSION

The Shaheed Zulfikar Ali Bhutto Institute of Science and Technology has been established with the objectives of producing highly qualified scientific and technical personnel to meet the country's requirements; conducting state-of-the-art scientific and technological research and development in support of the private and public sectors; providing hi-tech scientific and technological assistance to the Pakistani industry to enable it to compete with the world industries in global trading; providing highly trained scientific and technological personnel to be able to attract the growth of hi-tech industries and foreign and Pakistani investment; and providing a sound socio-economic and scientific base and infrastructure to Pakistan to be able to meet the economic and technological challenges of the 21st century.
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    Fall 2014
    Spring 2015
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, on 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.”

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

At SZABIST, you will be taught by highly qualified faculty and will have an opportunity of selecting courses from a variety of traditional and emerging programs that have all been approved by the Higher Education Commission (HEC) of Pakistan. SZABIST, living up to its mission of spreading education and research to every corner, has five dedicated university campuses: Karachi, Islamabad, Larkana, Hyderabad, and Dubai (UAE).

At SZABIST, you will become part of a community that believes research to be an integral part of its academic excellence, and encourages participation in research and extra-curricular activities, allowing you to realize your true intellectual and professional potential. In addition to a strong academia and research culture, SZABIST also offers numerous scholarships and financial assistance, to make education accessible and affordable for all its students.

Higher education will play an integral role in carving out your professional lives ahead. Choosing the right institution is an important step, hence I wish you all the success in your educational journey, and welcome you to the opportunity to “Discover Yourself”.

Dr. Azra Fazal Pechuho
Chancellor SZABIST
PRESIDENT’S MESSAGE

It gives me immense pleasure in welcoming prospective students to Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST). Over the past many years SZABIST has made remarkable progress in increasing its market reputation both nationally and internationally. This is evident from the increased enrollment in its five campuses (Karachi, Larkana, Hyderabad, Islamabad, and Dubai (UAE)) and the expansion in its academic programs.

SZABIST guided by the vision of its Founding Chancellor, Shaheed Mohtarma Benazir Bhutto, has developed into a leading higher education institution, offering a range of courses from Biosciences and Mechatronic to Law and Media. SZABIST also provides hi-tech scientific and technological assistance to different industries of Pakistan. The Institute, in compliance with the Higher Education Commission (HEC), has developed curricula which not only relate to prevailing market challenges but also train students for the future demands of Pakistan’s growing economy.

SZABIST maintains a high standard of education. We give priority to highly qualified faculty and professionals who provide a conducive and supportive teaching environment. In addition to a wide spectrum of disciplines as presented in this Prospectus, SZABIST offers exciting opportunities for co-curricular activities. Student societies of SZABIST organize guest speaker sessions, arrange workshops, and build networks with the Alumni and renowned companies for assistance in job placements.

Moreover, SZABIST has one of the highest ranking QECs of Pakistan. Quality assurance measures are rigorously applied at the university. The department of Institutional Research/Quality Enhancement Cell at SZABIST has implemented a number of quality measures that have enhanced the standard of education and research.

For the youth of Pakistan aspiring for a high quality, relevant education, SZABIST offers a premium learning environment. SZABIST is a perfect platform where students discover their talents and strengths, and overcome weaknesses to achieve their educational, professional, and personal aspirations. This prospectus provides you with comprehensive information about our programs. We hope you will become part of the SZABIST community of students and graduates.

Ms. Shahnaz Wazir Ali
Acting President, SZABIST
Choosing the right university for admission in undergraduate and graduate studies leading to MS and PhD is a very crucial decision in the life of every student, for their future depends on the choice they make. Wrong decisions can have negative consequences which students realize later on in life when they find themselves lacking the education and skills required in today’s competitive globalized market.

SZABIST, while keeping in mind the standards of quality education and market requirements, prepares students for a leading role in the market at strategic and operational levels by paying special attention to their grooming as corporate and social leaders. It is this unwavering commitment of 18 years that has made SZABIST a top-notch institution of the country. SZABISTians are picked by reputed multinational and national companies, and today they are working at high positions in different government departments, NGOs, and industrial sectors.

To prepare students for a leadership role in the field of Management Science, Computer Science, Media Sciences, Social Sciences, Mechatronic Engineering, Law, and Biosciences, SZABIST has state-of-the-art facilities including well-equipped lecture rooms, libraries, laboratories, first class computing facilities, and cutting-edge R&D facilities. Our academic and research programs are designed to meet the ever-changing demands of the globalized market and we have continuously strived to review and update our curricula to cope with the challenges of the twenty-first century. Our faculty, researchers and professionals along with our students work as a team that creates a salubrious academic atmosphere where everyone is provided with an intellectually enlightening environment to realize his or her potential to the fullest.

As we are living in a digitally connected global village, SZABIST strives to imbibe amongst students the characteristics and values of global culture, with the view that if students go abroad for higher studies, they can easily get absorbed in the host country’s culture. In this connection, SZABIST feels proud of its 18 student societies which give students global exposure to different issues being faced by different communities. Our students come from all walks of life and even different parts of the world, and they are encouraged to achieve their full potential in an environment of dignity and mutual respect. Thus, from SZABIST’s portal have graduated thousands of students well equipped with sound professional education, well-rounded personalities, and a strong work ethic.

I hope that you will enjoy your stay at SZABIST. The skills and knowledge gained during your studies will help you to meet the daily challenges you come across either at the workplace or in your daily lives.

Prof. Dr. Amanat Ali Jibelani
Vice President (Academics)
SZABIST
Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST) is a fully Chartered Institution established through a Legislative Act of Sindh Assembly (Sindh Act No. XI of 1995) and is approved and recognized by the Higher Education Commission (HEC), Pakistan, as a degree awarding institution.

SZABIST is known as one of the reputed and highest ranked by the HEC and Chartered Inspection and Evaluation Committee (CIEC). It comprises of five campuses, four diploma centers, three intermediate colleges, and one research center. Over 5,700 degrees have been awarded by SZABIST to date.

SZABIST has campuses in Karachi, Islamabad, Hyderabad, Larkana, and Dubai (UAE). SZABIST is a registered member of the International Association of Universities (IAU), Paris; Association of Commonwealth Universities (ACU), London; Association of Advance Collegiate Schools of Business (AACSB), Singapore; Federation of the Universities of Islamic World (FUIW), Rabat; Asia University Federation (AUF), Seoul; Asia-Pacific Quality Network, People's Republic of China; Management Association of Pakistan, Karachi; Marketing Association of Pakistan, Karachi, and Human Resource Development Network, Islamabad.

SZABIST is also ranked among the best Science and Technology and MBA schools in Asia by the CNN-Time publication, Asiaweek. SZABIST is also listed in the CNN Executive Education Schools, 2009. SZABIST, thus, has the unparallel honor of being the only Pakistani Institute to be recognized internationally by BusinessWeek, Asiaweek, Asia Inc. and CNN.

SZABIST has signed articulation agreement with the University of Wales, UK. SZABIST has also signed MoUs with various prolific and seasoned organizations and institutions, to name a few: University of London, UK; Universal Academic Management Organization (UAMO), UAE; EMC Computer Systems, Austria; Philippines Women University, Philippines; and the Asian Academy of Film & Television, India.

SZABIST Karachi Campus is located in one of the most prestigious localities of Karachi at 90, 100, 108 134, and 172 Clifton. In January 1996, the first academic session commenced at the Karachi Campus in the Faculties of Management Sciences and Computer Science. Construction is currently being planned at Clifton for building a purpose-built campus for Management, Computer Science, Social Sciences and Media Sciences Departments. Moreover, a permanent engineering campus on 300 acre at the Education City in Malir, about 20 km from the Karachi Toll Plaza and 36 km east of Karachi Airport, and a Medical and Agricultural Complex at the 5000 acre campus at Gharo (about 30 km away from the Education City), are in planning phase.

Graduate education in the faculties, which are important for the scientific and socio-economic development of Pakistan, and which are presently offered only on a limited scale in our country, is offered at SZABIST’s main campuses. More courses would be offered following the completion of construction project.
INTRODUCTION

Electrical Engineering

Biochemical Engineering
Agrochemical, and Pharmaceutical.

Biogenetic Engineering
Plant Genetics, and Animal Genetics.

Liberal Art

Health Sciences

Food Sciences and Technology

Aquaculture and Agriculture Sciences
In addition to the above-mentioned academic faculties, a Software Technology Park and a Technology Development Center to incubate the growth of high-tech industries for the economic and industrial development of Pakistan will also be established by the Institute.
PROGRMS & CURRICA

DEGREES OFFERED
(All degrees including all majors and courses are not offered at all campuses. Check with the local campus for offered degrees).

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 and a 6-credit Research Project. The courses include 42 compulsory courses and 4 electives from Management, Marketing, Finance or IT. To obtain the BBA degree, students have to complete 144 credit hours and an internship. The maximum time limit to complete the BBA degree is seven years. Those who complete the BBA degree from SZABIST will get an exemption in ACCA papers F1, F2, F3 and F4. The program is accredited by National Business Education Accreditation Council (NBEAC).

BS (Social Sciences)
SZABIST offers a four-year (eight semesters) BS Social Sciences degree with majors in Psychology, Sindh Studies, Sociology, Economics, and International Relations. 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 7 years.

BS (Media Sciences)
The Department of Media Sciences at SZABIST offers a comprehensive four-year Bachelor of 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 includes 43 courses, a 6-credit thesis, and an internship. All students must complete their degree within 7 years.

BS (Biosciences)
BS Biosciences at SZABIST is a four-year program spread over eight semesters and consists of 135 credit hours of teaching, 44 courses, an internship of at least six weeks, and a research project. The maximum time limit to complete the BS degree is 7 years.

EMBA
SZABIST offers a two-year EMBA degree program for executives and middle level managers who strive for excellence and greater challenges in their career. The unique program is specially 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, symposium and a wide corporate network. The EMBA program is spread over six semesters and consists of 66 credit hours. Twenty courses, one Business Project (3 credits) and one Research Project (3 credits) are required to graduate. Maximum time limit to complete the EMBA degree is 5 years.
MBA (Masters in Business Administration)
MBA program has been designed to impart quality professional knowledge and understanding of modern management tools, leadership and entrepreneurial skills, and managerial and communication competencies. The program is accredited by National Business Education Accreditation Council (NBEAC).

SZABIST offers both MBA Day and Evening programs with specialized fields of Management, Human Resource Management (HRM), Marketing, Finance, Supply Chain Management, and MIS. A niche MBA program related to Banking & Finance is separately offered besides regular MBA programs. The maximum duration to complete the degree in any MBA program is 5 years.

MBA
(36 credit hours program)
This program is tailored for students with a four-year BBA degree and the minimum duration to complete the program is 1.5 years. The program comprises 10 courses (30 credits) and a Thesis/Research Project (6 credits) of one semester duration. Students are also required to complete a 6-week internship to fulfill their degree requirements.

MBA
(72 credit hours program)
This program is designed for students having a four-year non-business bachelors degree (like BS-CS, BE, MA or M.Sc) or 16 years of education. The duration to complete this program is 2 to 2.5 years. Twenty two courses (66 credits), a Thesis/Research Project (6 credits) and the completion of 6-week internship are required to secure the degree. Students are also required to clear the SZABIST comprehensive exam.

MBA
(90 credit hours program)
This program is developed for students having a 2-3 year undergraduate degree. The duration of the program is 3 to 3.5 years. Twenty eight courses (84 credits) and a Thesis/Research Project (6 credits) are required to complete the program. Students are also required to undertake a 6-week internship along with passing the SZABIST comprehensive exam.

MBA Banking & Finance
(36 credit hours program)
This program is developed for students with a 4-year BBA degree. The duration of the MBA (B&F) is 1.5 years. Ten MBA courses (30 credits) and a Thesis/Research Project (6 credits) are needed to graduate. Students are also required to complete a 6-week internship. The maximum duration to complete this degree is 5 years.

MBA Banking & Finance
(72 credit hours program)
This program is developed for students with a 4-year non-BBA degree/professional degree. The duration of the MBA (B&F) program is 2 to 2.5 years. Twenty-four courses (72 credits) are needed to graduate. Students are also required to complete a 6-week internship and clear the SZABIST comprehensive exam. The maximum duration to complete this degree is 5 years.

MPM (Master in Project Management)
The Master in Project Management is designed to enable individuals to manage complex projects of today through modern project management approaches. MPM is a 1-year evening program comprising 33 credit hours spread over three semesters. Eleven courses are required to graduate. Maximum time limit to complete the MPM degree is 5 years.

Master of Advertising
The Department of Media Sciences at SZABIST offers an evening Master’s degree program in Advertising providing students with a comprehensive training through courses that prepares them to engage in various career options in the advertising industry. To be awarded a Master of Advertising degree, students need to complete a total of 36 credit hours, which includes 10 courses and a 6-credit project. All students must complete their degree within 5 years.

Master of Television Production
The Department of Media Sciences at SZABIST offers an evening Master’s degree program in Television Production. The program offers students
specialized training in the writing, directing, acting, and production of fictional form of television. To be awarded a Master of TV Production degree, students need to complete a total of 36 credit hours which includes 10 courses and a 6-credit project. All students must complete their degree within 5 years.

**MS (Management Sciences)**

SZABIST offers MS degree in the specialized areas of Management, Human Resource Management, Marketing, Finance, and Supply Chain Management. The MS program is an evening program and all classes are held during week days. The program consists of six courses (18 credit hours), two independent studies (6 credit hours), and one research thesis (6 credit hours) with a total of 30 credit hours. Students may also opt for two courses in lieu of research thesis. The maximum time limit to complete the MS degree is 5 years from the date of admission and the minimum time to complete is 1½ years. As per HEC guidelines all MS Students are required to clear GRE or GAT General Test.

**MS (Computer Science)**

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

The program is of 2-year duration and is offered in the evening. It requires 33 credit hours to complete, which consists of 9 courses (27 credit hours) and Thesis/Research Work (6 credit hours). Although students are encouraged to undertake Thesis/Research Work, but they can take two courses in lieu of the Thesis/Research Work in specific domains.

Candidates with a 4-year BS (CS) or equivalent degree or 2-year MCS degree are eligible to apply. 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) during the semesters. For candidates having a 3-year BCS degree, the MS CS Program is a 3-year program. One year is for deficiency conversion courses (30 credit hours)

The maximum time limit to complete the MS degree is 5 years.

**MS (Media Studies)**

The Department of Media Sciences at SZABIST offers a two-year evening MS degree program in Media Studies designed to prepare students for scholarly research and teaching roles. To be awarded an MS in Media Studies, students need to complete a total of 36 credit hours which include 10 courses and 6 credits of a research project or thesis. Students must also pass GAT (General) with a minimum 50% score. All students must complete their degree within 5 years.

**MS (Social Sciences)**


The MS in Social Sciences is an evening program only and consists of 8/10 courses and/or a Thesis / Independent Studies of 30 credit hours. The maximum time limit to complete the MS degree is 5 years.

**PhD**

SZABIST offers PhD degree in Management Sciences, Computer Sciences and Social Sciences that can be completed during the evenings in three years after the MS/MBA degree (18 years of education). Maximum time limit to earn PhD degree is 5 years.

Six PhD courses (4 courses & 2 ISs of 18 credit hours) and a dissertation (30 credit hours) are required to earn the degree. A total of 48 credit hours must be completed. GRE (subject)/GAT (subject) test with minimum 60% is required as per HEC guidelines for all PhD candidates.

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

In Social Sciences, specializations include Economics, International Relations, Political Science, Media Studies, Education, Public Administration, NGO Management, Gender Studies, Philosophy, Psychology, Sociology, Law, Human Rights and Public Policy.
ADMISSION REQUIREMENTS

All applicants will be required to appear in entrance test and group discussion/interview at SZABIST.

BACHELORS

NOTE:
- General paper (A levels) will not be counted.
- Equivalency from Inter Board Committee of Chairmen (IBCC)/Higher Education Commission of Pakistan (HEC), if applicable.

BBA/BS Programs

For admission in the BBA/BS programs, the candidate must have completed A levels (minimum 3-passes)/12th grade/Intermediate with minimum 50% marks, (including first year with no supplementary) or equivalent from a recognized institution (those waiting for results can also apply).

For BS Computer Science, candidates with Mathematical background will be preferred.

BS Biosciences

Candidates are required to have 50% marks in Intermediate (FSc) or 3 A Level passes in at least two subjects (Biology, Chemistry, and Physics).

BE Mechatronic

The candidate must have completed intermediate (Pre-Engineering)/A levels or equivalent with a combination of (Physics, Chemistry and Mathematics) with minimum 60% marks (those waiting for result can also apply).

For the purpose of determining, the grades obtained by candidates having passed Cambridge High School Certificate Examinations with Mathematics, Physics and Chemistry, examinations will be equated as follows:

<table>
<thead>
<tr>
<th>A-Level Grade</th>
<th>Equivalent HSC Intermediate %</th>
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<tbody>
<tr>
<td>A</td>
<td>85</td>
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<tr>
<td>B</td>
<td>75</td>
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<tr>
<td>C</td>
<td>65</td>
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<td>D</td>
<td>55</td>
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<tr>
<td>E</td>
<td>45</td>
</tr>
</tbody>
</table>

Candidates with DAE (Mechanical or Electronics) having at least 60% aggregate marks from an institute recognized by the Government can also apply.

Minimum 60% aggregate marks each in matriculation and Intermediate/equivalent exams.
Please note that no exception in this regard is allowed.

MASTERS

EMBA

For admission in the EMBA program, the candidate must possess a Bachelor’s degree with minimum 50% marks/CGPA of 2.5 from a university recognized by the Higher Education Commission (HEC) in any field of study with 4 years of Managerial level work experience.

Candidates with a minimum GMAT Score of 600, secured in the last 2 years are exempted from the admission test.

MBA Program

36 credit-hour program
For admission in the MBA 36 credit-hour program, the candidate must possess a 4 years BBA or relevant business degree with minimum CGPA of 2.5 from a university recognized by the Higher Education Commission (HEC).

72 credit-hour program
For admission in the MBA 72 credit-hour program, the candidate must possess a 4 years non-business bachelor degree with minimum CGPA of 2.5 or 16 years of education with minimum 55% marks from a university recognized by the HEC.

90 credit-hour program
For admission in the MBA 90 credit-hour program, the candidate must possess 14 years education with minimum CGPA of 2.5 or minimum 55% marks from a university recognized by the HEC.

MBA (Banking & Finance) Program

All those candidates who have either 4-year BBA degree or 4-year professional degree (with minimum CGPA 2.5) or 16 years of education (with minimum 55% marks) from a university rec-
ADMISSION REQUIREMENTS

ogznizers by the HEC will be eligible to apply for admission. Students with a 4-year BBA degree will be exempted from first year and will be given a direct entry in second year.

MPM (Master in Project Management)
For admission in the MPM Program, the applicant must possess a minimum of sixteen (16) years of education/4-year Bachelor/Masters degree from an HEC recognized educational institute with minimum 55% marks/CGPA 2.5.

Master of Advertising
Students with a 4-year undergraduate degree or 16 years of equivalent education in a related field of study with minimum 55% marks/CGPA 2.5 from a university recognized by the HEC are eligible to apply. Students with a 4-year undergraduate degree in business with a focus on marketing are also eligible.

Master of TV Production
Students with a 4-year undergraduate degree or 16 years of equivalent education in a related field of study with minimum 55% marks/CGPA 2.5 from a university recognized by the HEC are eligible to apply. The condition of related field of study may be relaxed for candidates with a work portfolio that supports their application in the program.

MS
For admission to the MS program, candidates must possess 16 years of relevant education with minimum 55% marks/CGPA 2.5 from a university recognized by HEC

For admission in MS Media Studies, students with a 4-year undergraduate degree in a related field of study are eligible to apply. Students with a 4-year undergraduate degree in business with a focus on marketing are also eligible.

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

DOCTORAL DEGREE
A candidate with MA/MS/MBA/M.Phil (with minimum 5.5 years of formal university education in the relevant field) from an HEC recognized university may apply for direct admission into the PhD program.

Candidates with minimum 17.5 years of relevant degree from an HEC recognized university with minimum 60% marks/CGPA 3.00 are eligible to apply for admission in the PhD program. For acceptance into the PhD program, the applicant must pass the admission test and interview with the SZABIST Graduate Committee. The candidate must also pass GAT (subject) with 60% score.

Those who have done 6 credits Thesis individually in their masters programs are eligible to apply for admission in PhD program otherwise they will have to complete the deficiency courses. The final decision is with the Admissions Committee/Doctoral Committee.

For non-relevant degrees, the candidate will be required to register for additional courses as prerequisites as per the guidance provided by the Doctoral Committee.

PhD Degree Requirements:
For completion of the PhD degree, the student must complete a total of 48 credit hours.

Total requirement for a PhD degree at SZABIST through MS is 78 credit hours (30 credit hours for MS and 48 credit hours for PhD).

Major advisor can be changed by doctoral committee at any time if requested by the student on justified grounds.

PhD Degree Process
Qualifying Examination
Coursework (18 credit hours; 6 courses). Course work includes two Independent Studies (ISs)
Comprehensive Examination
Dissertation of 30 credit hours
Final Progress Seminar
At least 1 publication in an HEC approved journal
Dissertation Defense (Open Seminar)
Advanced Research Methods and Techniques (ARMT), Quantitative Tools for Research (QTR)
ADMISSION REQUIREMENTS

and Research Philosophy for Management Sciences, ARMT for Social Sciences, ARMT & Econometrics for Economics students, and RM for Computer Science students are compulsory courses.

The student may be asked to take additional courses as recommended by the Graduate Admissions Committee. Two interdisciplinary courses can be allowed with the approval of both relevant Program Managers subject to the relevancy of courses.

For candidates with an MS degree (minimum 5 years) from an HEC-recognized university (with a minimum of 4 SZABIST equivalent courses), a minimum of 18 credit hours of course work as mentioned above must be completed before registration for Dissertation.

PhD Qualifying Examination

All PhD students must pass the PhD Qualifying Examination within first year of their PhD studies. Maximum attempts of research proposal are two. Approval for extension in time can be given by the Graduate Committee. The first registration in Dissertation will be for 6 credits in which the student will work on his/her PhD Research Proposal. These 6 credits will be counted/included in 30 credit hours of dissertation. PhD research proposal must be presented for suggestions and feedback before the Doctoral Committee.

Dissertation

A student who has successfully passed the PhD Qualifying Examination will be formally accepted as a doctoral candidate. A student may register for 3, 6, 9 or 12 credit hours in regular semesters (Spring or Fall) and 3 credit hours for Summer semester. Registration in first proposal (6 credit hours) is not allowed in Summer semester. Passing comprehensive exam is a prerequisite for registering in PhD Qualifying Examination.

The dissertation may normally be completed within minimum 2 years after the completion of course work and ISs. Approval for extension in time can be given by the Graduate Committee.

Publication Requirements

All PhD candidates are required to write at least one paper from their dissertation and submit it for publication in a refereed journal recognized by the HEC. This paper must at least be provisionally accepted by the journal before the presentation of the final seminar. It is normally expected that the paper will be submitted before submission of dissertation.

Final Progress Seminar

At the end of successful completion of doctoral research and fulfillment of publication requirement, the candidate will be asked to present a Final Progress Seminar before the Doctoral Committee and an external evaluator in an open seminar for suggestions and feedback, if any. With the approval of the Final Seminar by the Doctoral Committee, the candidate will be asked to present the draft of the PhD Dissertation in SZABIST format for final evaluation.

Final Defense

The PhD dissertation draft will be sent to two External Examiners (in technologically advanced countries), to be selected by the Doctoral Committee, for evaluation. After the approval of the PhD Dissertation by the External Examiners, the candidate will be asked to appear for his/her PhD Final Defense by making a formal presentation of the Dissertation to the Doctoral Committee in an open seminar.

The Doctoral Committee may invite the External Examiners and/or experts in the relevant field to the Final Examination.

TEST ALTERNATES

Applicants may submit a minimum 1650 score of SAT 1 for (BBA/BS/BE), 50% score of GMAT for (MBA), 600 score of GMAT for (EMBA), GAT (General)/GRE for MS (Management Sciences), MS (Computer Science), MS (Social Sciences) & MS (Media Studies) and GAT (subject) for PhD.

GAT general is mandatory for MS with minimum 50% score. GAT subject is mandatory for PhD with minimum 60 % score.
ADMISSION REQUIREMENTS

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

Bachelor Course Transfer
A maximum of up to 72 credits may be considered for transfer into BBA/BS/BE programs.

MBA Course Transfer
- A maximum of up to 6 credits may be considered for transfer into the fifth year MBA (36 credit hours) program. Research Project course is not transferable.
- A maximum of up to 36 credits may be considered for transfer into the MBA (72 credit hours) program. Research Project course is not transferable.
- A maximum of up to 45 credits may be considered for transfer into the MBA (90 credit hours) program. Research Project/thesis course is not transferable.

MPM Course Transfer
A maximum of up to 6 credits may be considered for transfer into the MPM program.

EMBA (SZABIST) Course Transfer
Only relevant courses in the EMBA (SZABIST) program are transferable into the regular MBA program subject to the eligibility criteria of the MBA program at SZABIST.

MS Course Transfer
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 Graduate Committee before formal acceptance into the PhD Program. The student may be required to take additional courses as recommended by the Graduate Committee. The student must complete 48 credit hours in total.

SZABIST Inter-Campus Transfer
For transfer from other SZABIST campuses, the candidate must fulfill the admission requirements of the local campus she/he wishes to transfer to, 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, all courses having a letter grade C- or above for the BBA/BS/BE/MBA and grade B or above for MS/PhD are transferable within one year.

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
- Sindh Endowment Fund Scholarships
- Balochistan Endowment Fund Scholarships
- Khyber Pakhtunkhwa Chief Minister’s Endowment Fund
- Pak-USAID Merit and Need-Based Scholarships
- National ICT R&D Fund Scholarships
- Ihsan Trust’s Qarz-e-Hasna Facility
- Various community 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 to qualified PhD candidates in the form of teaching assistantship, associateship, and adjunct faculty positions.

All requests for financial assistance must be made after admission.
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 between Dubai, Islamabad, Larkana, Hyderabad and Karachi Campuses, as well as in conducting seminars/lectures/presentations with foreign universities. Video Conferencing has been the most effective mode at SZABIST in bringing in live and interactive guest lecturers from experts outside the country. 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 has also taken 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. These seminars and lectures are in continuation of the Institute’s policy towards entrepreneurship development and networking. Seminars are conducted/attended by the leading figures from business and industry as these sessions address various business practices.

Business Productivity Courses
The Institute also offers several productivity-oriented 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, new business opportunities or 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 who may feel are deficient in various academic areas. These courses include Business Communication, Technical Writing, Public Speaking, Personal Grooming, Interviewing Techniques and Statistical Package for Social Sciences (SPSS).

Classrooms/Labs/Libraries
Classroom sessions at SZABIST are quite different from other professional university setups. Teachers pay individual attention, thanks 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 PCs along with broadband intranet/internet connectivity.

SZABIST computer laboratories are equipped with high-end computers to cater to students’ requirements. “Campus licensing” of latest software, including development tools, and OSs provide an unmatchable environment compared to majority of well-reputed universities of Pakistan.

SZABIST has computing facilities supported with full 24x7 broadband connectivity of 38 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 library is subscribed to a number of digital
on-line libraries, journals, and databases through which students can access an unlimited number of journals and magazines. This facility is further extended to registered students through SZABIST network on demand. 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.

**EXECUTIVE DEVELOPMENT CENTER**

The Executive Development Center (EDC) at SZABIST, Karachi, facilitates students in completing their degree requirements, professional development, and job/internship placements.

Throughout their 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 corporate world.

EDC compiles students’ profiles and publishes the annual Graduate Directory in order to market SZABIST graduates to credible organizations. Graduate Directory is a useful tool to facilitate job placements.

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).

**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 at the campus in which leading companies are invited to discuss their recruitment policies and procedures, their current resource requirements and future vacancies, and interact directly with the students.

To bridge the gap between classroom and work situation, 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.

**Life on Campus**

Amidst all the academic pressures and workload, SZABIST’s students find time for leisure. Seminars, workshops, projects, on-and off-campus luncheons and dinners are a regular feature of the life of a SZABISTian. Along with these, various clubs and student societies are established by students for curricular and extracurricular activities.

The SZABIST Student Council (SSC) functions as an umbrella organization under which all the following societies/clubs operate:

**ACM:** Association of Computing Machinery (SZABIST Karachi, ACM Chapter)

**AIESEC:** Student Exchange Program Facilitation

**ASME:** American Society of Mechanical Engineers

**CURTAINS:** Performing Arts Society

**IAS:** Islamic Awareness Society

**IEEE-SSB:** Institute of Electrical and Electronics Engineers-SZABIST
LIFE AT SZABIST

KSCLC: Student Branch
Karachi SZABIST Campus
Lions Club

RCoSKM: Rotaract Club of SZABIST
Karachi Midecity

SAS: SZABIST Adventure Society

SES: SZABIST Entrepreneurial Society

SLC: SZABIST Literary Club

SLS: SZABIST Law Society

SMS: SZABIST Marketing Society

SSS: SZABIST Sports Society

SSSS: SZABIST Social Sciences Society

SBS: SZABIST Biosciences Society

YS: Young Senators

ZABMUN: SZABIST Model United Nations

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

1. Alliance Francaise, Karachi
The MoU with AF confirms the partnership between SZABIST and Alliance Francaise, Karachi in organizing the SZABIST Annual Media Festival 2014.

2. British Council and Scottish Documentary Institute
The MoU facilitates collaboration between SZABIST and BCSDI on a documentary film project that will entail screening of a selection of films from the ‘Stories’ project of Scottish Documentary Institute (SDI) and a talk about SDI’s work by Professor Noemie Mendell.

3. US Department of State’s Bureau of Educational and Cultural Affairs
Under the MoU, the US Department of State’s Bureau of Educational and Cultural Affairs and University of Southern California’s (USC) School of Cinematic Arts will conduct two-day workshop at SZABIST Karachi campus for the students of Media Sciences Department.

4. 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.

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

6. FM 100 (Capital FM, Pvt. Limited, Media Group), Islamabad
The MoU is aimed at exploring cooperation between SZABIST and FM 100 in radio projects and capacity building initiatives, and networking and linkages events on diversified subjects.
7. Nur Center for Research & Policy, Lahore
The MoU facilitates collaboration for internships, trainings, research and consultancy projects, and organizing policy advisory forums across Pakistan and in the Middle East and South Asian region.

8. ARK Consulting Group, Islamabad
Under the collaborative agreement, SZABIST and ARK will jointly conduct series of professional workshops and diploma programs.

9. Pakistan Television (PTV) Corporation, Islamabad
The MoU pertains to cooperation in areas such as research, trainings and internships, employment, exchange of experts, access to archival materials, and other capacity building activities.

10. American Abroad Media (AAM)
According to the partnership, SZABIST students will be involved in the studio taping of the four Afghanistan-Pakistan town hall series.

11. 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, workshops, individual mentoring sessions by qualified professionals, and other related activities.

12. Rotary Club, Islamabad, (Pakistan-Afghanistan), Rotary International
The MoU is aimed at exploring and strengthening collaboration in research projects and capacity building initiatives on diverse subjects of common interest.

13. Human Resource Development Network (HRDN), Islamabad
The MoU with HRDN is aimed at exploring and strengthening collaboration in research projects and capacity building initiatives, networking and linkages on diverse subjects of common interest.

14. Ozair Hanafi School of Learning (OHSOL)
Under the MoU, SZABIST and OHSOL would collaborate to strengthen the culture and spirit of entrepreneurship in the country and among the students.

15. Universal Academic Management Organization (UAMO), UAE
Under the collaborative agreement, UAMO will offer credited and non-credited academic and training programs at SZABIST Dubai campus.

16. UN Global Compact Pakistan Local Network Project
The MoU pertains to the development of three case studies on the best socially responsible practices in the country.

17. George Mason University (GMU)
The MoU confirms SZABIST’s participation with GMU’s School of Public Policy for providing higher education solution services to the United States Agency for International Development (USAID) and its units.

18. Peritus, Islamabad
The MoU promotes cooperation between SZABIST and Peritus in research projects and capacity building activities on diversified subjects.

The MoU facilitates joint research, workshops and seminars, and sharing of knowledge and expertise.

20. AGEHI Resource Centre SACHET, Pakistan
The MoU facilitates joint research, dialogue among scholars, faculty exchange, joint diploma or certificate courses, and various capacity building activities.

21. The International Committee of the Red Cross (ICRC)
The MoU pertains to ICRC’s financial contribution to SZABIST Law Society’s International Humanitarian Law Moot Court.
22. EMC Computer Systems Austria GmbH
Under the agreement, EMC shall facilitate the students of SZABIST enrolled in the IT program with free-of-cost elective education programs and possible employment with EMC.

23. Australian Institute of Entrepreneurship (AIE)
The MoU allows AIE and SZABIST to work on enriching vocational education in Pakistan with innovative and dynamic entrepreneurship programs.

24. The University of South Wales
Under the agreement, University of South Wales will confer its degree to SZABIST students on completion of their final year, to be attended in UK, of the undergraduate program BA (Hons) Business Studies.

25. State University of New York at Buffalo (SUNYAB)
The MoU relates to SUNYAB working with SZABIST in the fields of food sciences and technology, animal and plant genetics, textile engineering, electrical engineering, marine biology, and mining engineering.

26. Asia Academy of Film & Television (AAPT), Noida, India
The MoU pertains to the development of programs in media arts and sciences including joint seminars, skill development programs, and student, staff, and faculty exchange.

27. The Philippines Women’s University (PWU), Manila
The MoU is aimed at promoting the educational, social and economic well-being of students and faculty through joint seminars, exchanges, and visits.
FACULTY OF MANAGEMENT SCIENCES

SZABIST prepares 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 IT.

THE PROGRAM AND FACULTY
Every effort has been made to design an academic program at SZABIST which conforms to standards of internationally recognized universities and caters to the needs of businesses and industry.
FACULTY OF MANAGEMENT SCIENCES

BBA
SZABIST offers a four year BBA degree program of 144 credit hours. For the BBA program, the students are required to complete 46 courses and a 6-credit Research Project. The courses include 42 compulsory courses and 4 electives from Management, Marketing, Finance or IT. To obtain the BBA degree, the students have to complete 144 credit hours and an internship. The degree needs to be completed within seven years. Those who complete the BBA degree from SZABIST will get an exemption in ACCA papers F1, F2, F3 and F4.

First Year

Fall Semester
BA 1101 Introduction to Accounting
BA 1102 Microeconomics
BA 1105 English Writing Skills
BA 1106 Islamiat and Pakistan Studies/Humanities
BA 1108 IT in Business
BA 1109 Personal Management and Communication

Spring Semester
BA 1201 Financial Accounting
BA 1202 Macroeconomics
BA 1203 Management Principles
BA 1204 Maths for Business
BA 1206 Oral Communication and Presentation Skills
BA 1211 Logic and Critical Thinking

Second Year

Fall Semester
BA 2301 Introduction to Business Finance
BA 2303 Marketing Principles
BA 2307 Sociology
BA 2311 Business Statistics
BA 2312 Human Behavior
BA 2408 Cost Accounting

Spring Semester
BA 2401 Money and Banking
BA 2402 Retail Management
BA 2403 Business Ethics
BA 2406 Business and Electronic Communication
BA 3504 Organizational Behavior
BA 3507 Consumer Behavior

Third Year

Fall Semester
BA 3501 Financial Markets and Institutions
BA 3508 Media Management
BA 3605 Statistical Inference
BA 4706 Development Economics
BA 4801 Law and Taxation
BA xxxx Optional-I (as offered by Campus)

Spring Semester
BA 3601 Financial Management
BA 3602 Marketing Management
BA 3607 Operations Management
BA 3603 Business Research Methods
BA 4804 Human Resource Management
BA xxxx Optional-II (as offered by Campus)

Fourth Year

Fall Semester
BA 3505 Quantitative Skills
BA 4704 Management Information Systems
BA 4705 Services Marketing
BA 4814 Project Management
BA 4xxx Elective-I
BA 4xxx Elective-II

Spring Semester
BA 3502 Entrepreneurship
BA 3609 Pakistan Economy
BA 4807 Research Project
BA 4xxx Elective-III
BA 4xxx Elective-IV

All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required. Full-time academic load is 6 courses. All students are required to register for
FACULTY OF MANAGEMENT SCIENCES

full load in the first semester.

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

Optional Courses (To be offered by the campus as Compulsory courses)

BA 3519 Current Affairs
BA 3506 Foreign Languages
BA 3619 Enterprise Management
BA 3614 Business Analysis and Forecasting*
BA 4707 Marketing Research*
BA 4701 Islamic Banking and Finance*
BA 4842 Graphic Design for Multimedia*

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

Elective Courses

Management
BA 4116 Supply Chain Management
BA 4117 Salary and Compensation
BA 4711 Change Management
BA 4712 Industrial Relations and Labor Laws
BA 4713 Leadership and Motivation Techniques
BA 4813 Training and Development
BA 4815 Event Management
BA 4826 Talent Management
BA 4812 Recruitment and Selection
BA 4844 Operations Research

Marketing
BA 4707 Marketing Research*
BA 4116 Supply Chain Management
BA 4217 Experiential Marketing
BA 4721 Advertising
BA 4722 Brand Management
BA 4815 Event Management
BA 4816 Industrial Marketing
BA 4824 Sales Management

BA 4842 Graphic Design for Multimedia*
BA 4739 Export Marketing
BA 4125 Emerging Media
BA 4821 Media Planning
BA 4859 Product Innovation and Design

Finance
BA 4218 Financial Research
BA 4719 Investment Banking
BA 4732 Corporate Finance
BA 4734 International Banking
BA 4831 Portfolio and Investment Management
BA 4833 Security Analysis
BA 4834 Treasury and Funds Management
BA 4855 Financial Risk Analysis
BA 4752 Financial Reporting and Analysis
BA 4756 Econometrics
BA 4115 Derivatives
BA 4724 Financial Modeling
BA 4701 Islamic Banking and Finance*
BA 3614 Business Analysis and Forecasting*

Information Technology
BA 4224 e-Marketing Strategies
BA 4714 e-Business and e-Commerce Management
BA 4745 Information System Audit
BA 4822 Media Production
BA 4842 Graphic Design for Multimedia*
BA 4844 Operations Research
FACULTY OF MANAGEMENT SCIENCES

EXECUTIVE MBA

The EMBA is a 2-year program spread over six semesters and consists of 66 credit hours of teaching. Twenty courses, 1 Business Project (3 credits) and 1 Research Project (3 credits) are needed to graduate. Maximum time limit to complete the EMBA degree is 5 years.

First Year

First Semester
BE 492 Business Management
BE 417 Accounting for Business
BE 447 Managerial Communication

Second Semester
BE 413 Quantitative Analysis for Decision Making
BE 415 Contemporary Marketing
BE 421 Economics for Business

Third Semester
BE 414 Business Finance
BE 416 Organizational Behavior
BE 418 Business Research Methods
BE 434 Marketing Management

Second Year

Fourth Semester
BE 423 Human Resource Management
BE 443 Entrepreneurship and Family Businesses
BE 478 Business Project
BE 4xx Elective-I (Marketing, HR, Finance and Supply Chain)

Fifth Semester
BE 419 Strategic Management
BE 444 Ethics and Corporate Governance
BE 4xx Elective-II (Marketing, HR, Finance and Supply Chain)
BE 4xx Elective-III (Marketing, HR, Finance and Supply Chain)

Sixth Semester
BE 445 Managerial Accounting and Control Management
BE 449 Operations and Supply Chain Management

BE 451 Business Application of IT
BE 448 Research Project (3 credits)

ELECTIVES

Marketing
BE 473 Advertising
BE 474 Brand Management
BE 436 Retail Management
BE 432 Services Marketing
BE 472 Media Planning and Management
BE 484 Consumer Behavior

Finance
BE 481 Corporate Finance
BE 424 International Banking and Finance
BE 482 Islamic Banking and Finance
BE 487 Portfolio and Investment Management
BE 488 Project Evaluation
BE 483 Analysis of Financial Statements

Human Resource Management
BE 427 Leadership and Motivational Techniques
BE 471 Compensation Management
BE 486 Training and Development
BE 476 Recruitment and Selection
BE 485 Performance Appraisal

Supply Chain Management
BE 428 Supply Chain Management
BE 493 Dynamics of Logistics and Distribution
BE 494 Operational Planning in Supply Chain
BE 495 Strategic Procurement in SCM

The University reserves the right to change its programs and policies at any time without prior notification. All courses may not be offered every year. Alternate courses may be substituted as and when needed.
FACULTY OF MANAGEMENT SCIENCES

MBA PROGRAM

(36 credit hours program for students with 4-year BBA degree)

For students with a 4-years BBA degree, the duration of the MBA is 1.5-years. Ten MBA courses (30 credits) and a Thesis/Research Project (6 credits) are needed to graduate. Students are also required to complete a 6-week internship. The maximum duration to complete this degree is 5 years.

First Year

Fall Semester
BA 5103  Advanced Research Methods
BA 5104  Strategic Management
BA 5xxx  Elective-I
BA 5xxx  Elective-II

Spring Semester
BA 5203  Strategic Marketing
BA 5208  Strategic Finance
BA 5xxx  Elective-III
BA 5xxx  Elective-IV

Second Year

Fall Semester
BA 5308  International Business
BA 5318  Organizational Development and Analysis
BA 5319  Research Project (6 credits), or
BA 5xxx  Thesis

All courses may not be offered every semester. Alternative courses may be substituted as and when required.

MBA PROGRAM

(72 credit hours program for students with a 4-year non-BBA degree)

For students with a 4-year non-BBA degree/16-years of education, the duration of the MBA program is 2 to 2.5-years. Twenty-two courses (66 credits) and a Thesis/Research Project (6 credits) are needed to graduate. Students are also required to complete a 6-week internship and clear the SZABIST comprehensive exam. The maximum duration to complete this degree is 5 years.

First Year

Fall Semester
BA 5301  Financial Accounting
BA 5419  Business Management and Ethics
BA 5418  Managerial Communication
BA 5305  Statistics and Mathematics for Business
BA 5404  Marketing Principles
BA 5401  Introduction to Business Finance

Spring Semester
BA 5106  Marketing Management
BA 5205  Human Resource Management
BA 5105  Financial Management
BA 5403  Management Information Systems
BA 5406  Entrepreneurship

Second Year

Fall Semester
BA 5206  Business Research Methods
BA 5104  Strategic Management
BA 5208  Strategic Finance
BA 5308  International Business
BA 5xxx  Elective-I
BA 5xxx  Elective-II

Fall Semester
BA 5203  Strategic Marketing
BA 5318  Organizational Development and Analysis
BA 5xxx  Elective-III
FACULTY OF MANAGEMENT SCIENCES

BA 5xxx Elective-IV
BA 5319 Research Project (6 credits), or
BA 5xxx Thesis

All courses may not be offered every semester.
Alternative courses may be substituted as and when required.

MBA PROGRAM
(90 credit hours program for students with a 2 to 3-year undergraduate degree)

For students with 2 to 3-year undergraduate degree, the duration of the MBA program is 3 to 3.5 years. Twenty-eight courses (84 credits) and a Thesis/Research Project (6 credits) are needed to graduate. Students are also required to complete a 6-week internship and clear the SZABIST Comprehensive Exam. The maximum duration to complete this degree is 5 years.

First Year

Fall Semester
BA 5317 English Writing Skills
BA 5306 Computer Orientation and Packages
BA 5301 Financial Accounting
BA 5419 Business Management and Ethics
BA 5311 Personal Management

Spring Semester
BA 5408 Business Economics
BA 5404 Marketing Principles
BA 5418 Managerial Communication
BA 5305 Statistics and Mathematics for Business
BA 5401 Introduction to Business Finance

Second Year

Fall Semester
BA 5403 Management Information Systems
BA 5207 Organizational Behavior
BA 5405 Statistical Inference
BA 5105 Financial Management
BA 5106 Marketing Management

Spring Semester
BA 5406 Entrepreneurship
BA 5205 Human Resource Management
BA 5411 Cost and Management Accounting
BA 5xxx Elective-I
BA 5xxx Elective-II

Third Year

Fall Semester
BA 5206 Business Research Methods
BA 5104 Strategic Management
BA 5208 Strategic Finance
BA 5308 International Business
BA 5xxx Elective-III

Spring Semester
BA 5203 Strategic Marketing
BA 5318 Organizational Development and Analysis
BA 5xxx Elective-IV
BA 5319 Research Project (6 credits) or
BA 5xxx Thesis

All courses may not be offered every semester. Alternative courses may be substituted as and when required.

MBA ELECTIVES

Management
BA 5111 Business Process Re-engineering
BA 5112 Change Management
BA 5113 Industrial Management and Labor Relations
BA 5114 Leadership and Motivation Techniques
BA 5115 Operations Research
BA 5212 Petroleum Business Management and Risk Analysis
BA 5213 Project Management
BA 5214 Supply Chain Management
FACULTY OF MANAGEMENT SCIENCES

BA 5218  Organizational Strategy and Effectiveness
BA 5238  Organization Development

Human Resource Management
BA 5113  Industrial Management and Labor Relations
BA 5114  Leadership and Motivation Techniques
BA 5117  Performance Appraisal
BA 5118  Compensation Management
BA 5128  Leadership Readiness
BA 5216  Training and Development
BA 5215  Recruitment and Selection

Finance
BA 5119  Micro 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 5212  Petroleum Business Management and Risk Analysis
BA 5231  Islamic Banking and Finance
BA 5232  Portfolio and Investment Management
BA 5233  Project Evaluation
BA 5234  Security Analysis
BA 5235  Treasury and Funds Management
BA 5184  Financial Product Regulations
BA 5284  Theory and Practice of Lending
BA 5279  Working Capital Management
BA 5187  Business Analysis and Forecasting
BA 5138  Econometrics

Marketing
BA 5121  Advertising
BA 5122  Brand Management
BA 5123  Consumer Behavior
BA 5124  Customer Relationship Management
BA 5125  Ethics in Marketing
BA 5126  Export Marketing
BA 5127  Global Marketing
BA 5129  Services Marketing
BA 5221  Marketing Research
BA 5223  Marketing of Financial Services
BA 5224  Media Planning and Management
BA 5225  Personal Selling
BA 5226  Pharmaceutical Marketing
BA 5227  Sales Management
BA 5228  Retail Management
BA 5241  e-Commerce
BA 5169  Technology Management and Innovation
BA 5163  Enterprise Resource Planning
BA 5111  Business Process Re-engineering
BA 5168  Business Intelligence
BA 5268  Data Warehousing and Mining

Supply Chain Management
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

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

COMPREHENSIVE EXAMINATION
Students enrolled in the MBA (36 credits) program are not required to take the SZABIST Comprehensive Exam. However, students enrolled in the MBA (72 credits) and MBA (90 credits) programs are required to clear the Comprehensive Exam.

Rules of Comprehensive Exam can be obtained separately from the Examination Department.
FACULTY OF MANAGEMENT SCIENCES

MBA Program (Banking & Finance)

MBA (36 credit hours program for student with a 4-year BBA degree)

For students with a 4-year BBA degree, the duration of the MBA (B&F) is 1.5 years. Ten MBA courses (30 credits) and a Thesis/Research Project (6 credits) are needed to graduate. Students are also required to complete a 6-week internship. The maximum duration to complete this degree is 5 years.

First Year

Fall Semester
- BA 5103 Advanced Research Methods
- BA 5132 Analysis of Financial Statements
- BA 5235 Treasury and Funds Management
- BA 5xxx Elective-I

Spring Semester
- BA 5175 Banking Operations
- BA 5273 Prudential Regulations
- BA 5139 Financial Risk Analysis
- BA 5xxx Elective-II

Second Year

Fall Semester
- BA 5xxx Elective-III
- BA 5xxx Elective-IV
- BA 5319 Research Project (6 credits) or
- BA 5xxx Thesis

All courses may not be offered every semester. Alternative courses may be substituted as and when required.

MBA Program (Banking & Finance)

MBA (72 credit hours program for students with a 4-year non-BBA degree)

For students with a 4-year non-BBA degree/professional degree/16-years of education, the duration of the MBA (B&F) program is 2 to 2.5 years. Twenty-four courses (72 credits) are needed to graduate. Students are also required to complete a 6-weeks internship and clear the SZABIST Comprehensive Exam. The maximum duration to complete this degree is 5 years.

First Year

Fall Semester
- BA 5301 Financial Accounting
- BA 5303 Management Principles
- BA 5305 Statistics and Mathematics for Business
- BA 5403 Management Information Systems
- BA 5304 Business and Electronic Communication
- BA 5302 Microeconomics

Spring Semester
- BA 5106 Marketing Management
- BA 5104 Strategic Management

Second Year

Fall Semester
- BA 5135 Financial Markets and Institutions
- BA 5105 Financial Management
- BA 5205 Human Resource Management
- BA 5402 Macroeconomics

BA 5xxx Elective-I
BA 5xxx Elective-II
FACULTY OF MANAGEMENT SCIENCES

Spring Semester
BA 5417  Advanced Credit Management
BA 5139  Financial Risk Analysis
BA 5235  Treasury and Funds Management
BA 5219  Research Project (3 credits)
BA 5xxx  Elective-III
BA 5xxx  Elective-IV

All courses may not be offered every semester. Alternative courses may be substituted as and when required.

Elective Courses
BA 5xxx  Asset Management
BA 5xxx  Banking Crisis and Management
BA 5xxx  Behavioral Finance
BA 5xxx  Capital Markets
BA 5xxx  Commercial Banking
BA 5xxx  Corporate Investment and Banking
BA 5xxx  Corporate Restructuring and Design
BA 5xxx  Financial Intermediations
BA 5xxx  Financial Modeling
BA 5xxx  Financial Planning and Budgeting
BA 5xxx  Marketing of Financial Services
BA 5xxx  Financial Systems
BA 5xxx  Fixed Income Investments
BA 5xxx  Foreign Exchange Operations and Management
BA 5xxx  Banking Insurance
BA 5xxx  Islamic Banking and Finance
BA 5xxx  Information System Audit

BA 5xxx  International Trade and Finance
BA 5xxx  Leasing Strategies and Regulations
BA 5xxx  Mergers and Acquisitions in Banking
BA 5xxx  Options and Derivatives
BA 5xxx  Project Financing
BA 5xxx  Micro and SME Finance
BA 5xxx  Theory and Policy of Modern Finance
BA 5xxx  Venture Capital and Private Equity
BA 5xxx  Working Capital Management

INTERNSHIIP
All MBA (B&F) students are required to complete a 6-week internship. SZABIST has its separate internship and placement department (EDC) that can help students find a suitable company for their internship. Completion of the internship is a degree requirement for all MBA programs. Students can produce their current employment record as an alternative to the internship program, provided such employment experience is recognized by SZABIST.

COMPREHENSIVE EXAMINATION
Students enrolled in the MBA B&F (36 credits) program are not required to take the SZABIST comprehensive exam. However, students enrolled in the MBA B&F (72 credits) program are required to clear the Comprehensive Exam. Rules of Comprehensive Exam can be obtained separately from the Examination Department.
Masters in Project Management (MPM)
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 evening program comprising 33 credit hours spread over three semesters. Eleven courses are required to graduate. The maximum time to complete the degree is 5 years.

First Year
Fall Semester
PM 5102 Fundamentals of Project Management
PM 5101 Financial Management for Project Management
PM xxxx Elective-I
PM 5310 SAP Training

Spring Semester
PM 5201 Project Scheduling, Planning and Time Management
PM 5301 Project Quality Management
PM 5103 Project Cost Management
PM 5309 Project in Primavera
PM xxxx Elective-II

Summer Semester
PM 5303 Project Monitoring, Evaluation and Control Management
PM 5209 Project

Elective Courses
PM 5151 Enterprise Resource Planning
PM 5152 Innovation and Technology Management
PM 5153 Managing Projects
PM 5251 Procurement and Contract Management
PM 5252 Project Change Management
PM 5253 Project Human Resource Management
PM 5255 Project Change and Risk Management
PM 5351 Project Risk Management
PM 5352 Project Stakeholders Management
PM 5353 Research Methods for Project Managers

All courses may not be offered every semester. Alternative courses may be substituted as and when required.
The students are required to complete 6 courses, 2 Independent Studies (IS), and a thesis, with a total of 30 credit hours. The breakup of 30 credit hours is as follows:

- Three compulsory courses (9 credit hours)
- Two Independent Studies (6 credit hours)
- Three elective courses (9 credit hours)
- Thesis OR two elective courses (6 credit hours)

**First Year**

**Fall Semester**
- MS 5239 Advanced Research Methods and Techniques
- MS 5204 Quantitative Tools for Research
- MS 5416 Research Philosophy
- MS 5xxx Elective-I
- MS 5216 Corporate Governance
- MS 5225 Leadership and Motivation Techniques
- MS 5237 Business Finance and Decision Making
- MS 5238 Strategic Human Resource Development
- MS 5241 Public Administration and Governance
- MS 5301 Seminars in Marketing
- MS 5315 Research Writing

Elective courses may vary from time to time. All courses may not necessarily be offered every year. Alternate courses may be substituted as and when required.

**Second Year**

**Fall Semester**
- MS 5xxx Elective-IV/Thesis
- MS 5xxx Elective-V/Thesis

**COMPULSORY COURSES**
- MS 5204 Quantitative Tools for Research
- MS 5239 Advanced Research Methods and Techniques
- MS 5416 Research Philosophy

**ELECTIVES**
- MS 5101 Change Management
- MS 5102 Organizational Development
- MS 5103 Managerial Economics
- MS 5104 Strategic Marketing Decisions
- MS 5105 Econometrics
- MS 5112 Strategic Management
- MS 5137 Qualitative Tools and Analysis
- MS 5203 Global Corporate Strategy
- MS 5205 International Business Management
- MS 5215 Corporate Finance

Advanced Research Methods & Techniques (ARMT), Quantitative Tools for Research (QTR), and Research Philosophy are compulsory courses for MS program. Students cannot register in Independent Study (IS) without completion of these 03 compulsory courses. In addition passing comprehensive exam would also be required for taking thesis.

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. However, students can register in one IS or thesis (3 credits only). Independent Studies taken in summer will be presented along with Fall semester in a conference. A student can take maximum two interdisciplinary elective courses in SIS/CS/IT/IT/MA/MA program with the prior approval of their respective program managers.
FACULTY OF MANAGEMENT SCIENCES

PhD (Management Sciences)
For completion of PhD degree, students will have to complete a minimum of 54 credit hours. This includes 8 courses (24 credit hours) and one dissertation (30 credit hours). The course work consists of 3 compulsory courses, 3 electives, and 2 independent studies. Maximum course load for a semester is 3 courses (9 credit hours).

Quantitative Tools for Research (QTR), Advanced Research Methods & Techniques (ARMT) and Research Philosophy are pre-requisite courses for Independent Study (IS) and completion of all courses and ISs along with passing the comprehensive examination are pre-requisite for registering in dissertation.

First Year

**Fall Semester**
- MS 6106  *Advanced Research Methods and Techniques*
- MS 6212  *Quantitative Tools for Research*
- MS 6214  Research Philosophy
- MS 6xxx  Elective-I

**Spring Semester**
- MS 6xxx  Elective-II
- MS 6xxx  Elective-III
- MS 6xxx  Independent Study-I
- MS 6xxx  Independent Study-II

Second Year

**Fall Semester**
- MS 6xxx  Dissertation (Proposal)

**Spring Semester**
- MS 6xxx  Dissertation

Third Year

**Fall Semester**
- MS 6xxx  Dissertation

**Spring Semester**
- MS 6xxx  Dissertation

**COMPULSORY COURSES**
- MS 6212  Quantitative Tools for Research

**ELECTIVES**
- MS 6106  Advanced Research Methods and Techniques
- MS 6214  Research Philosophy
- MS 6201  Change Management
- MS 6211  Organizational Development
- MS 6204  Strategic Marketing Decisions
- MS 6202  Econometrics
- MS 6105  Qualitative Tools and Analysis
- MS 6314  Global Corporate Strategy
- MS 6413  International Business Management
- MS 6311  Corporate Governance
- MS 6111  Business Finance and Decision Making
- MS 6112  Strategic Human Resource Development
- MS 6215  Seminars in Marketing

Elective courses in PhD program are co-offered with MS program. Summer is not a regular semester; however, students can register in only one IS or Dissertation of 3 credit hours.

* Those who completed compulsory courses in their MS degree earlier in SZABIST are required to take electives in place of compulsory courses.
BS (Computer Science) program is offered by the Department of Computer Science which runs under the Faculty of Computing and Engineering Sciences. The department offers MS & PhD programs in Computer Science as well. The objective of the BS (Computer Science) program is to inculcate a broad-based basic education in Computer Science and its related areas such as Software Engineering, Information Technology and Telecommunications. 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 program involves 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 and so on.

SZABIST believes in conceptual 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 the 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. BS (CS) Program is accredited by NCEAC. The maximum time to complete the degree is 7 years.

COURSE PLAN (ROADMAP) FOR BS(CS) PROGRAM

<table>
<thead>
<tr>
<th>Sem.</th>
<th>Codes</th>
<th>Course Title</th>
<th>Cr.Hrs.</th>
<th>Pre-Req.</th>
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<td><strong>First Year</strong></td>
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<tr>
<td></td>
<td>CSC 1102</td>
<td>English Composition and Comprehension</td>
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<td></td>
<td>CSC 1103</td>
<td>Fundamentals of Programming</td>
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<td></td>
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<td>Introduction to Computing</td>
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<td>CSC 1105</td>
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<td>CSC 1205</td>
<td>Technical and Business Writing</td>
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<td><strong>Fall Semester</strong></td>
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<tr>
<td></td>
<td>CSC 2102</td>
<td>Data Structures and Algorithms</td>
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<td>Digital Logic Design</td>
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<td>University Elective-I</td>
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<td>Spring Semester</td>
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<td>CSC 3202</td>
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<td>Numerical Computing</td>
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<td>Fall Semester</td>
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<td>CSC 4102</td>
<td>Professional Practices</td>
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<td>CSC 4105</td>
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<td>CSC 4xxx</td>
<td>CS Elective-III</td>
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<td>CSC 4xxx</td>
<td>CS Elective-IV</td>
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<td>CSC 4205</td>
<td>Final Year Project-II</td>
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<td>CSC 4xxx</td>
<td>CS Elective-V</td>
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<td>CSC 4xxx</td>
<td>CS Elective-VI</td>
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<td>CSC 4xxx</td>
<td>CS Elective-VII</td>
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<td>University Elective-II</td>
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<td>Total Credit Hrs. 15</td>
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CS ELECTIVES
CSC 4701 Advanced Internet Architecture
CSC 4801 Advanced Programming Techniques
CSC 4702 Advanced Telecommunication Technologies
CSC 4802 Android Application Development
CSC 4703 Applied Data Mining
CSC 4803 Auditing Information Systems
CSC 4704 Bioinformatics
CSC 4804 Business Process Re-engineering
CSC 4705 Control Systems
CSC 4805 Data and Network Security
CSC 4706 Digital Image Processing
CSC 4806 Digital Signal Processing
CSC 4707 DNA Computing
CSC 4807 Embedded Programming
CSC 4708 Enterprise Resource Planning
CSC 4808 Ethical Hacking
CSC 4709 Internet Business Models
CSC 4809 iOS Development
CSC 4712 IT Innovations
CSC 4711 Linux Administrator-I
CSC 4811 Linux Administrator-II
CSC 4713 Managing Data-Center Projects
CSC 4812 Mechatronics
CSC 4813 Modeling and Simulation
CSC 4714 Network Security and Encryption
CSC 4715 Oracle Administration-I
CSC 4815 Software Engineering-II
CSC 4814 Software Project Management
CSC 4716 Switching and Routing
CSC 4816 Technopreneurship
CSC 4717 Web Technologies-I
CSC 4817 Web Technologies-II
CSC 4718 Wireless and Mobile Technologies

CSC 4503 Introduction to Accounting
CSC 4603 Management Principles
CSC 4504 Organizational Behavior
CSC 4604 Research Report
CSC 4505 Systems Administration

DISTRIBUTION OF CREDIT HOURS

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<tr>
<th>Course Group</th>
<th>Cr. Hrs.</th>
<th>%</th>
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<tbody>
<tr>
<td>Computing</td>
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<tr>
<td>Core Courses</td>
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<tr>
<td>Supporting Areas</td>
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<td>9%</td>
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<tr>
<td>General Education</td>
<td>15</td>
<td>12%</td>
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<tr>
<td>Computer Science</td>
<td></td>
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<tr>
<td>Core Courses</td>
<td>18</td>
<td>14%</td>
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<tr>
<td>Electives</td>
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<td>16%</td>
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<tr>
<td>University Electives</td>
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<td>5%</td>
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<tr>
<td>Total</td>
<td>130</td>
<td>100%</td>
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</table>

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

COMPREHENSIVE EXAMINATION
The Comprehensive Examination must be passed by all BS candidates.
MS Computer Science
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), in order to cater to the market needs. Students have to complete 3 focused courses in any specific domain.

The program is of 2-year duration and is offered in the evening. It requires 33 credit hours to complete, which consists of 9 courses (27 credit hours) and Thesis/Research Project (6 credit hours). Although we emphasize and encourage students to undertake Thesis/Research Project, they can take two courses in lieu of the Thesis/Research Project in specific domains.

The maximum time limit to complete the MS degree is 5 years.

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

First Year
First Semester
CSC 5105 Research Methodology
CSC 5101 Advanced Algorithms Analysis
CSC 5102 Theory of Computation

Second Semester
CSC 5201 Advanced Operating Systems
CSC 5202 Advanced Computer Architecture
CSC 5xxx Elective-I (Independent Study-Topic related to CS Streams-I or II)

Second Year
Third Semester
CSC 5xxx Thesis 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 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 5105 Research Methodology
CSC 5101 Advanced Algorithms Analysis
CSC 5102 Theory of Computation

Second Semester
CSC 5201 Advanced Operating Systems
CSC 5202 Advanced Computer Architecture
SEC 5xxx Elective-I (Independent Study-Topic related to SE Streams-I or II)

Second Year
Third Semester
CSC/SEC 5xxx Thesis OR Course Work (from CS Stream-II or from SE-Stream-II)
SEC 5xxx Elective-II (from SE-Stream-I)
SEC 5xxx Elective-III (from SE-Stream-I)

Fourth Semester
CSC/SEC 5xxx Thesis OR Course Work (from CS Stream II or from SE-Stream-II)
SEC 5xxx Elective-IV (from SE-Stream-I)
Master of Science in Computer Science with Specialization in Networks & Security

First Year

First Semester
CSC 5105 Research Methodology
CSC 5101 Advanced Algorithms Analysis
CSC 5102 Theory of Computation

Second Semester
CSC 5201 Advanced Operating Systems
CSC 5202 Advanced Computer Architecture
NSC 5xxx Elective-I (Independent Study-Topic related to N&S Streams-I or II)

Second Year

Third Semester
CSC/NSC 5xxx Thesis OR Course Work
(from CS Stream-II or from N&S-Stream-II)
NSC 5xxx Elective-II (from N&S-Stream-I)
NSC 5xxx Elective-III (from N&S-Stream-I)

Fourth Semester
CSC/NSC 5xxx Thesis 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 5xxx Real-Time Systems
CSC 5xxx Digital Image Processing
CSC 5xxx Machine Learning
CSC 5xxx Data Mining

CS-Stream-II
CSC 5xxx Reverse Engineering
CSC 5xxx Digital Forensics & Malware Analysis
CSC 5xxx Advanced Resource Sharing Architecture
CSC 5xxx Computer Vision
CSC 5xxx Robotics
CSC 5xxx Advanced Database Design
CSC 5xxx Distributed Computing
CSC 5xxx Systems and Network Programming

SE-Stream-I
SEC 5xxx Software Requirement Engineering
SEC 5xxx Software System Architecture
SEC 5xxx Software System Quality
SEC 5xxx Advanced Software Engineering

SE-Stream-II
SEC 5xxx Software Analysis & Testing
SEC 5xxx Web Engineering
SEC 5xxx Software Project Management

N&S-Stream-I
NSC 5xxx Advanced Computer Networks
NSC 5xxx Network Security
NSC 5xxx Applied Cryptography
NSC 5xxx Information Security

N&S-Stream-II
NSC 5xxx Telecom Policies and Regulations
NSC 5xxx Mobile Ad-hoc Networks
NSC 5xxx Advanced Data Communications

Pre-Requisites:
- For any advanced course, its basic course or pre-requisite course must have been done 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 Comm. 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.

COMPREHENSIVE EXAMINATION
All MS students registered/enrolled in the non-thesis MS program must pass the Comprehensive Examination.

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 study. Dissertation of 30 credits is also required to be completed. The maximum time limit to complete the PhD degree is 5 years.

First Year

Fall Semester
CSC 6101 Research Methodology
CSC 6xxx Elective-I
CSC 6xxx Elective-II

Spring Semester
CSC 6xxx Independent Studies
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 the MS Computer Science program.

PhD course work credits may be implemented via selection of a particular mode of course execution
Mechatronic Engineering

Mechatronic is a multidisciplinary field of engineering. It refers to the efficient and effective integration of mechanical systems and electronics. A mechatronic engineer unites the principles of mechanics, electronics and computing to generate a simpler, economical, reliable, and versatile system. Examples of mechatronic systems include aircraft, motor vehicles, automated manufacturing plants, robots of all types, medical and surgical devices and many others.

Mechatronic at SZABIST

The department offers a program that includes various engineering science courses from the relevant fields in addition to a strong foundation in basic sciences and mathematics. In order to ensure that this academic program at SZABIST conforms to standards of internationally recognized universities, the curriculum has been designed with the guidance of academics and professionals specializing in Mechatronic. The program has received 7 stars (Highest Ranking) by the Chartered of Inspection & Evaluation Committee, Sindh.
Program Objectives
The objectives of the program are to provide a broad and basic education in multiple disciplines comprised of Mechanical, Electronics, and Computer Engineering to ensure that students in the program are exposed to a wide spectrum of engineering knowledge and practice. Upon completion of their degree, the Bachelor of Engineering (Mechatronic) graduates will be able to:

- Understand the interdisciplinary fundamentals of mechanical engineering, electronics engineering, control systems, computer engineering, and their integration.

- Successfully identify problems, design, and optimize integrated solutions by focusing on modern Mechatronic engineering practices.

- Innovate, develop, and adopt new directions in their advance education.

- Demonstrate professional interaction, communicate effectively with team members, and work efficiently on multidisciplinary projects.

BE (Mechatronic Engineering) Program
SZABIST offers a 4-year BE (Mechatronic Engineering) degree comprising eight semesters. BE (Mechatronic Engineering) is a day program and consists of 45 courses (five or six courses per semester) with a total of 140-credit hours (all electives and certain courses may be offered in the evening). The maximum time limit to complete the BE degree is 7 years. To be eligible for the degree, the students will have to complete required credit hours, internship, and pass the Comprehensive Examination.

First Year

**Fall Semester**
ME 1101 Communication and Presentation Skills
ME 1102 Electric Circuits
ME 1107 Engineering Drawing and CAD
ME 1104 Engineering Mathematics-I: Calculus and Analytical Geometry
ME 1108 Introduction to Computer System and Programming
ME 1203 Engineering Physics

**Spring Semester**
ME 1201 Electronic Devices and Circuits
ME 1202 Engineering Mathematics-II: Linear Algebra and Ordinary Differential Equations (ODEs)
ME 1106 Islamic Studies
ME 1204 Engineering Statics
ME 2301 Computer Programming
ME 1207 Engineering Workshop

Second Year

**Fall Semester**
ME 2307 Data Structures and Object Oriented Programming
ME 2302 Digital Logic Design
ME 2303 Engineering Dynamics
ME 2304 Engineering Mathematics-III: 3D Geometry and Vector Calculus
ME 2305 Network Analysis
ME 2306 Pakistan Studies

**Spring Semester**
ME 2401 Electronics Circuit Design
ME 2402 Electro-Mechanical Systems
ME 2403 Engineering Mathematics-IV: Transformation Techniques
ME 2406 Strength of Materials
ME 2405 Thermodynamics
Third Year

**Fall Semester**
- ME 3501 Engineering Mathematics-V: Numerical Methods
- ME 3502 Fluid Mechanics
- ME 3506 Materials and Manufacturing Processes
- ME 3503 Microcontroller Based Systems
- ME 3504 Sensors, Actuators and Instrumentation
- ME 3507 Theory of Machines

**Spring Semester**
- ME 3601 CAD/CAM
- ME 3602 Control Systems
- ME 3603 Engineering Mathematics-VI: Probability and Statistics
- ME 3604 Machine Design
- ME 3605 Power Electronics
- ME 1205 Technical Writing Skills

**Fourth Year**

**Fall Semester**
- ME 4xxx Elective-I (Engineering)
- ME 4702 Engineering Economics and Project Management
- ME 4802 Robotics
- ME 4704 Mechanical Vibrations
- ME 4705 Mechatronics System Design
- ME 4708 Final Year Project-I*

**Spring Semester**
- ME 4801 Industrial Automation
- ME 4xxx Elective-II (Engineering)
- ME 4xxx Elective-III (Management Sciences)
- ME 4703 Heat Transfer
- ME 4808 Final Year Project-II

**Electives**

**Engineering Electives**
- ME 4722 Digital Signal Processing
- ME 4723 Simulation and Modeling

**ME 4821 Digital Image Processing**
**ME 4822 Introduction to Bio-Medical Engineering**
**ME 4721 Artificial Intelligence and Computer Vision**

**Management Sciences Electives**
- ME 4823 Engineering Management
- ME 4724 Entrepreneurship
- ME 4825 Research Methodology
- ME 4725 Leadership and Motivation Techniques
- ME 4824 Organizational Behavior

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

Full-time academic load during first semester 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.

**COMPREHENSIVE EXAMINATION**
The Comprehensive Examination must be passed by all BE candidates.

Students can only appear for the Comprehensive Exam towards the end of their 7th or 8th semester.

*To be continued and graded at the conclusion of 8th Semester.
FACULTY OF SOCIAL SCIENCES

SZABIST prepares students for managerial careers in Social Sciences. 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, International Relations, Economics, Sindh Studies, and Media Studies.
## FACULTY OF SOCIAL SCIENCES

### Department of Social Sciences

#### BS (Social Sciences)
To obtain a BS degree in Social Sciences, the students are required to complete a total of 144 credit hours within 7 years. The degree consists of a total of 46 courses and a Research Project.

### Fall Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>SS 1117</td>
<td>Computer and Web Skills</td>
</tr>
<tr>
<td></td>
<td>SS 1118</td>
<td>English for Academic Purposes and Presentation Skills</td>
</tr>
<tr>
<td></td>
<td>SS 1109</td>
<td>Islamiat/Ethics and Pakistan Studies</td>
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<tr>
<td></td>
<td>SS 1105</td>
<td>Microeconomics</td>
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<tr>
<td></td>
<td>SS 1115</td>
<td>Community Services</td>
</tr>
<tr>
<td></td>
<td>SS 1201</td>
<td>Introduction to Social Sciences</td>
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### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>SS 2306</td>
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<tr>
<td>SS 1205</td>
<td>Macroeconomics</td>
</tr>
<tr>
<td>SS 2307</td>
<td>Sociology</td>
</tr>
<tr>
<td>SS 1155</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>SS 2412</td>
<td>International Relations</td>
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<td>SS 1209</td>
<td>Social Policy</td>
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### Second Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>SS 2314</td>
<td>Study of Anthropology</td>
</tr>
<tr>
<td>SS 2313</td>
<td>Introduction to Social Psychology</td>
</tr>
<tr>
<td>SS 4705</td>
<td>Sindh Studies</td>
</tr>
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<td>SS 2318</td>
<td>Mathematics and Statistics</td>
</tr>
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<td>SS 2413</td>
<td>Philosophy</td>
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<td>SS 1xxx</td>
<td>Elective-I</td>
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#### Spring Semester

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<tr>
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<tbody>
<tr>
<td>SS 2406</td>
<td>Gender Studies</td>
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<tr>
<td>SS 2418</td>
<td>Statistical Inferences</td>
</tr>
<tr>
<td>SS 2414</td>
<td>Introduction to Organizational Psychology</td>
</tr>
<tr>
<td>SS 2411</td>
<td>Environmental Studies</td>
</tr>
<tr>
<td>SS 1255</td>
<td>Linguistics</td>
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<td>Elective-II</td>
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### Third Year

#### Fall Semester

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<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>SS 2312</td>
<td>Culture, Art and Society</td>
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<tr>
<td>SS 3509</td>
<td>Language-I</td>
</tr>
<tr>
<td>SS 3606</td>
<td>Political Economy</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-I</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-II</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-III</td>
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#### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SS 3504</td>
<td>Research Methods</td>
</tr>
<tr>
<td>SS 3605</td>
<td>International Law and Human Rights</td>
</tr>
<tr>
<td>SS 3609</td>
<td>Language-II</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-IV</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-V</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-VI</td>
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### Fourth Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SS 3503</td>
<td>Development Studies</td>
</tr>
<tr>
<td>SS 4707</td>
<td>Introduction to Health Psychology</td>
</tr>
<tr>
<td>SS 4709</td>
<td>Research Project-I</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-VII</td>
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<tr>
<td>SS 4xxx</td>
<td>Major-VIII</td>
</tr>
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<td>SS 4xxx</td>
<td>Major-IX</td>
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#### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>SS 4804</td>
<td>Public Policy</td>
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<td>SS 4809</td>
<td>Research Project-II</td>
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<tr>
<td>SS 2405</td>
<td>Enlightenment</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-X</td>
</tr>
<tr>
<td>SS 4xxx</td>
<td>Major-XI</td>
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<tr>
<td>SS 4xxx</td>
<td>Major-XII</td>
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### ELECTIVES

<table>
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<tr>
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<tr>
<td>SS 1154</td>
<td>Literature</td>
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<tr>
<td>SS 2305</td>
<td>Human Geography</td>
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<tr>
<td>Code</td>
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</tr>
<tr>
<td>SS 1157</td>
<td>Comparative Religion</td>
</tr>
<tr>
<td>SS 1254</td>
<td>World History</td>
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<td>SS 1262</td>
<td>Mass Media</td>
</tr>
<tr>
<td>SS 1163</td>
<td>Development and Politics</td>
</tr>
<tr>
<td>SS 4274</td>
<td>Diplomacy, Conflict Resolution and</td>
</tr>
<tr>
<td>SS 4275</td>
<td>Confidence Building Measures</td>
</tr>
<tr>
<td>SS 4219</td>
<td>Peace Research</td>
</tr>
<tr>
<td>SS 4222</td>
<td>Strategic Studies</td>
</tr>
<tr>
<td>SS 4176</td>
<td>Globalization and Global Governance</td>
</tr>
<tr>
<td>SS 4277</td>
<td>Modern Ideologies</td>
</tr>
<tr>
<td>SS 4174</td>
<td>Central and West Asian Studies</td>
</tr>
<tr>
<td>SS 4175</td>
<td>European Studies</td>
</tr>
<tr>
<td>SS 4177</td>
<td>Middle Eastern Studies</td>
</tr>
<tr>
<td>SS 4179</td>
<td>Politics of Terrorism</td>
</tr>
<tr>
<td>SS 4178</td>
<td>Muslim World</td>
</tr>
<tr>
<td>SS 4276</td>
<td>International Institutions</td>
</tr>
<tr>
<td>SS 4278</td>
<td>Political Geography</td>
</tr>
<tr>
<td>SS 4119</td>
<td>Arms Control and Disarmament</td>
</tr>
<tr>
<td>SS 4279</td>
<td>US and International Politics</td>
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</table>

**MAJORS**

**PSYCHOLOGY**

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>SS 4111</td>
<td>Abnormal Psychology</td>
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<tr>
<td>SS 4112</td>
<td>Developmental Psychology</td>
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<td>SS 4134</td>
<td>Cognitive Psychology</td>
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<td>SS 4135</td>
<td>Educational Psychology</td>
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<td>SS 4234</td>
<td>Psychodynamics</td>
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<tr>
<td>SS 4268</td>
<td>History of Psychology</td>
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<tr>
<td>SS 4167</td>
<td>Child Psychology</td>
</tr>
<tr>
<td>SS 4156</td>
<td>Clinical Psychology</td>
</tr>
<tr>
<td>SS 4114</td>
<td>Personality Theories</td>
</tr>
<tr>
<td>SS 4255</td>
<td>Counseling and Psychotherapy</td>
</tr>
<tr>
<td>SS 4211</td>
<td>Psychological Testing</td>
</tr>
<tr>
<td>SS 4236</td>
<td>Positive Psychology</td>
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<td>SS 4168</td>
<td>Experimental Psychology</td>
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<tr>
<td>SS 4267</td>
<td>Forensic Psychology</td>
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<tr>
<td>SS 4262</td>
<td>Physiological Psychology</td>
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**SOCIOLOGY**

<table>
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<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SS 4269</td>
<td>Civil Society</td>
</tr>
<tr>
<td>SS 4271</td>
<td>Peace Movements</td>
</tr>
<tr>
<td>SS 4138</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>SS 4141</td>
<td>Mass Media and Society</td>
</tr>
<tr>
<td>SS 4237</td>
<td>Post-Colonial State and Social Development</td>
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<tr>
<td>SS 4238</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>SS 4239</td>
<td>Social Justice</td>
</tr>
<tr>
<td>SS 4241</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>SS 4242</td>
<td>The Sociology of Poverty</td>
</tr>
<tr>
<td>SS 4196</td>
<td>Social Theories-I</td>
</tr>
<tr>
<td>SS 4296</td>
<td>Social Theories-II</td>
</tr>
<tr>
<td>SS 4171</td>
<td>Class, Caste, and Ethnicity in South Asia</td>
</tr>
<tr>
<td>SS 4172</td>
<td>Political Sociology</td>
</tr>
<tr>
<td>SS 4272</td>
<td>Social Change in Pakistan</td>
</tr>
<tr>
<td>SS 4169</td>
<td>Citizenship</td>
</tr>
<tr>
<td>SS 4273</td>
<td>Urbanization</td>
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</table>

**INTERNATIONAL RELATIONS**

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>SS 4275</td>
<td>Foreign Policy and International Politics</td>
</tr>
<tr>
<td>SS 4188</td>
<td>Geography and Geology of Sindh</td>
</tr>
<tr>
<td>SS 4287</td>
<td>History and Politics of Sindh</td>
</tr>
<tr>
<td>SS 4288</td>
<td>Irrigation System of Sindh</td>
</tr>
<tr>
<td>SS 4185</td>
<td>Agriculture in Sindh</td>
</tr>
<tr>
<td>SS 4285</td>
<td>Archaeology of Sindh</td>
</tr>
<tr>
<td>SS 4186</td>
<td>Anthropology and Culture of Sindh</td>
</tr>
<tr>
<td>SS 4286</td>
<td>Art and Architecture in Sindh</td>
</tr>
<tr>
<td>SS 4187</td>
<td>Ethnomusicology of Sindh</td>
</tr>
<tr>
<td>SS 4289</td>
<td>Sindh’s Economy and Commerce</td>
</tr>
<tr>
<td>SS 4292</td>
<td>Survey of Sindhi Literature</td>
</tr>
<tr>
<td>SS 4189</td>
<td>Philosophy of Sindh</td>
</tr>
<tr>
<td>SS 4192</td>
<td>Sindh’s Sociology-I</td>
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</table>
Education and Language Policy
SS 4193  Sindh’s Sociology-II:
Social Structures and Development
SS 4194  Sindh’s Sociology-III:
Health, Gender, and Feminism
SS 4293  The Sindhi Diaspora
SS 4291  Sindh’s Geopolitical Exigencies
SS 4191  Sindh’s Botanical and
Zoological Heritage

All courses may not necessarily be offered every year. Alternate courses may be substituted as and
when required. Full time academic load is six courses. All students are required to register for full load in
the first semester.

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

MS (Social Sciences)
Students are required to complete 6 courses, 2 Independent Studies (ISs), and a thesis, with a
minimum of 30 credit hours. The break-up of 30 credit hours is as follows:

- *2 Compulsory Courses
- 2 Independent Studies (ISs)
- 4 Electives
- Thesis/2 additional courses instead of thesis

**First Year**

**Fall Semester**
SS 5117  Advanced Research Methods and
Techniques
SS 5207  Quantitative Tools for Decision Making
SS 5xxx  Elective-I
SS 5xxx  Elective-II

**Spring Semester**
SS 5116  Econometrics
SS 5108  Independent Study-I
SS 5xxx  Elective-III
SS 5xxx  Elective-IV

**Summer Semester**
SS 5208  Independent Study-II

**Second Year**

**Fall Semester**
SS 5xxx  Thesis/2 additional courses instead
of Thesis

**ELECTIVES**
SS 5326  Research Philosophy
SS 5223  Financial Time Series
SS 5227  Research Writing
SS 5104  Politics of Geo-Economics
SS 5111  Democratization as a Global Process
SS 5212  NGO Management
SS 5214  Public Policy Management
SS 5305  Political Economy of Pakistan
SS 5306  Sacred and Secular
SS 5311  Environmental Studies
SS 5312  Globalization and Developing
Countries
SS 5313  Intellectual Property Rights and Laws
SS 5322  Topics of Political Economy
SS 5226  Issues in Pakistan’s Political and
Constitutional History
SS 5321  History of Ideas
SS 5313  Intellectual Property Rights and Laws
SS 5228  Corporate Governance
SS 5206  Political Economy in the
Global Perspective
SS 5402  Law and Human Rights

*ARMT for Social Sciences, and ARMT & QTR for Economics
major students.
PhD (Social Sciences)

Students are required to complete a total of 48 credit hours with 4 courses, 2 Independent Studies (IS) and a dissertation. The following is the break-up of the 48-credit hour courses:

- 1-2 Compulsory Courses (3-6 credit hours)
- 2-3 Core/Elective (6-9 credit hours)
- 2 Independent Studies (6 credit hours)
- 1 Thesis (30 credit hours)

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
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<tbody>
<tr>
<td>SS 6106 Advanced Research Methods and Techniques</td>
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<tr>
<td>SS 6103 Quantitative Tools for Decision Making</td>
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<tr>
<td>SS 5xxx Elective-I</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
<th></th>
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<tbody>
<tr>
<td>SS 6108 Independent Study-I</td>
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<tr>
<td>SS 6208 Independent Study-II</td>
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<tr>
<td>SS 5xxx Elective-II</td>
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<table>
<thead>
<tr>
<th>Summer Semester</th>
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<tr>
<td>SS 6x09 Dissertation</td>
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Second Year

<table>
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<tr>
<th>Fall Semester</th>
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<tbody>
<tr>
<td>SS 6x09 Dissertation</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>SS 6x09 Dissertation</td>
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</table>

ELECTIVES

- SS 5104 Politics of Geo-Economics
- SS 5111 Democratization as a Global Process
- SS 5212 NGO Management
- SS 5214 Public Policy Management
- SS 5305 Political Economy of Pakistan
- SS 5306 Sacred and Secular
- SS 5311 Environmental Studies
- SS 5312 Globalization and Developing Countries
- SS 5313 Intellectual Property Rights and Laws
- SS 5228 Corporate Governance
- SS 5206 Political Economy in the Global Perspective
- SS 5402 Law and Human Rights

Two interdisciplinary courses can be allowed with the approval of both the Program Managers subject to the relevance of courses. Elective courses may vary from time to time.

*ARMT for Social Sciences, and ARMT & QTR for Economics students are compulsory.
FACULTY OF SOCIAL SCIENCES

Department of Media Sciences

In the 21st century, media in their myriad forms, print, TV, radio, film, video, digital, virtual, and mobile have 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 Department of Media Sciences at SZABIST offers the following undergraduate and graduate degree programs:

- Bachelor of Media Science (Film & TV Production, Advertising Strategy & Design, and Journalism)
- Master of Advertising
- Master of Television Production
- MS Media Studies

Bachelor of Media Sciences

The Department 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 includes 43 courses, a 6-credit thesis, and internships. Forty-three courses include: 33 core courses, 7 major requirements in Film and Television Production, Advertising Strategy & Design, or Journalism, and 3 open electives. All students must complete their degree within 7 years.

First Year

Fall Semester
MD 1107 Drawing and Perspective
MD 1102 English Writing Skills
MD 1116 Civilization Studies-I
MD 2322 Visual Communications
MD 3601 Art of Music
MD 1115 Introduction to Media Industries

Spring Semester
MD 1104 Culture, Media, and Society
MD 1106 Photography
MD 1119 Play Analysis

MD 1216 Civilization Studies-II
MD 2323 Production Practices-I
MD 2402 Islamiat and Pakistan Studies/Humanities

Second Year

Fall Semester
MD 1211 Basic Design
MD 2325 Media Research
MD 1217 Introduction to Sound
MD 2321 History and Aesthetics of Film
MD 2313 Idea Development
MD 2423 Theater Project
Spring Semester
MD 1118  Topics in Asian Literature
MD 2318  History of Commercial Art
MD 2427  Design Practices-I
MD 3523  Production Practices-II
MD 3505  Principles of Journalism
MD 2425  Audiovisual Editing

Third Year

Fall Semester
MD 1213  Creative Writing
MD 3518  Animation and Motion Graphics
MD 3527  Design Practices-II
MD 3511  Radio Channel Project-I
MD 2424  Media Psychology
MD 4714  Producing Short Narratives

Spring Semester
MD 2405  Media Laws and Ethics
MD 4xxx  Major-I
MD 4xxx  Major-II
MD 4xxx  Major-III
MD 4xxx  Major-IV
MD 4xxx  Elective-I

Fourth Year

Fall Semester
MD 4701  State and Nation Building in Pakistan
MD 4xxx  Major-V
MD 4xxx  Major-VI
MD 4xxx  Major-VII
MD 4xxx  Elective-II

Spring Semester
MD 4807  Thesis-I
MD 3506  Theories of Visual Culture
MD 4xxx  Elective-III

Summer Semester
MD 4808  Thesis-II

MAJORS
Film & Television Production
MD 4765  Basic Lighting

MD 4726  Directing-I
MD 4825  Screenwriting
MD 4821  Cinematography
MD 4764  Production Design
MD 4724  Documentary Vision
MD 4868  Production Practices-III

Advertising Strategy & Design
MD 4739  Advertising Design and Concept
MD 4847  Copywriting
MD 4736  Integrated Marketing Communication
MD 4846  New Media Advertising
MD 4837  Media Planning
MD 4782  Interaction Design
MD 4755  Brand Identity Management

Journalism
MD 4839  Reporting the News
MD 4759  Editing, Subediting, and Design
MD 4757  Feature Writing-I
MD 4864  Investigative Journalism and Crisis Reporting
MD 4879  Multimedia Journalism
MD 4783  TV Journalism
MD 4859  Introduction to Photojournalism

ELECTIVES
MD 4862  Advanced Studio Project-I
MD 4786  Directing for Actors
MD 4867  Topics in Film and Television
MD 4886  Game Design
MD 4732  Typography
MD 4854  Illustration
MD 4877  The International Newsroom
MD 4882  Audio Podcasting

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

Students enrolled full time are required to take at least 5 courses each semester. Students unable to enroll full time should consult the Head of Depart-
FACULTY OF SOCIAL SCIENCES

ment and the Program Manager to discuss any accommodation they might need. All first semester students are required to register for 6 courses.

INTERNSHIP
The Department 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.

Master of Advertising
The Department of Media Sciences at SZABIST offers an evening Master’s degree program in Advertising providing students a comprehensive training through courses that prepares them to engage in various career options in the advertising industry. To be awarded a Master of Advertising degree, students need to complete a total of 36 credit hours, which includes 10 courses and a 6-credit research project. All students must complete their degree within 5 years.

First Year

Fall Semester
MD 5102 Media and Contemporary Culture
MD 5207 Media Evolution and Innovation
MD 5161 Integrated Marketing Communications
MD 5141 Idea Development

Spring Semester
MD 5261 Advertising Research
MD 5262 Brand Management
MD 5263 Consumer Behavior

Second Year

Fall Semester
MD 5349 Research Project

Master of TV Production
The Department of Media Sciences at SZABIST offers an evening Master’s degree program in Television Production. The program offers students specialized training in the writing, directing, acting, and production of fictional form of television. The mission of this program is to help develop the technical and professional skills individuals required to participate in a national media environment. To be awarded a Master of TV Production degree, students need to complete a total of 36 credit hours, which includes 10 courses and a 6-credit research project. All students must complete their degree within 5 years.

First Year

Fall Semester
MD 5142 Acting Fundamentals
MD 5145 Story and Script for Television
MD 5144 Audio Visual Editing for Television
MD 5146 Visual Structure-I

Spring Semester
MD 5245 Acting for Camera
MD 5247 Narrative Direction
MD 5246 Visual Structure-II
MD 5xxx Elective-I
FACULTY OF SOCIAL SCIENCES

**Summer Semester**  
MD 5341  Production Design  
MD 5xxx  Project-I

**Second Year**

**Fall Semester**  
MD 5xxx Elective-II  
MD 5xxx Project-II

**MS Media Studies**

The Department of Media Sciences at SZABIST offers a 2-year evening MS degree program in Media Studies designed to prepare students for scholarly research and teaching roles. To be awarded an MS in Media Studies, students need to complete a total of 36 credit hours, which includes 10 courses and 6 credits of research or thesis. All students must complete their degree within five years.

Students who successfully complete their MS degree may apply for the PhD program in the Department of Social Sciences. Students accepted into the PhD program will need to complete a doctoral dissertation within three years of enrollment and to fulfill all requirements, including necessary course work and research as outlined by the Department of Social Sciences and required by the Higher Education Commission of Pakistan.

**Eligibility**

Students with a 4-year undergraduate degree in a related field of study are eligible to apply. Students with a 4-year undergraduate degree in Business with a focus on marketing are also eligible.

**First Year**

**Fall Semester**  
MD 5102  Media and Contemporary Culture  
MD 5207  Media Evolution and Innovation  
MD 5104  Research Methodology

**Spring Semester**  
MD 5106  Media Policy  
MD 5212  Theories of Visual Culture  
MD 5112  Media and Post-Colonialism

**Second Year**

**Fall Semester**  
MD 5103  Media Management  
MD 5201  Communication for Social Change  
MD 5xxx  Elective-I

**Spring Semester**  
MD 5xxx  Elective-II  
MD 5109  Thesis-I

**ELECTIVES**  
MD 5xxx  Media, Politics, and Governance  
MD 5xxx  Issues in International Media  
MD 5xxx  Theories of Communication Design  
MD 5xxx  Visual Cultures of Pakistan  
MD 5xxx  National Cinemas  
MD 5xxx  Genres in Television  
MD 5xxx  Theories of Film and Television  
MD 5xxx  Urban Geographies and Visual Cultures  
MD 5xxx  Media, Art, and Technology
FACULTY OF BIO SCIENCES

SZABIST’s BS Biosciences program is designed to give students a sound and broad academic base for a professional and rewarding career in biological fields. It blends theoretical and practical knowledge, critical thinking and real life experience to equip students with marketable skills. This degree offers students the opportunity to study a broad range of disciplines in biological sciences.

THE PROGRAM & FACULTY

The program aims to produce graduates with firm knowledge of basic concepts of Biology and their current applications. It aims to provide training in the fundamentals of ever-changing fields of health, agricultural, pharmaceutical, and genome sciences.

Upon completion of the program, students will have a broad knowledge of biological sciences and other related discipline with high level of understanding and appreciation in certain specialized areas, including cell and tissue culture techniques, genetic manipulations, drug design and therapeutic, molecular biology, and advanced analytical techniques.
FACULTY OF BIOSCIENCES

Lab Facilities
SZABIST is equipped with hi-tech and state-of-the-art scientific laboratories that conduct research, which is at par with international standards. The labs include:

- Sterile rooms for plant tissue culture
- Organotypic tissue culture lab
- Diagnostic labs
- Molecular biology labs
- Green-net house facility

Job Placement Possibilities
- Food Industry
- Biochemical Industry
- Biotechnology Companies
- Health sector-Clinics/Hospital
- Pharmaceutical Industry
- Bioinformatics Software Houses
- Research Centers
- Academia

BS Biosciences
The program is in line with the criteria set by the Higher Education Commission of Pakistan. BS Biosciences at SZABIST is a 4-year program of 8 semesters. Graduation requirements are 135 credit hours, an internship of at least 6 weeks and a research project with in 7 years.

First Year

Fall Semester
BIO 2301 Biochemistry-I
BIO 1103 English-I
BIO 1107 Fundamental Mathematics
BIO 1209 Introduction to Microbiology
BIO 1206 Physiology-I

Spring Semester
BIO 1207 Advanced Microbiology
BIO 2401 Biochemistry-II
BIO 1202 English-II
BIO 3504 Immunology
BIO 1208 Statistics
BIO 2305 Physiology-II

Second Year

Fall Semester
BIO 1101 Cell Biology
BIO 2307 Plant Tissue Culture
BIO 2405 Hematology
BIO 1104 Introduction to Computing
BIO 2303 Islamiat and Pakistan Studies/Humanities
BIO 2404 Lab Management

Spring Semester
BIO 2406 Genetic Engineering
BIO 3502 Endocrinology
BIO 4803 Molecular Biology
BIO 3604 Neurochemistry
BIO 2306 Psychology

Third Year

Fall Semester
BIO 2402 Bioinformatics
BIO 2302 Biotechnology
BIO 3506 Animal Cell and Tissue Culture
BIO 3503 Genetics
BIO 3505 Pharmacology-I

Spring Semester
BIO 4801 Bioethics
BIO 3606 Advanced Biotechnology
BIO 2403 Environmental Science
BIO 2304 Nutrition and Dietetics
BIO 3605 Pharmacology-II
BIO 4xxx Elective-I
FACULTY OF BIOSCIENCES

Fourth Year

Fall Semester
BIO 3601 Agricultural Science
BIO 3602 Human Anatomy
BIO 4702 Introduction to Pathology
BIO 4703 Research Methodology
BIO 4xxx Elective-II
BIO 4xxx Elective-III

Spring Semester
BIO 4802 Biophysics
BIO 4701 Business Management
BIO 4804 Research Report
BIO 4704 Toxicology
BIO 4xxx Elective-IV

ELECTIVES

Molecular Biology:
BIO 4721 Advanced Biochemical Techniques
BIO 4722 Medical Transcription
BIO 4723 Virology
BIO 4822 Nanotechnology
BIO 4725 Advanced Molecular Techniques
BIO 4726 Applied Enzymology
BIO 4827 Systems Biology

Biotechnology:
BIO 4721 Advanced Biochemical Techniques
BIO 4724 Telemedicine
BIO 4823 Stem Cell Research
BIO 4727 Food Biotechnology
BIO 4825 Fermentation Biotechnology
BIO 4726 Applied Enzymology
BIO 4826 Medical Biotechnology
INTERNATIONAL PROGRAMS

LLB
The University of London International LLB Programme is an evening programme which can be completed in three years. The LLB degree awarded by University of London, UK through the International Programme has the same academic standard as a degree awarded to a student studying at the University of London. The main syllabus has been set and the course outlines are designed by the University of London.

BA (Hons) BUSINESS STUDIES (BABS)
SZABIST offers a 3-year BA (Hons) Business Studies (BABS) degree from the University of South Wales, UK. Students can earn a diploma after completing two years of study at SZABIST or proceed ahead to attain BA (Hons) Business Studies degree at the University of South Wales. The curriculum is fully mapped and matched with the BA (Hons) in Business Studies curriculum at the University of South Wales.
INTERNATIONAL PROGRAMS

LLB

Entrance Requirements
To be eligible to register for the LLB, a student must normally be at least 17 years of age at the time of registration and have passes in:

- Either two subjects at GCE A level, and at least three further subjects at GCSE or GCE O level (at not less than grade C)

  Or

  Three subjects at GCE A level (with one A Level at not less than grade D)

  Or

  Three subjects at GCE A level, and one further subject at GCSE or GCE O Level (at not less than grade C)

  Or

  Two subjects at GCE A Level, and two further subjects at AS Level.

- Bachelors degree (in any discipline) awarded by an institution acceptable to the University of London.

- A 4-year bachelor degree (in any discipline) awarded by an institution acceptable to University of London may register for LLB degree under the Graduate Entry Route. Students who register via this route are only required to complete 9 courses (instead of 12) for the LLB degree.

Tests of proficiency in English (provided this has been awarded within the past 3 years)

- International General Certificate of Secondary Education (IGCSE): English as a Second Language passed at grade C or above.

- International English Language Testing System (IELTS) when an overall score of at least 6 is achieved with a minimum of 5.5 in each sub-test.

- (TOEFL) iBT Test of English as a Foreign Language with an overall score of 87 or above with at least 21 in both Reading and Writing Skills sub-tests and at least 19 in both Speaking and Listening sub-tests.

CURRICULUM
Upon completion of the following curriculum at SZABIST, students may apply to become a member of any prestigious Inns of Court, UK, or be eligible for admission to the LLM programme.
INTERNATIONAL PROGRAMS

First Year

Criminal Law
Public Law
Common Law Reasoning and Institutions
Elements of the Law of Contract

Second Year/Third Year

Law of Trusts
Law of Tort
Land Law
Jurisprudence and Legal Theory
Law skills portfolio (pathway 1 or pathway 2)
EU Law

Plus any three subjects from:
Introduction to Islamic Law
Company Law
Law of Evidence
Intellectual Property
Administrative Law
Public International Law
# INTERNATIONAL PROGRAMS

## BA (Hons) Business Studies (BABS)

### Admission Requirements
The candidate must have completed A Level (minimum 3 passes)/ Intermediate (minimum 50% marks) or equivalent from a recognized institution.

### Curricula
Upon completion of the following curriculum at SZABIST, students can proceed for the final year to the University of South Wales, and get their Bachelor's Degree.

## First Semester

### Fall
- BA 1101  Introduction to Accounting
- BA 1102  Microeconomics
- BA 1103  Introduction to Computers
- BA 1104  Personal Management
- BA 1105  English Writing Skills
- BA 1204  Maths for Business

## Second Semester

### Spring
- BA 1201  Financial Accounting
- BA 1202  Macroeconomics
- BA 1203  Management Principles
- BA 1206  Oral Communication and Presentation Skills
- BA 2305  Statistics and Mathematics for Business
- BA 3604  Computer Programming for Managers

## Third Semester

### Summer
- BA 2301  Introduction to Business Finance
- BA 2302  Graphic Design in Multimedia Presentations
- BA 2404  Calculus

## Fourth Semester

### Fall
- BA 2303  Marketing Principles
- BA 2304  Managerial Accounting
- BA 2306  Social Sciences
- BA 2403  Business Ethics
- BA 3504  Organizational Behavior
- BA 3605  Statistical Inference

## Fifth Semester

### Spring
- BA 3505  Quantitative Skills
- BA 3601  Financial Management
- BA 3602  Marketing Management
- BA 4704  Management Information Systems
- BA 4721  Advertising
- BA 4801  Law and Taxation

### Third year at the University of South Wales
- Customer Service Excellence
- Strategic Management
- Law for Managers
- European Business Environment

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PROSPECTUS 2014
# Academic Calendar 2014-15 (Karachi Campus)

## Fall 2014

<table>
<thead>
<tr>
<th>WEEK</th>
<th>COMMENTS</th>
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<tbody>
<tr>
<td>1</td>
<td>Registration for Courses</td>
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<td>IS Thesis Advisors Meeting</td>
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<td>Teaching Evaluation</td>
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<td>Teaching Evaluation</td>
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<td>Mid-Term Exam for Undergraduate Students</td>
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<td>8</td>
<td>Mid-Term Exam for Graduate Students</td>
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<td>Last Week to Withdraw from Courses</td>
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<td>16</td>
<td>Final Exams</td>
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<td>Aug 16, 2014</td>
<td>All Faculty Meeting</td>
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<td>Aug 20, 2014</td>
<td>IS Thesis Advisors Meeting</td>
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<td>Dec 13, 2014</td>
<td>Independent Study Presentations for MS/PhD students/ 4th International Research Conference</td>
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<td>Dec 27, 2014</td>
<td>Comprehensive Exam</td>
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## Classes Commencing Dates

Karachi Campus: August 12, 2014  
Hyderabad Campus: August 18, 2014  
Larkana Campus: September 8, 2014
# ACADEMIC CALENDAR 2014-15 (Karachi Campus)

## SPRING 2015

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<td>Final Exams</td>
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</table>

- **Jan 10, 2015**  All Faculty Meeting  
- **May 9, 2015**  Independent Study Presentations for MS/PhD students/ 21st National Research Conference  
- **May 30, 2015**  Comprehensive Exam

## Classes commencing dates

- Karachi Campus: January 5, 2015  
- Hyderabad Campus: January 12, 2015  
- Larkana Campus: January 12, 2015
### Programs Offering (Fall 2014) at SZABIST

<table>
<thead>
<tr>
<th>Programs</th>
<th>Karachi</th>
<th>Islamabad</th>
<th>Larkana</th>
<th>Hyderabad</th>
<th>Dubai</th>
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</tbody>
</table>

**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
SZABIST

Discover Yourself

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Discover Yourself
I extend a warm welcome to the potential students of the Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST) - a highly prestigious institute of higher education.

At SZABIST, we believe in education that helps our students build innovative thoughts and teaches them the value of hard work and diligence. Prospectus 2014 is a testament that today SZABIST has developed into a strong multidisciplinary institution with campuses in Karachi, Hyderabad, Larkana, Islamabad and Dubai.

With the vision of Shaheed Zulfikar Ali Bhutto and guidance of Shaheed Mohtarma Benazir Bhutto, SZABIST has evolved into a world class institute globally recognized for its excellence in education, research, and in producing highly qualified scientific and technical graduates.

To support the robust academic and research curriculum, we offer state-of-the-art facilities to our students and an environment conducive to learning and development. Our goal is to ensure that you have a successful session at SZABIST.

Our Administration and Academic Wings have been enthusiastically preparing and look forward to journeying with you in what will be an exciting period. We are confident that you will enjoy excellence in the respectful and caring environment of our institute.

I am confident that Prospectus 2014 will serve as a useful guide in planning out your academic tenure at SZABIST. I extend my best wishes to all of you for a wonderful educational experience and invite you on a journey of self-discovery.

Ms. Nasreen Haque
Vice President (Administration & Finance)
SZABIST