



**DHA  
SUFFA  
UNIVERSITY**  
Learn to discover at Pakistan's  
fastest growing university



**PROSPECTUS**  
**2018-2019**



# CHANCELLOR OF THE UNIVERSITY



**Lt Gen Humayun Aziz, HI(M)**  
Commander 5 Corps  
President Executive Board, DHA Karachi

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**Vice Chancellor DHA Suffa University**

**Registrar DHA Suffa University**

**Secretary DHA Karachi**

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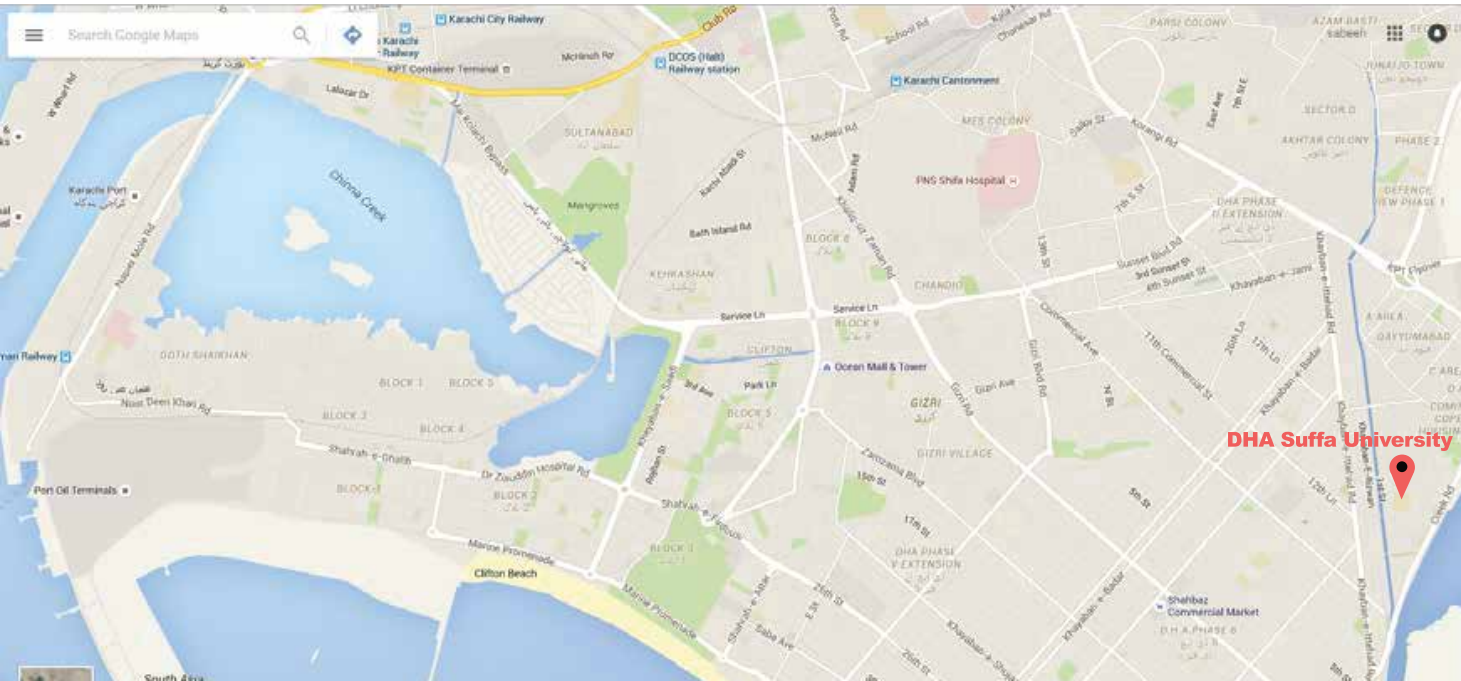


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# CAMPUS LOCATION



## DHA SUFFA UNIVERSITY A PREMIER INSTITUTION

DHA Karachi has always given due emphasis to the uplift of education and continues to take active measures towards ensuring that quality education is made accessible to the Pakistani youth. In the year 2002, it became the first DHA in Pakistan to obtain the Charter for establishing a University.

The 'DHA Suffa Foundation', under the patronage of DHA Karachi, aims to strive for the promotion and uplift of higher education and to act as a catalyst in technology advancement. It plans to establish other educational institutions including schools, colleges and computer learning centers to foster an environment of academic growth, entrepreneurship and professional development. This foundation has been created with a vision to expand and diversify the country's knowledge base and to promote cutting-edge research in various sectors for the nation's economic uplift.

DHA Suffa University (DSU) imparts quality education in one of the upscale housing societies of Pakistan's largest cosmopolitan city, Karachi. The purpose-built campus of DHA Suffa University is located on Khayaban-e-Tufail, a two-minute drive from main Khayaban-e-Ittehad. The campus, sprawling over 4 acres of land, with its imposing building and lush green lawns, serves as a landmark in the area. Nestled in the secure and serene environment of DHA Karachi, with major commercial banks, parks, medical centers, restaurants, sports arenas and mosques in close vicinity, the University is conveniently accessible by public transport.





# WELCOME NOTE FROM THE VICE CHANCELLOR



I am pleased to introduce to you DHA Suffa University (DSU), which has become the first choice of graduate and undergraduate studies for many students and their parents. Its high caliber faculty, state of the art IT infrastructure, modern labs and innovative pedagogical techniques are at par with those of the top ranking world class universities. The calm, secure and absolutely peaceful environment make the DSU Campus highly conducive to teaching, learning and research. These attributes have earned our University recognition and a significantly high ranking by the national and provincial regulatory bodies.

Besides teaching the curricula comprehensively, the University lays great emphasis on co-curricular and extra-curricular activities. It endeavors to groom its students in multiple dimensions. The University takes all essential measures for transforming its students into outstanding professionals, future innovators and researchers. In order to achieve this lofty goal, the University is collaborating with a large number of renowned institutions and industries, both locally as well as abroad.

Although we know that we will have the pleasure of your company for only a few years, we are convinced that with our teaching philosophy, research facilities and caring attitude, you will find studying at DSU a reward for life.

## **Rear Admiral Engr. Prof. Dr. Sarfraz Hussain TI(M), SI(M), (Retd)** **Vice Chancellor**

*PhD (Electrical Engineering), University of Bradford, UK  
MS (Electrical Engineering), US Navy Postgraduate School, Monterey, CA, USA  
BE (Electrical), NED University of Engineering & Technology, Karachi  
Member Institute of Electrical and Electronics Engineers (USA)*







## RECOGNITION AND APPROVALS BY THE REGULATORY BODIES

DSU is recognized by the Higher Education Commission of Pakistan (HEC) as a private sector degree awarding university in the province of Sindh. The BE (Mechanical) and BE (Electrical) programs of DSU have been approved by the Pakistan Engineering Council (PEC). The BS (Computer Science) program conforms to the standards of National Computing Education Accreditation Council (NCEAC), whereas the BBA and MBA programs conform to the standards of National Business Education Accreditation Council (NBEAC). The University was inspected and evaluated by the Sindh Government's Charter Inspection and Evaluation Committee (CIEC) to its full satisfaction in December 2012 and 2014.

## DHA SUFFA UNIVERSITY AT A GLANCE

DHA Suffa University aspires to be ranked amongst the nation's top educational institutions. The University opened its doors in Fall 2012 to the youth of the country, with a vision to produce world class engineers, computer scientists, entrepreneurs and business leaders. DSU offers undergraduate, graduate and doctoral programs in engineering, computer science and management sciences. Over the past three years, DSU has undergone overwhelming changes to build effective systems. From infrastructure development to technology upgrades, curriculum revamp to formulation of pedagogy, addition of foreign qualified faculty to introduction of new programs, DSU is systematically taking giant leaps towards achieving its vision of being a premier educational institution.

## HISTORY

DHA Suffa University was granted a Charter by the Sindh Government in the year 2002. The Charter is not discipline specific. It gives freedom to launch programs in any discipline. The University derives its name from the rectangular platform in "Masjid-e-Nabwi", where companions of the Prophet (PBUH) used to spend most of their time, day and night in the quest of knowledge. The University intends to generate the same zeal and thirst for knowledge among its students and faculty.

The construction of the present campus on 4 acres of land in DHA Phase VII (Ext) started in the year 2004 and was completed in the year 2007. The capacity of this campus is 2000 students. The University is setting up its second campus, spreading over 30 acres of land in DHA City, Karachi.

The Master Plan of the new campus has been developed by M/S Osmani & Company (Pvt). Ltd, one of the leading town planners and real estate developers in the country. The new campus will be fully residential for the faculty, staff and students. It will have the capacity to accommodate 5000 students.





# SUCCESS STARTS AT DHA SUFFA UNIVERSITY

## STUDENT SOCIETIES

The Student Societies Coordination Committee at DHA Suffa University aligns student activities with the University's core values of faith, character, learning, discovery and diversity. Student Societies contribute to the social integration of students and provide them with avenues and opportunities to learn and acquire important skills and experiences that are essential for success in their careers.

Our student societies focus on developing both co-curricular and extra-curricular skills. Student societies at DSU are divided into two clusters that are as follows:

- **Professional/Technical Societies and Clubs** including ACM Society, ASME Section, Entrepreneur Society, IEEE Student Branch, IMechE Chapter, Management Society (Finance Club, HRM Club, Marketing Club and MIS club), Mathematics Society and Leadership Society.
- **Social/Cultural Societies and Clubs** including Debating and Public Speaking Society, Character Building Society, Literary Society, Sports Society, Women Empowerment Society, Entertainment and Excursion Society (Adventure Club, Drama and Music Club, Photography and Painting Club), Community Service and Conservation Society.

Student Societies at DSU have not only conducted various intra and inter-university events but have also proudly secured positions at national and international competitions.

## THE DSU PHILOSOPHY

The educational philosophy of DSU is three tiered: inculcating relevant knowledge in students, helping them with their personal development and giving them a real professional life experience. This philosophy makes the DSU experience "a reward for life". DSU's online admissions system, modern curricula, unique teaching methodologies, continuous evaluation, online examination system and an environment that is conducive to learning make it a progressive and sought after institution.

DSU believes that no student should be deprived of education on the basis of his/her financial status. It, therefore, practices a need-blind policy for admissions, which means the sole admission criterion for all students is merit.

## STUDY WITH OUR ACCOMPLISHED FACULTY

DSU boasts of a highly accomplished full-time faculty which is actively engaged in teaching as well as research. Our faculty members have a vast experience of working for some of the most prestigious institutions that are locally and globally recognized in academia, research and industry. Their interests include writing research papers, developing case studies and providing consultancy services to public and private sector organizations. They believe in creation of knowledge through research and innovation.

## VIBRANT STUDENT COMMUNITY

DSU's students hail from widely diverse backgrounds and they pursue a variety of interests and passions during their stay at the University. Our students take keen interest in various activities ranging from Model United Nations, Sports, Naat Competitions, Math Olympiads and Programming Competitions, both at home and overseas.







DHA Suffa University's New Campus Under Construction at DHA City, Karachi

## VISION

To become a globally recognized institution of higher education and research, which would extend the frontiers of knowledge and contribute significantly in nation building.

## MISSION

To achieve high standards in teaching, learning and research for becoming a world renowned academic institution.

## EQUAL OPPORTUNITY POLICY

DHA Suffa University is an equal opportunity institution with no discrimination on the basis of status, gender, language, religion, region, color, caste or creed. Merit is the sole criteria for admission, employment, academic and career progression. DSU encourages and facilitates students from rural areas, financially constrained families and foreign countries to study on open merit.

## CORE VALUES



## FAITH

Faith, in general, means confidence or trust in a person or entity. However, for DHA Suffa University, faith specifically means confidence or trust in Almighty Allah, the creator of the universe. Faith in the creator is the foundation of all good human values. It establishes the vital link between the creator and the creation. All faiths promote peace and love. DHA Suffa University also upholds the view that faith and reason are not mutually exclusive. True faith must exhibit itself through action. However, we must not comment on another person's faith under any situation.

## LEARNING

DSU is a university where learning and acquiring knowledge is the core business. During the process of learning, human faculties of curiosity, understanding and communication are fully activated. At DSU, we uphold the view that learning is a layered and ongoing process.

## DISCOVERY

The spirit of curiosity forces the human mind to find reasons for why and how things happen in the natural world. This leads to an effort to discover or research for finding answers to questions that arise from observation of the natural world. Discovery or research is only possible after some learning has taken place. Discovery may need quantitative and qualitative analytical skills which are developed in students as part of the learning process at DSU.

## CHARACTER

Character means knowing the difference between right and wrong and having the courage to do the right thing. The University lays great emphasis on character building. DSU firmly believes that character is the accumulation of thoughts, values, words and actions. It is established by long-term conscientious adherence to moral values. Efforts by parents, teachers and others to instill these values are important, but ultimately, Character is both formed and revealed by how one deals with everyday situations as well as extraordinary pressures and temptations.

## DIVERSITY

DHA Suffa University promotes diversity and opens its doors to all persons regardless of their gender, religion, social status, color, caste and creed. DSU is committed to recognizing and appreciating the variety of characteristics that make individuals unique. It promotes and celebrates individual and collective achievements.



# STATUTORY BODIES

## BOARD OF GOVERNORS

The general supervision and control of the affairs of the University rests with the Board of Governors, the composition of which is as follows:

- Commander 5 Corps / PEB DHA who is Chancellor of the University and Chairman of the Board
- A Judge of the Sindh High Court, nominated by the Chief Justice
- The Secretary Education, Government of Sindh
- The Chairman, Higher Education Commission
- The Administrator, Defence Housing Authority, Karachi
- The Vice Chancellor, DSU
- One Vice Chancellor of a university nominated by the Chancellor
- Three nominees of the Defence Housing Authority, Karachi
- Two eminent educationists approved by the Chairman
- President of the Karachi Chamber of Commerce and Industry
- The Registrar who acts as the Secretary of the Board

## ACADEMIC COUNCIL

The Academic Council is the highest academic body of the University, which oversees proper standards of instruction, research, publications and examinations. It regulates the academic activities of the University and comprises of the following members:

- The Vice Chancellor who is the Chairperson of the Council
- All the Deans
- All the Heads of the Academic Departments
- All Professors and Associate Professors of the University
- One nominee of the Department of Education, Sindh
- One nominee of the Defence Housing Authority, Karachi
- Director Education of the Defence Housing Authority, Karachi
- Two eminent persons, one each from arts and sciences
- The Advisor (Academics) of the Higher Education Commission of Pakistan
- One nominee of Pakistan Engineering Council (PEC)
- The Director QEC
- The Registrar acts as the Secretary of the Council



# DEPARTMENT OF MECHANICAL ENGINEERING

## MISSION

To provide students with engineering knowledge and skills by offering undergraduate and graduate degree programs of high international standard in a conducive environment that promotes active learning and research.

## Faculty

The faculty of mechanical engineering boasts of an accomplished and highly qualified pool of scholars, researchers and practical engineers. The faculty brings together a world of experience from Europe, North America, Middle and South East Asia enabling the latest knowledge and expertise to be available to students of the Mechanical Engineering Department at DHA Suffa University. Moreover, active partnerships and collaborations of our faculty members with leading research and development institutions ensures that our students are engaged in projects that stand parallel to the cutting-edge research around the world.

## ADVANCED LABORATORIES

The Mechanical Engineering Laboratories supplement the broad spectrum of theoretical Mechanical Engineering courses through practical and hands-on experience. The department has one of the best engineering laboratories in Pakistan and is continuously investing to upgrade and enhance its capabilities with the addition of state-of-the-art equipment and highly skilled laboratory staff. Students are strongly encouraged to conduct laboratory experiments and each student is mandated to work independently to understand difficult concepts more aptly through applications.

An additional feature of the Mechanical Engineering Laboratories is the use of software with high performance computers to design and corroborate advanced concepts of engineering in Fluid Dynamics, Heat Transfer, Structural Analysis, Materials Engineering, Manufacturing Technologies, CNC Processes, Optimization of Processes, Control Systems, Vibrations and Robotics.

The Mechanical Engineering Department is equipped with the following laboratories and workshop facilities:

### MECHANICAL ENGINEERING LABS

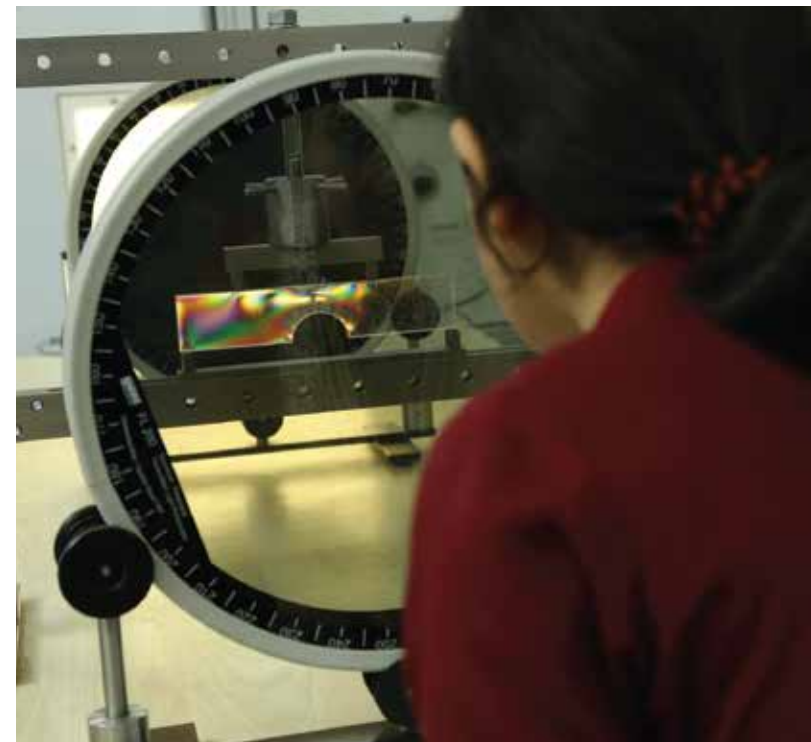
Computer Aided Engineering Center  
Computer Integrated Manufacturing Center  
Dynamics and Vibrations Lab  
Engineering Drawing Hall  
Engineering Workshop-I (Machine Shop)  
Engineering Workshop-II (Bench-Fitting Shop)  
Engineering Workshop-III (Welding Shop)  
Fluid Mechanics Lab  
Heat Transfer Lab  
Internal Combustion Engines Lab  
Machines Lab  
Materials Lab  
Manufacturing Lab  
Mechanics Lab  
Process Control Lab  
Refrigeration and Air Conditioning Lab  
Thermodynamics Lab

### ALLIED LABS

Applied Chemistry Lab  
Applied Physics Lab  
Computing Lab  
Programming Lab

## ACCREDITATIONS

The Mechanical Engineering programs at DHA Suffa University are approved by the Higher Education Commission (HEC) and the BE (Mechanical) program is fully-accredited by the Pakistan Engineering Council (PEC). The Department has successfully implemented Outcome Based Education (OBE) system across all semesters.



## DSU's FACILITIES OFFER LONG TERM BENEFITS

### PLACEMENTS AND INDUSTRIAL LIAISON

DHA Suffa University takes pride in providing the best and most ideal placement and internship opportunities to its students through a dedicated network of departmental Industrial Liaison Officers (ILOs) working closely in cooperation with Career Services and Corporate Relations (CS&CR) Directorate at DSU. The CS&CR Directorate works with dedication and utmost professionalism to ensure the students are placed in prestigious companies of the country. Industrial visits are arranged every semester starting from the third year of BE (Mechanical) program with the objective to acquaint students with industrial practices. The visits provide support to the curriculum requirements of the BE (Mechanical) degree program.

### PROFESSIONAL GROWTH

DHA Suffa University places strong emphasis on the professional growth of its students through a variety of curricular and co-curricular activities under the banner of student chapters of professional organizations. These include.

1. American Society of Mechanical Engineers (ASME)
2. Institution of Mechanical Engineers (IMechE)
3. Society of Automotive Engineers (SAE)

In addition to these, DHA Suffa University has university-wide student societies that encourage students to participate proactively to develop and nurture soft-skills necessary for the modern-day work environments.

### INTERNATIONAL COMPETITIONS

Despite being in infancy stages, the ME Department, in strong congruence to the University's vision, has established professional centers for participation in international automotive and aerospace student-level competitions, namely:

1. Formula Student (Global)
2. Shell Eco-marathon Asia
3. Design, Build and Fly Competition, USA
4. IMechE UAS Challenge, UK



# DEPARTMENT OF ELECTRICAL ENGINEERING

## MISSION

The Department of Electrical Engineering (EE) at DSU has a mission to produce graduates who are mindful of societal issues and can assume diversified engineering roles in national and global organizations. We want our graduating students to become highly sought after by industries and business organizations and to undertake postgraduate research work that can contribute significantly to nation building.

At DSU's Electrical Engineering department, we believe in the holistic development of a student as an engineer. For this we have transformed our entire academic portfolio to an Outcome Based Education System (OBE) system. We focus on the overall development of students as Engineering Professionals and encourage them to participate in co-curricular and extra-curricular academic activities. Our students are rigorously groomed to deliver innovative and creative engineering solutions to the current societal problems. The Following are Program Educational Outcomes (PEOs) that we expect to see in our graduates after they have stepped into professional life:

1. Apply electrical engineering knowledge for analyzing complex industrial problems and propose technical solutions for the betterment of society.
2. Have the ability to perform in a multidisciplinary and challenging work environment, exhibiting effective communication skills, both individually and as a team member.
3. Be able to pursue research nationally as well as globally to enhance professional qualification and knowledge.

## FACULTY

DSU's Electrical Engineering Department boasts of highly qualified faculty members who are actively engaged in academic and research activities. The majority of EE faculty members at DSU have earned degrees from reputable foreign universities and have vast industrial work experience as well as research expertise in their respective professional fields. They have previously worked at the most prestigious national as well as international institutions and are up to date with latest concepts and trends in the field of Electrical Engineering. Their worthy research and teaching experience helps our students to excel in academics, acquire practical knowledge and hone their research capabilities.

## STATE-OF-THE-ART LABORATORIES

The Electrical Engineering Laboratories give students hands-on experience of Embedded Systems, Data Acquisition, Feedback Control, Communication Systems and Electrical Power Systems. The labs are equipped with advanced test and measurement equipment as well as computing platforms on which students are made to appreciate the real essence of Electrical Engineering design.

Our laboratories include:

- Computing Lab
- Programming Lab
- Circuits and Electronics Lab
- Digital Systems Lab
- Electrical Machines Lab
- Power Electronics Lab
- Telecom & Signal Processing Lab
- Electrical Power System Labs
- Process Control Lab
- Project Lab
- Electrical Workshop



## ACQUIRE APPROPRIATE SKILLS FOR SERVING THE INDUSTRY

## ACCREDITATION

Our BE (Electrical) program is recognized by HEC and approved by PEC. The University and the Department believe in working together with HEC and PEC at all levels to improve the quality of education in the country.

## CAREERS OUR GRADUATES CAN SEEK

DSU's alumni are employed in various renowned national and international organizations. The Electrical Engineering program offers its students three specialization streams: Electrical Power Systems, Telecommunications and Electronics. We enable our graduates to choose from a variety of fields in their professional careers. Graduates can become members of design or support engineering teams at industrial and business organizations, locally as well as globally. The opportunities to excel in higher education, research and consultancy can also be pursued.

## INDUSTRIAL LIAISON

Our department is rigorously taking steps to establish linkages with the industry. We believe that our students should fulfill the needs of employers, industries and the society at large. Recently, students have completed internships at major engineering industries in Karachi, including PIA and K-Electric. Field trips, participation in competitions organized by the industry and guest speaker sessions by experts from various companies are some of the ways through which we are extending and strengthening our collaboration with potential employers.



# DEPARTMENT OF COMPUTER SCIENCE

## VISION

The Computer Science Department aims to produce outstanding computer specialists to meet the requirements of the job market and add value to the field of Information Technology.

## INTRODUCTION

The Department of Computer Science offers programs that produce well-versed computer specialists to meet expectations of the market. Our curriculum is on par with the best in the world. It gives our students opportunities to adapt themselves to emerging technologies and innovative ideas. The department is keen to prepare its students to meet the needs of global as well as Pakistani companies; therefore, our pedagogy includes extensive laboratory work, independent projects, field work, task-based teaching and extensive research projects.

## FACULTY

The Department has outstanding faculty with immense experience of teaching and research in leading universities. A majority of them exhibit industrial experience. The faculty is keenly engaged in developing solutions for the contemporary problems using high-tech concepts. Such projects have great potential for local as well as overseas funding and grants. Our faculty provides guidance to conduct research in many areas including Artificial Intelligence, Bio-Informatics, Computational Genetics, Computational Linguistics, Networking, Wireless Networking, Databases, Distributed and Parallel Computing, Information Security, Multimedia and Game Development, Computer Graphics and Visualization, and Software Engineering.

## LABORATORIES

The laboratories in the Department of Computer Science at DSU provide students with hands-on experience in analysis, design, coding and testing activities for computational problems. Computing tools and devices are powered by a state-of-the-art data center to assist the development and analysis of computing intensive applications. The laboratories provide opportunities for students to explore and learn core computing practices and prepare them to tackle real-world problems. The Department has established the following labs to cater to the needs of students and researchers:

- Advanced Computing Lab
- Systems Lab
- DSU Media Lab
- CUDA Research Lab



## COMPUTER GRAPHICS AND VISUALIZATION

The Computer Graphics and Visualization (CGV) research group is the first and only research group in Pakistan that is working in the area of Advanced Computer Graphics and Visualization. CGV was established in the year 2013 by Dr. Muhammad Mobeen Movania. Ever since its inception, the CGV research group has published several research articles at international venues and impact factor journals. It has developed close collaborations with research groups at several international universities, including University of Glasgow in UK, King Abdul Aziz University in Jeddah, Saudia Arabia, Dalian Maritime University in Dalian, PR China, and Nanyang Technological University, Singapore. The research center has won hardware grant from NVIDIA® through the NVIDIA CUDA® Teaching Center award twice. Students get the chance to work under the guidance of researchers in their final year projects. Specialized MS and PhD courses are also offered to ensure that students are able to improve their understanding of Computer Graphics fundamentals as well as advanced concepts.

## SUFFA INNOVATION LABS (SI LABS)

Founded in 2013, Suffa Innovation Labs is the in-house technology incubator where students develop innovative, intelligent, and interactive products. Students are provided a collaborative environment where they acquire hands-on experience on state-of-the-art software development tools and techniques. SI Labs offers two types of programs: Internship Program and Mentorship Program. The Internship Program is offered during Summer Semester breaks where students are selected after a rigorous screening test and interview. During the internship, students experience a working environment of a typical software development company and work on designing efficient solutions of various real-world problems. Our Mentorship Program spans over 6 months to 1 year. In this program, students work on start-up ideas under the mentorship of seasoned faculty. These start-up projects are evaluated by a panel of industry mentors and experienced technology entrepreneurs, who give valuable insights so these start-up ideas may be launched as viable products.

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## SOFTWARE ENGINEERING RESEARCH GROUP (SERG)

Software Engineering Research Group (SERG) aims to work in the area of Software Engineering, and is going to start in 2018 under the supervision of Dr. Syeda Umema Hani. This group aims to provide research solutions to the problems faced by Pakistan's software development industry and help them to adopt cost-effective tools and techniques by providing training and consultancy services. This research group will work in close collaboration with bodies like Namcook Analytics Inc. USA, Function Point Modeler Inc. USA, Center for Systems and Software Engineering, University of Southern California, Pakistan Institute of Information & Security, etc. The tools and techniques will relate to different Software Process Improvement Standards like ISO, CISA-COBIT and CMMI, and the efficient implementation of all areas that lie under the SPI, such as Metrics and Measurement, Cost Estimation, Risk Management, Adaptation of Agile and Classical Process Models, Requirement Engineering, Project Management, Change Management, Verification & Validation areas and Secure Software Solution.

This group also intends to provide consultancy for legal matters related to Software Development for local as well as cross-border contractual issues. The research will be conducted with close industry contacts using empirical research methods, including surveys, experiments and case studies. The experimentation to be made under this group will guide the industry and researchers in evaluation and selection of different techniques. This research group will work in coordination with other research areas like Data Science, Machine Learning, Deep Learning, Big Data, etc. Members of this group teaching undergraduate and graduate courses in Software Engineering shall help inculcate research knowledge in students. Furthermore, the group will share its research findings through authentic books, editorials, conferences, and journal publications.



## WIRELESS SENSOR NETWORKS (WSN) & INTERNET OF THINGS (IoT) RESEARCH GROUP

This group will focus on research of the latest trends in Wireless Sensor Networks (WSN) and Internet of Things (IoT). The researchers and students in this group, will be working to deal with various challenges faced by low power devices in IoT and one of the major aims would be to improve the network lifetime and energy efficiency. Innovative schemes and protocols will be developed for the MAC & Network layer. The group will be performing simulations using tools such as OPNET and Avrora and testbed implementations using Sky notes. An upcoming project is to deploy WSN at a remote location of Pakistan (Cave City, Balochistan) and collect data for habitat monitoring. Collaborations will be developed with local and international research institutes and funding agencies. Students will work in this lab for their course or FYP projects, under the guidance of a research team. The lab will also offer positions for MS and PhD students to conduct research in different areas of IoT.

## INDUSTRIAL LINKAGE

The Department of Computer Science has established contacts with various software houses, IT companies and professional bodies for keeping the curriculum up-to-date and in coherence with the demand of the industry. For this purpose, the Department focuses on different training programs for students and the faculty. Furthermore, seminar sessions by senior IT entrepreneurs and professionals are held to apprise students with the latest trends in the industry. The Department is actively working with various software houses and IT companies for collaboration models that will promote exchange of knowledge and skills and will improve the research acumen of both the industry and the academia.

## CAREER PROSPECTS

The Department of Computer Science has established contacts for career advancement of its students with various software houses and IT companies. Some of the careers that students can select include IT Entrepreneur, Information Technology Manager, Information Technology Consultant, Software Architect, System Analyst, Software Engineer, Web Application Developer, Database Administrator, Network Administrator and Software Quality Assurance Analyst. Research and development can also be one of the lucrative fields for them. They can also obtain MS/PhD degrees to pursue a career in higher education. Entrepreneurship is another suitable choice that students can pursue after successfully earning the degree.



# DEPARTMENT OF MANAGEMENT SCIENCES

## *Progression through Education*

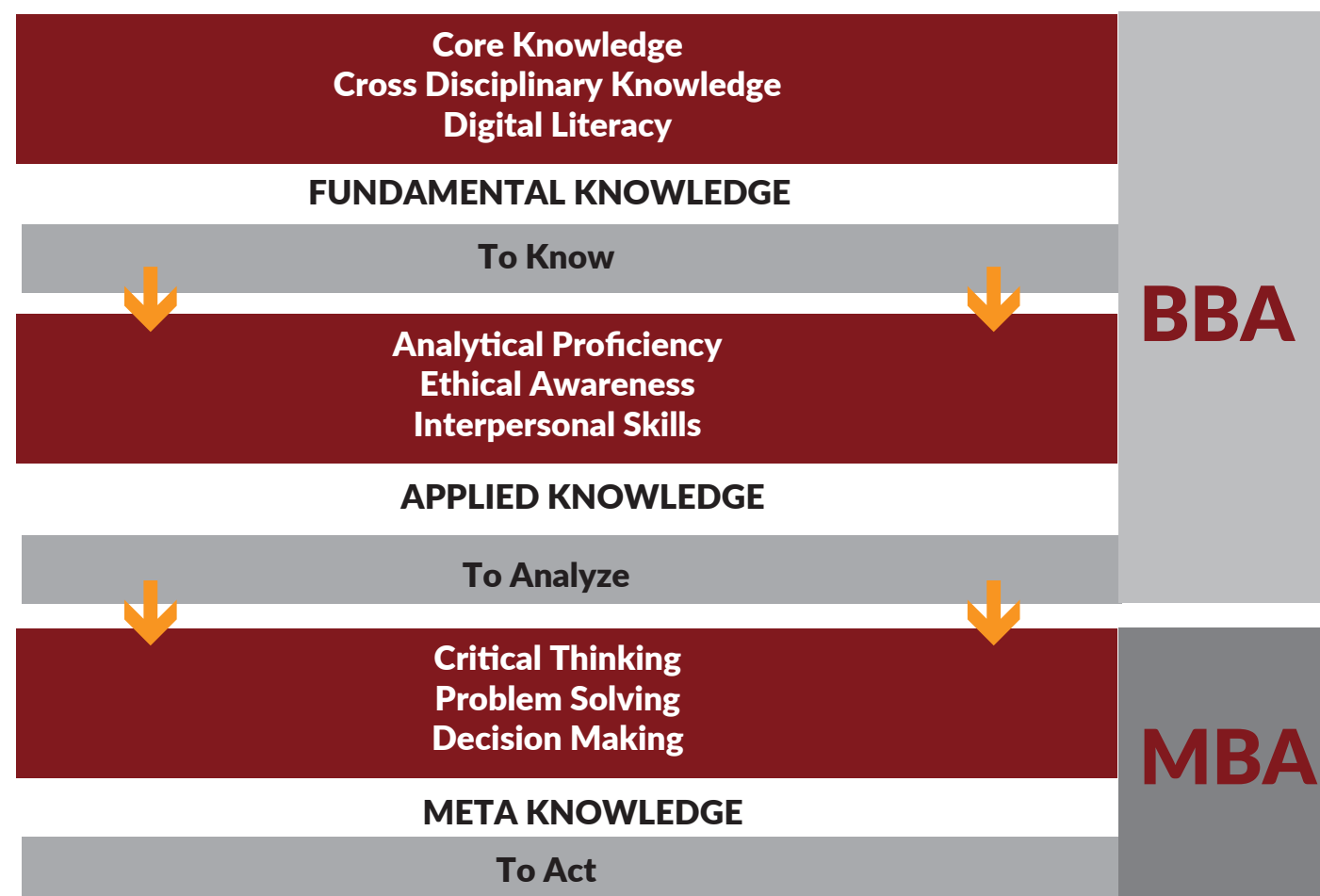
### VISION

We aspire to become a globally acknowledged business institution with a transformative influence on society through creation of knowledge and mentoring of future nation builders.

### MISSION

- To produce technically equipped and socially responsible professionals who contribute in shaping the way organizations are operated, managed and led
- To contribute in expanding the horizons of knowledge by encouraging, initiating and supporting production and dissemination of par excellence research
- To positively influence society through contributing engagements with industry, businesses and government beyond the boundaries of campus
- To do the above with integrity, transparency and accountability in order to become a role model to be followed.

### ACADEMIC ROADMAP



### FACULTY

The Department of Management Sciences has a highly qualified faculty possessing vast experience of teaching and research in leading universities. Most of them also have a rich experience of working for the industry. The faculty is actively engaged in developing solutions for present day business problems using futuristic concepts. Such projects have great potential for local and overseas funding and grants. The faculty has command over their respective subjects and bring to the classroom extensive academic knowledge supplemented by research, consultancy and industry experience.

### INDUSTRY AND ACADEMIC LINKAGES THROUGH CORPORATE MENTOR NETWORK

The Department of Management Science's Corporate Mentoring Network is a career mentoring platform that connects students with qualified professionals from the industry, providing them first-hand industry insights into their chosen professions. Mentors use their valuable knowledge and experiences to guide and assist students as they make choices and decisions about their future careers.

This program aims to support potential graduates with their transition out of the University and into the workplace and intends to include industry professionals in a mutually advantageous partnership. Industrial experts with considerable experience can act as mentors to provide students with information about specific industries, current and upcoming industrial trends and the skill-set required to compete, as well as advise them regarding their career directions, job hunt and skill improvement.



## FOREIGN LINKAGES

The International Education Resource Center (IERC) has been set up with the goal of promoting higher education opportunities in Germany, Turkey, Malaysia and China . It strives to provide an interface for DHA Suffa University's students to access the study abroad programs of leading international universities. At present, DHA Suffa University has MoUs with Eurasia Institute for International Education (EIE-Berlin), Technical University of Applied Sciences (TUAS) Wildau, Germany, Senior Experten Service (SES, Bonn, Germany), AIMST University, Malaysia, Bilkent University, Turkey, Fateh Sultan Mehmet Vakif University, Turkey and Chengdu University, China. Additionally, through different initiatives such as Senior Experten Service (SES), each year, a number of foreign faculty members from top business schools are invited to teach at DHA Suffa University.

## INTERNSHIP PROGRAM

**As a mandatory part of the degree program, students of the BBA and MBA Program are required to complete an internship of 4-6 weeks.** DHA Suffa University has a dedicated Career Services & Corporate Relations department established to facilitate students in securing internships by establishing linkages with the corporate world. The internships not only help students get a foot in the door with a potential employer but also help them accumulate new skills.

## EMPLOYABILITY OF MANAGEMENT SCIENCES STUDENTS

The Department of Management Sciences caters to the job market by providing individuals who positively influence society through contributing engagements with industries, businesses and government beyond the boundaries of campus. Our graduates are placed in some of the blue-chip companies and other leading local and multinational companies such as Nestle, PSO, OGDCL, Bank AL-Habib, National Bank, Habib Bank, etc.

## COMMUNITY SERVICE

The scope of Corporate Social Responsibility (CSR) at DHA Suffa University includes community involvement and philanthropy for the development of communities, initiatives involving health and safety, efforts towards environmental protection and sustainability as well as a variety of other initiatives aimed at facilitating students that belong to disadvantaged segments of society. The CSR Department strives to engage DHA Suffa University students in volunteering activities via the Community Service and Sustainability Program (CSSP) and aims to make DHA Suffa University an institution that not only focuses on academic excellence but also on character building. The CSSP is an action program that plays an important role in invoking a sense of civic responsibility in our students.

To ensure that DHA Suffa University's vision of nation building is materialized, the University has made community service a mandatory requirement for undergraduate students of the Management Sciences Department. **Students enrolled in the BBA program are required to complete 60 hours of community service in order to graduate.** This requirement will enable the students to become well-rounded, compassionate and empathetic individuals who are able to gain a competitive edge in the job market by having a unique selling point. Furthermore, the CSR department aims to create awareness related to various aspects of CSR by arranging a variety of free sessions for faculty, staff and students and by working on the development of policies and procedures to facilitate CSR activities at DHA Suffa University. In addition, the students of the Community Service and Conservation Society (CSCS) at DHA Suffa University work in collaboration with the CSR department to ensure that DHA Suffa University students are actively involved in organizing and participating in CSR activities and events.

## MANAGEMENT SCIENCES SOCIETY

The Management Sciences Society caters to a diverse range of interests in various subject areas of business. Each student can find an area of his or her interest from a number of clubs namely Marketing Club, HR Club, Finance Club, Supply Chain Club and Economics Club, which exist under the patronage of the Management Sciences Society. The society is a well-organized body run by the students and aims to provide practical knowledge related to theory courses through competitions and events that not only give the students insights of the latest innovations in the above areas but also foster a sense of achievement and confidence in them. These events greatly help the students in their professional development. The Department of Management Sciences is keen to develop linkage with the industry; therefore, the MS Society also promotes the integration of industry through events where prominent industry figures come as judges, guest speakers and trainers to share their rich experiences.

## CAPSTONE PROJECTS

Students from the Undergraduate and Postgraduate degree programs are offered capstone projects in their final semester. These projects allow students to work on real world business issues. Under this program, students are required to work as consultants to a client company under the guidance of a faculty supervisor and a corporate mentor. The students conduct rigorous field research, secondary research and do data collection and analysis, followed by findings, conclusion and recommendations that are presented to the sponsoring company. The entire project is 6 credit hours and students are expected to complete it in one semester. These capstone projects provide a practical experience to Management Sciences students and provide them with opportunities to bring creative solutions to the problems at hand.

## CENTER FOR CASE DEVELOPMENT (CCD)

The Case Method of teaching has gained popularity as an effective classroom technique in recent years. The aim of CCD is to encourage case study pedagogy and develop real cases to bring actual business issues and problems to the classrooms. Under the umbrella of CCD, faculty along with a team of students work on developing indigenous case studies. In addition to this, the center has acquired membership of renowned international case repositories.



# DEPARTMENT OF BASIC SCIENCES

## VISION

The Department of BS aspires to achieve excellence in emanating quality education in the field of Science. The Department provides young engineers, scientists and entrepreneurs a strong foundation that is required to excel in their fields.

## FACULTY

The faculty of Basic Sciences is a highly dynamic and growing community of scholars, active in various principal areas of research in Mathematics and Natural Sciences. Many have gained national and international prominence and strive to foster a teaching methodology that enables the development of effective theoretical foundation, nurturing a pragmatic approach in students to sharpen their skills. The Department of Basic Sciences provides instructional support in teaching various fundamental courses of Applied and Natural Sciences. The practical implementation of theoretical knowledge is achieved through well-designed and well-equipped Applied Chemistry and Applied Physics laboratories.

## APPLIED PHYSICS LAB

The department has a well-equipped Applied Physics Lab with qualified technical staff. The basic facilities of this lab allow the students to acquire hands-on experience and practical realization of theoretical knowledge with the help of tools and equipment imported from renowned foreign companies. Experimental equipment for Electromagnetics, Acoustics, Mechanics and Optics are available in the Applied Physics Lab.

## APPLIED CHEMISTRY LAB

In the Applied Chemistry Lab, students have the opportunity to perform experiments to observe and grasp scientific phenomena related to Applied Chemistry using basic and advanced laboratory equipment. At the same time, the department has a vision to further upgrade the Applied Chemistry Lab to the level of postgraduate research and to provide laboratory testing and research services to industries and academic sectors in the near future. To reinforce this vision, the department is working towards implementation of advanced quality management and laboratory management systems. To ensure the health and safety of students and staff, adequate measures have been taken in the Applied Chemistry Lab.



# DEPARTMENT OF HUMANITIES

## VISION

The Department of Humanities at DHA Suffa University believes in developing critical thinking, communication skills and verbal reasoning to make the students effective communicators. The Department strives to make the students dynamic individuals who can play a vital role in the society.

## FACULTY

The faculty of Department of Humanities is a perfect combination of experienced and qualified teachers, who have the experience of teaching at renowned national and international institutions. The Department boasts of faculty members who are active researchers in their areas of interest. The faculty of Humanities contributes to teaching the compulsory and fundamental courses of Engineering, Computer Science and Management Sciences degree programs, which include courses on English Composition, Islamic Studies, Professional Ethics, Pakistan Studies, Functional English, Communication Skills and Technical Report Writing.

## WRITING CENTER

The Humanities Department has established a Writing Center with the mission to enable undergraduate and graduate students to become effective communicators by giving them the tools to do so along with a welcoming and supportive environment to practice in. The Writing Center seeks to impart knowledge about effective communication to those studying as well as working at DSU. The Writing Center supports students and guides them in their written assignments, supplementing classroom teaching. The Center also supports faculty through consultation and collaboration for their instructional classroom needs.

Besides being open for student appointments, the Writing Center regularly holds workshops on writing, oral communication and other related topics throughout the semester. Handouts and other useful resources are also available at the Writing Center.

The Writing Center is run by its Director and writing consultants. The Writing Center hires and trains DSU students as writing consultants, since they can empathize with their fellow students and relate to them in a better way. The Director oversees day to day operations of the Writing Center, trains the writing consultants, and is available for special consultations.

The Writing Center looks forward to serving the DSU community and contributing to their literary advancement.





# INTERNATIONAL EDUCATION RESOURCE CENTER

The International Education Resource Center (IERC) has been set up with the goal of promoting foreign student mobility and continually improving DHA Suffa University's international outlook. It strives to provide an interface for DSU's students to access the study abroad programs of leading international universities and educational institutions. At present, DSU has MoUs with Eurasia Institute for International Education (EIIE-Berlin), Technical University of Applied Sciences (TUAS) Wildau, Germany, Cologne Business School, Germany, AIMST University, Malaysia, Bilkent University, Turkey, Fateh Sultan Mehmet Vakif University, Turkey, Chengdu University, China and the University of Hertfordshire, UK. DHA Suffa University also has an agreement with the Senior Experten Service (SES), Bonn, Germany. The University regularly hosts senior experts who contribute to its academic growth and professional development.

## MISSION

The mission of DSU's IERC is to foster academic growth and professional development through strong linkages with international academia.

## OBJECTIVES

- To raise awareness of the university community about educational, research and career opportunities in Europe, Malaysia, China, Turkey, UK and USA
- To promote and enhance academic cooperation on national and international levels
- To develop and implement joint degree programs
- To promote inter-cultural harmony by equipping faculty members and students with cross-cultural competence needed for working and studying in a multi-cultural environment
- To offer opportunities for learning foreign languages on campus
- To equip students with a skill set that shall enable them to thrive in multi-cultural environments and embark on international career paths after graduation

At the IERC, we believe that only true understanding can bring cultures together and it is international education and exposure that lays a strong foundation for encouraging inter-cultural harmony. DSU's IERC, in collaboration with EIIE-Berlin, organizes summer camps every year in which students visit Europe for two weeks. They explore Europe, Germany in particular, as a destination for higher studies, experiencing the German culture and lifestyle. Activities at the summer camp include German language classes, visits to historic sites in and around Berlin city and visits to German universities as well as German industries. The IERC also organizes summer internships for students at AIMST University, Penang, Malaysia, giving them an opportunity to acquire international exposure. Moreover, DSU's IERC in collaboration with Bilkent University, Turkey, organizes semester exchange programs, whereby, DSU's students visit Ankara and study a semester at Bilkent University.







## PROFESSIONAL DEVELOPMENT CENTER

In a constantly evolving workplace and knowledge economy of today, managers need to broaden their capabilities to secure and retain competitive advantage. DHA Suffa University's Professional Development Center (PDC) offers programs that are designed to enhance your management acumen, provide tools needed to drive innovation and connect you to a network of peers, specialists and mentors. Our Executive Education programs are designed to stay a step ahead of business and innovation trends, offering workshops and short courses in the areas of general management, technology, marketing and leadership, to name a few - leaving you prepared to drive growth. PDC also aims to further strengthen DSU's linkages with both academia and industry, and conducts seminars, speaker sessions and symposiums that help disseminate knowledge and provide a platform for mutual learning and intellectual discourse.



## CORPORATE SOCIAL RESPONSIBILITY

DHA Suffa University established its Corporate Social Responsibility (CSR) Department in the year 2017 in line with the University's vision to contribute significantly to nation building. The scope of CSR activities at DSU include community involvement and philanthropy for the development of communities, initiatives involving health and safety, efforts towards environmental protection and sustainability, as well as a variety of further initiatives aimed at uplifting students that belong to disadvantaged segments of society.

DSU is also a member of the Talloires Network and is proud to be an engaged institution that is actively involved in community service and outreach programs. By being a part of DSU, students can work on various community service projects and contribute positively to society.





# QUALITY ENHANCEMENT CELL

## VISION

The Quality Enhancement Cell (QEC) is committed to ensuring quality as a norm in all the operations of DHA Suffa University.

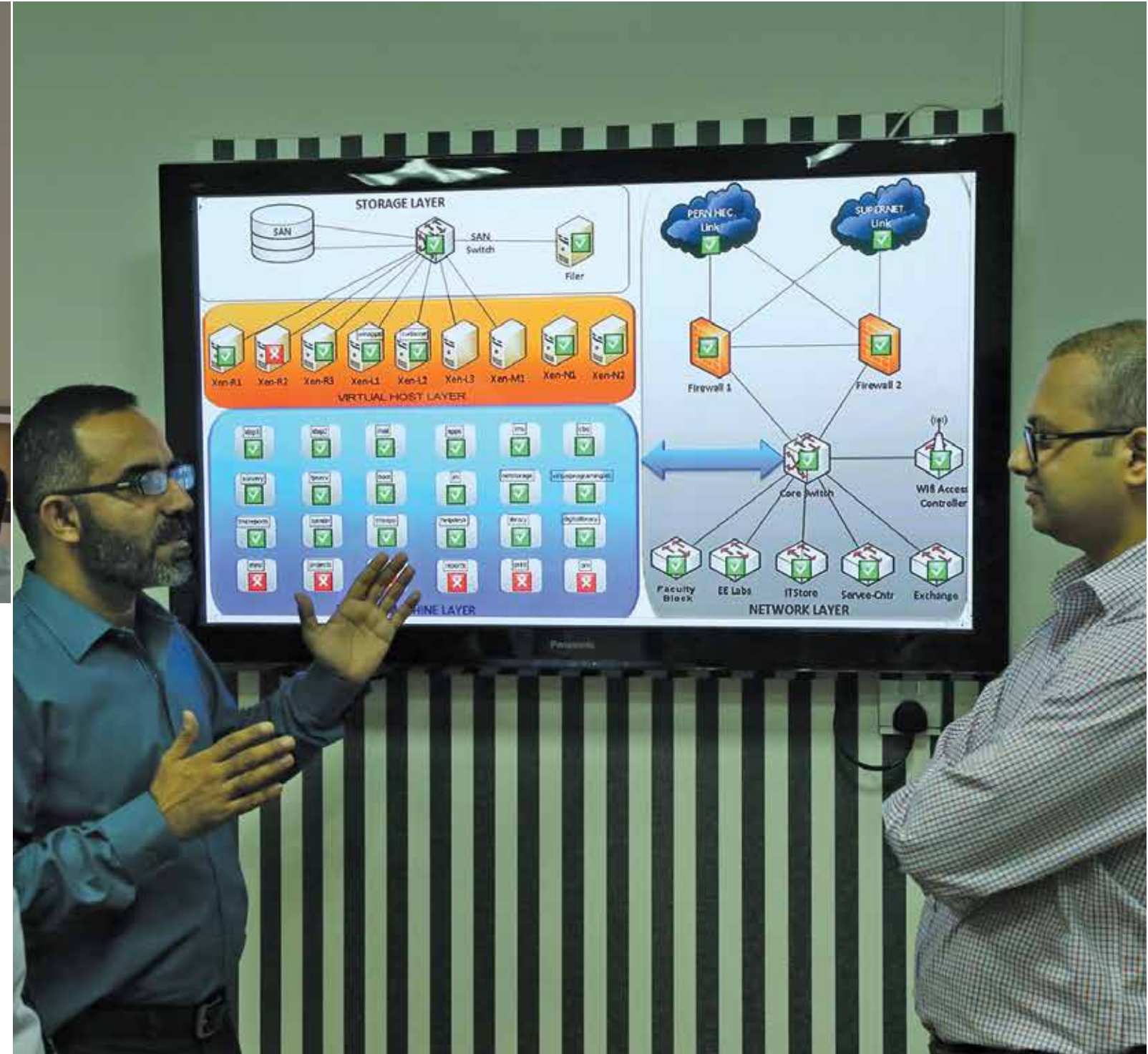
## OBJECTIVES

- Establishing, improving and maintaining academic standards
- Monitoring and enhancing students' learning
- Verifying compatibility of program objectives with institutional goals
- Providing feedback for quality assurance of academic programs and support services

Being an obligation by the Higher Education Commission, the QEC at DHA Suffa University does not just implement or operationalize the HEC quality enhancement rules, it takes confident steps in making DHA Suffa University work towards excellence. Aligned with this vision, the QEC entrenches quality in all academic degree programs, develops quality assurance processes and methods of evaluation and monitors the people who are involved in such activities (faculty, students and staff).

The QEC is responsible to liaise with all the nominated assessment team members of respective degree programs and coordinates with them in order to ensure conformity to the quality standards prescribed by HEC and various prestigious national and international regulatory bodies.

The QEC of DHA Suffa University performs so meticulously that HEC has acknowledged it in the form of a formal letter of appreciation.



# IT SERVICES

DHA Suffa University offers state-of-the-art IT infrastructure for its students and faculty to facilitate and augment the learning activities. The heart of IT services at DSU, is the latest cloud computing technologies based data center with high-end software, computing, storage and network infrastructure. Students and faculty can connect to the DSU portal and access resources pertinent to their needs round the clock. Students can access their course material, submit assignments and interact with their teachers using the DSU Learning Management System. Students can also track their academic progress online and even provide feedback for their courses from anywhere. The computing labs equipped with essential hardware and software resources deliver an exceptional computing experience. Campus-wide IT resources also include latest audio visual facilities in all classrooms, high speed Internet connectivity and across the campus Wi-Fi coverage.



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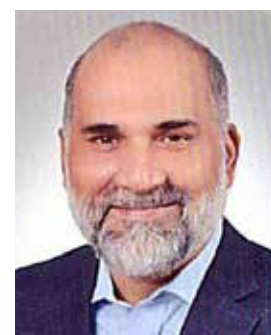
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# Bachelor Degree Programs BE (MECHANICAL)

## Introduction

The Mechanical Engineering Department at DHA Suffa University offers a four-year BE (Mechanical) degree program. The BE (Mechanical) curriculum is designed to prepare mechanical engineering students to comply with the continuously growing and evolving demands of both local and global industries, academia and R&D sector. Under continuous guidance and mentoring of highly qualified and experienced faculty members, the students are provided a congenial learning environment where they can develop theoretical, practical and managerial skills through exhaustive pedagogy, experiential learning as well as personal and professional grooming.

The department maintains a strong focus in ensuring one-to-one mentoring of each student. The department boasts of an impressive student-to-teacher ratio of 20:1. The learning experience of students is further enhanced with state-of-the-art laboratory facilities on which the department has invested more than 220 million rupees. These laboratory facilities are further being enhanced in line with HEC and PEC guidelines.

## Program Mission

To provide an education that builds within students a solid foundation in mechanical engineering knowledge and practice, instills good ethics, develops effective communication skills and keeps pace with current technologies to enable them to play a useful role in society.

## Program Educational Objectives (PEOs)

PEOs describe the expected professional achievements of our students after four years of study, we expect our graduates to:

- Be effective professional engineers grounded in sound engineering practice and knowledge
- Be responsible engineers, who exercise good ethics in their professional pursuits with due consideration to impact on society
- Be able to advance their knowledge and adapt to technological changes in the field of mechanical engineering

## Eligibility

- Matric/O-level/SSC or an equivalent examination with at least 60% marks; and
- Intermediate/HSSC/FSc/A-level (Pre-Engineering) or an equivalent examination with at least 60% marks; and
- At least 50% marks in DSU Entrance Test



## Plan of Study

Semester	Course Title	Course Code	Credit Hours
I	Calculus & Analytical Geometry	BS-1301	3 0
	Applied Physics	BS-1101	3 1
	English Composition	HU-1001	3 0
	Engineering Drawing & Graphics	ME-1101	1 2
	Introduction to Computing & Programming	EE-1011	3 1
	Sub-Totals		13 4
Total			17
II	Linear Algebra & Ordinary Differential Eqns	BS-2303	3 0
	Applied Chemistry	BS-1201	2 1
	Pakistan Studies	HU-1006	2 0
	Engineering Statics	ME-1103	3 0
	Thermodynamics - I	ME-1301	3 0
	Workshop Practice	ME-1001	0 2
	Technical and Business Communication	HU-4008	3 0
	Sub-Totals		16 3
Total			19
III	Islamic Studies	HU-1002	2 0
	Engineering Dynamics	ME-2101	3 1
	Mechanics of Materials - I	ME-2102	3 0
	Fluid Mechanics - I	ME-2301	3 1
	Thermodynamics - II	ME-2302	3 0
	Electrical Engineering	EE-2005	2 1
	Sub-Totals		16 3
Total			19
IV	Mechanics of Materials - II	ME-2103	3 1
	Fluid Mechanics - II	ME-2303	3 1
	Engineering Materials	ME-2201	3 1
	Machine Design & CAD - I	ME-2104	2 1
	Electronics Engineering	EE-2006	2 1
	Sub-Totals		13 5
Total			18
V	Numerical Analysis	BS-3303	3 0
	Management Elective	MS-XXXX	3 0
	Machine Design & CAD - II	ME-3101	3 1
	Mechanics of Machines	ME-3102	3 1
	Manufacturing Processes	ME-3401	3 1
	Sub-Totals		15 3
Total			18
VI	Complex Variables & Transforms	BS-3301	3 0
	Social Sciences Elective	HU-XXXX	2 0
	Measurement & Instrumentation	ME-3103	2 1
	Refrigeration & Air Conditioning	ME-3301	3 1
	Heat & Mass Transfer	ME-3302	3 1
	ME Technical Elective - I	ME-3XXX	3 0
	Sub-Totals		16 3
Total			19
VII	Probability & Statistics	BS-1402	3 0
	Mechanical Vibrations	ME-4101	3 1
	ME Technical Elective - II	ME-4XXX	3 0
	Internal Combustion Engines	ME-4301	2 1
	ME Design Project - I	ME-4901	0 2
	Sub-Totals		11 4
Total			15
VIII	Engineering Management & Economics	MS-2405	2 0
	Professional & Business Ethics	HU-1007	2 0
	Control Engineering	ME-4102	2 1
	ME Technical Elective - III	ME-4XXX	3 0
	ME Design Project - II	ME-4902	0 4
	Sub-Totals		9 5
Total			14
TOTAL CREDIT HOURS			139

## NOTES:

1. All aspects of the laboratory components including teaching, attendance, assignments, examination and grading are treated separately from the theory components.
2. The basis of this Plan of Study is HEC Revised BE (Mechanical) Curriculum, 2012.



List of Electives

Course Title	
Technical Electives	
Introduction to Finite Element Method	Advanced Finite Element Methods
Introduction to Robotics	Advanced Mechanics of Materials
Gas Dynamics	Process Control
Industrial Safety & Environment	Tool Design
Maintenance Engineering	Turbomachinery
Industrial Quality Control & Assurance	Fluid Power: Hydraulics & Pneumatics
Introduction to Sustainable Energy	Introduction to Computational Fluid Dynamics
Energy Resources & Utilization	Aerodynamics
Renewable Energy Technologies	Aerospace Propulsion Systems
Fatigue & Fracture Mechanics	
Management Electives	
Project Management	Financial Management
Principles of Management	Entrepreneurship
Social Media Marketing	
Social Sciences Electives	
Introduction to International Relations	Professional Ethics
Critical Thinking	Social Anthropology
Understanding Psychology and Human Behavior	

International Projects



Shell Eco-Marathon Asia 2018

The Shell Eco-Marathon is an annual competition sponsored by Shell, in which participants build special vehicles to achieve the highest possible fuel efficiency. The Eco-Marathon is held around the world with events in Europe, America and Asia.

In March 2018, DSU student team participated in Shell Eco-Marathon Asia 2018 competition and was among the top 2 teams from Pakistan to make it to the track events and to register a valid run of 51 km/l.



IMechE UAS Challenge 2018

The Unmanned Aircraft Systems Challenge (UAS) is an annual student competition in aerospace sector that is organized by the Institution of Mechanical Engineers (IMechE). The event was held from 18-19 June, 2018 at Snowdonia Aerospace Center, Llanbedr, UK.

Team Zarrar of DHA Suffa University (DSU) participated for the 2nd consecutive year in IMechE UAS Challenge. The team received special appreciation by Rod Williams, Chief Scrutineer of the competition.



Formula Student Australasia (FSAE-A) 2016

In December 2016, our students participated in the international FSAE-A 2016 competition and earned the honor of being the first and only team from Pakistan to ever qualify for the dynamic track events in their very first year of participation.





# Bachelor Degree Programs

## BE (ELECTRICAL)



### Introduction

The Electrical Engineering Department at DHA Suffa University offers a Bachelor's Degree Program BE (Electrical) spanning over 4 years. The Electrical Engineering curriculum at DHA Suffa University is prepared in accordance with the most recent HEC guidelines. Specialization streams of Power Systems, Telecommunications, and Electronics are offered through elective courses beyond the core of Electrical Engineering. All BE (Electrical) students go through a common set of core Electrical Engineering courses in the first two years and then select a stream of their choice from the third year onwards. This allows students to select an area of their interest that also has market demand. This approach maximizes the chances of rapid absorption of BE (Electrical) graduates into the highly competitive job market.

### Eligibility

- Matric/O-level/SSC or an equivalent examination with at least 60% marks; and
- Intermediate/HSSC/FSc/A-level (Pre-Engineering) or an equivalent examination with at least 60% marks; and
- At least 50% marks in DSU Entrance Test





Plan of Study

Semester	Course Title	Course Code	Credit Hours	
I	Introduction to Computing and Programming	EE-1011	3	1
	Calculus and Analytical Geometry	BS-1301	3	0
	Applied Physics	BS-1101	3	1
	Electrical Workshop Practices	EE-1012	0	1
	English Composition	HU-1004	3	0
	Linear Algebra	BS-1302	3	0
	Total		15	3
II	Linear Circuit Analysis	EE-1021	3	1
	Computer Aided Engineering Drawing	EE-1023	0	1
	Object Oriented Programming	EE-1022	2	1
	Differential Equations	BS-2302	3	0
	Communication Skills	HU-1005	3	0
	Multivariate Calculus	BS-2301	3	0
	Total		14	3
III	Electrical Network Analysis	EE-2123	3	1
	Electronic Devices & Circuits	EE-2233	3	1
	Data Structure and Algorithms	EE-2031	3	1
	Complex Variables and Transforms	BS-3301	3	0
	Probability Methods for Engineers	BS-1403	3	0
	Total		15	3
IV	Electronic Circuit Analysis and Design	EE-2241	3	1
	Digital Logic and Design	EE-2242	3	1
	Signals and Systems	EE-2043	3	1
	Pakistan Studies	HU-2211	2	0
	Engineering Management and Economics	MS-2405	2	0
	Islamic Studies	HU-2110	2	0
	Total		15	3
V	Instrument and Measurement	EE-3252	3	1
	Microprocessor Based Systems	EE-3251	3	1
	Communication Systems	EE-3353	3	1
	Power Distribution and Utilization	EE-3154	3	0
	Electromagnetic Field Theory	EE-3055	3	0
	Total		15	3
VI	Computer Communication Network	EE-3361	3	1
	Linear Control Systems	EE-3062	3	1
	Electrical Machines	EE-3163	3	1
	EE Technical Elective - I	EE-3XXX	3	0
	Project Management	MS-3115	3	0
	Total		15	3
VII	EE Technincal Elective - II	EE-4XXX	2	1
	EE Technical Elective - III	EE-4XXX	3	1
	Design Project - I	EE-4XXX	0	3
	Non-EE Technical Elective - I	XX-XXX	3	0
	Technical and Business Communication	HU-4008	3	0
	Humanities / Social Science Elective	HU-XXXX	2	0
	Total		14	5
VIII	EE Technical Elective - IV	EE-4XXX	3	0
	EE Technical Elective - V	EE-4XXX	3	1
	Design Project - II	EE-4083	0	3
	Non-EE Technical Elective - II	XX-XXXX	3	0
	Non-Technical Elective	XX-XXXX	2	
	Tota		11	4
TOTAL CREDIT HOURS			140	

NOTES:

1. The lab/practical part of the course is treated separately. All aspects of the laboratory components including teaching, attendance, assignments, examination and grading are treated separately from the theory components.
2. National/international model being followed: HEC unified BE (Electrical) Curriculum, 2012 is the basis.

Specialization Streams

Area	Course Title	
Telecommunication	Computer Communication Networks	Transmission and Switching
	Optical Communication	Mobile and Pervasive Computing
	Digital Communication	Wave Propagation and Antennas
	RF and Microwave Engineering	Multimedia Communication
	Digital Image Processing	Wireless and Mobile Communication
	Satellite Engineering	Navigation and Radar Systems
	Information Theory and Coding	
Electronics	Digital Control Systems	Nanoelectronics
	Industrial Process Control	Embedded System Design
	Digital Electronics	Optoelectronics
	Instrumentation & Measurement	FPGA Based System Design
	Digital Image Processing	Organic Electronics
	Integrated Electronics	Industrial Electronics
	Digital System Design	VLSI Design
Power Systems	Advanced Electrical Machines	Power System Protection
	Power System Analysis	PLC and Electrical Drives
	Electrical Machine Design	Power System Stability & Control
	Power System Distribution	Power Generation
	Electrical Power Transmission	Renewable Energy Systems

Cross Registration

Under cross-registration, students enrolled in the BE (Electrical) degree program can get credits in their coursework at DSU by registering and taking exams in equivalent online courses offered by top-ranking foreign universities through edX or Coursera.

DSU Course	Foreign University Offering Equivalent Course Title	Foreign University Course
EE-1021 : Linear Circuit Analysis	MIT – USA	Circuits & Electronics
EE-3512 : Electrical Power Systems	MIT – USA	Introduction to Electric Power Systems
EE-3232 : Digital Signal Processing	Ecole Polytechnique de Lausanne (through Coursera)	Federale Digital Signal Processing
EE-3113 : Power Electronics	University of Colorado at Boulder (through Coursera)	Introduction to Power Electronics
EE-1011: Introduction to Computing & Programming	MIT – USA	Introduction to Computer Science and Programming
BS-1403: Probability and Statistics	UC Berkeley - USA	Introduction to Statistics
BS-1101: Applied Physics	University of Colorado at Boulder (through Coursera)	Physics-1 (for Physical Science Majors)
BS-1301: Calculus and Analytical Geometry	University of Pennsylvania (through Coursera)	Calculus: Single Variable
BS-1302: Linear Algebra	University of California, Irvine (through Coursera)	Algebra



# Bachelor Degree Programs

# BS (COMPUTER SCIENCE)



## Introduction

The Bachelor of Computer Science Program spans over four years consisting of core courses in Computing, Science, and Mathematics, with specialization courses in Cloud and Cluster Computing, Mobile & Ubiquitous Computing, Computational Linguistics, Computer Graphics & Visualization and Bio-Informatics. These courses are offered in close collaboration with the software industry so that students are well-prepared for the rapidly changing trends in IT. Students must complete 138 credit hours with a minimum CGPA of 2.0 to earn the degree. The purpose of the Bachelor in Computer Science Degree Program is to produce world-class IT entrepreneurs and researchers, who can be the backbone of the rapidly growing IT industry of Pakistan.

### Eligibility

- Intermediate/HSSC/FSc/A-levels or an equivalent examination with at least 50% marks; and
- Must have studied Mathematics in Intermediate/HSSC/FSc/A-levels; and
- At least 50% marks in DSU Entrance Test

## Plan of Study

Semester	Course Title	Course Code	Credit Hours
I	Introduction to Information and Communication Technology	CS-1201	3
	Introduction to Information and Communication Technology Lab	CS-1201L	1
	Programming Fundamentals	CS-1001	3
	Programming Fundamentals Lab	CS-1001L	1
	Islamic Studies	HU-1002	2
	English Composition & Comprehension	HU-1001	3
	Calculus and Analytical Geometry	BS-1301	3
Total			16
II	Object Oriented Programming	CS-1002	3
	Object Oriented Programming Lab	CS-1002L	1
	Digital Logic Design	CS-1101	3
	Digital Logic Design Lab	CS-1101L	1
	Communication Skills	HU-2001	3
	Multivariate Calculus	BS-2301	3
	Basic Electronics	BS-1102	2
	Basic Electronics Lab	BS-1102L	1
Total			17
III	Data Structures & Algorithms	CS-2001	3
	Data Structures & Algorithms Lab	CS-2001L	1
	Computer Organization and Assembly Language	CS-2101	2
	Computer Organization and Assembly Language Lab	CS-2101L	1
	Discrete Structures	CS-2002	3
	Pakistan Studies	HU-1006	2
	Technical & Business Writing	HU-3001	3
	Linear Algebra	BS-1302	3
Total			18
IV	Database Systems	CS-2003	3
	Database Systems Lab	CS-2003L	1
	Operating Systems	CS-2004	3
	Operating Systems Lab	CS-2004L	1
	Theory of Automata & Formal Languages	CS-2102	3
	HU/MG Elective I	HU/MGXXXX	3
	Probability & Statistics	BS-1402	3
Total			17
V	Design & Analysis of Algorithms	CS-3001	3
	Introduction to Software Engineering	CS-3102	3
	Data Communication & Computer Networks	CS-3002	3
	Compiler Construction	CS-3101	3
	HU/MG Elective II	HU/MGXXXX	3
	Differential Equations	BS-2302	3
Total			18
VI	Artificial Intelligence	CS-3103	3
	Information Security	CS-3003	3
	Computer Architecture	CS-3104	3
	CS Elective I	CS-33XX	3
	HU/MG Elective III	HU/MGXXXX	3
	Numerical Computing	BS-3302	3
Total			18
VII	Human Computer Interaction	CS-4100	3
	CS Project - 1	CS-4001	3
	CS Seminar Course 1	CS-4200	1
	CS Elective II	CS-43XX	3
	CS Elective III	CS-43XX	3
	CS Elective IV	CS-43XX	3
	HU/MG Elective IV	HU/MGXXXX	3
Total			19
VIII	Professional Issues in IT	CS-4202	3
	CS Project - 2	CS-4002	3
	CS Seminar Course 2	CS-4201	1
	CS Elective V	CS-43XX	3
	CS Elective VI	CS-43XX	3
Total			13
TOTAL CREDIT HOURS			136



Specialization Streams

Area	Course Title	
Mobile & Ubiquitous Computing	Computing Mobile Mobile & Wireless Human Computer Interaction Android Programming	Application Development Computing Mobile Software Engineering Tiny OS Cyber Security
Cloud & Cluster Computing	High Performance Computing Social Computing Cluster & Grid Computing Concurrent & Distributed Computing	Cloud Computing Big Data Analytics Semantic Web Computational Social Science
Bio-Informatics	Introduction to Bio-Informatics Computational Genetics Biological Data	Computational Genomics Protein Sequence & Structural Analysis Management Computational Chemistry
Computational Linguistics	Natural Language Processing Statistical NLP Computational Grammar	Text Mining Machine Learning Computational Morphology
Computer Graphics and Visualization	Introduction to Computer Graphics using Modern OpenGL High Performance Computing using CUDA Physically based animation in Computer Mobile Graphics Programming on Android	Graphics Programming in the Web Browser using WebGL Mathematical Methods in Computer Graphics Graphics Introduction to GPU programming using Shaders Scientific Visualization

Cross Registration

Under cross-registration, students enrolled in DSU BS (Computer Science) degree program can get credits in their coursework at DSU by registering and taking exams in equivalent online courses offered by top-ranking foreign universities.

Cross Registration with Online Courses at Stanford, MIT, UC Berkeley and others

Course Name	Foreign University Course	DSU Equivalent Course
Principles of Database Systems	University of Washington,	USA CS-204: Database Systems
Operating Systems and System Programming	UC Berkeley,	USA CS-206: Operating Systems
Introduction to Algorithms	MIT, USA	CS-302: Design and Analysis of Algorithms
Software Engineering	UC Berkeley, USA	CS-305: Software Engineering
Introduction to Artificial Intelligence	UC Berkeley, USA	CS-306: Artificial Intelligence
Programming Languages and Compilers	UC Berkeley, USA	CS-313: Compiler Construction
Introduction to Copyright Law	MIT, USA	CS-404: Professional Issues in IT
iPhone Application Development	Stanford, USA	CS-440: Mobile Application Development
Machine Learning	University of California Irvine, USA	CS-421: Machine Learning
Computer Graphics	MIT, USA	CS-551 Introduction to Computer Graphics using Modern OpenGL

Bachelor Degree Programs

BBA



Program Philosophy

The BBA program at DHA Suffa University anchors on providing **core** and **applied knowledge** of Management Sciences through an interactive and **experiential learning** process.

Program Objectives

- To provide a platform for the development of conceptual, critical and analytical skills to manage complex business situations in a global, intercultural and diverse environment.
- To facilitate understanding of interdisciplinary knowledge in order to recognize dynamic factors in business challenges and to propose innovative ideas for pragmatic solutions.
- To indoctrinate the core ethical principles within dynamics of the organizations & society that are necessary to become socially responsible and capable of adding value in the business world.

Learning Outcomes

We expect our students to achieve the following:

- **Analytical Knowledge:** Students can demonstrate sound technical & analytical competence pertaining to business management concepts & practices in a domestic as well as global scenario.
- **Strategic Thinking:** Students possess strategic & reflective cognitive skills that inculcate out of the box thinking with the ability to develop a pragmatic stance and situation rationalization for optimum results.
- **Interdisciplinary Competence:** Students are able to decipher real business challenges and to manage complex business situations in a heterogeneous cultural environment.
- **Communication Skills:** Students have confident verbal and written communication skills with the ability to develop and deliver quality content in a professional manner.
- **Ethical Awareness:** Students are ethically aware and equipped to become responsible citizens and help build a better society through continuous engagement in community service.

Eligibility

- Intermediate or an equivalent examination with minimum 45% marks\* or
- A-Level with minimum 3 passes in principal subjects (IBCC equivalence required); and
- At least 50% marks on DHA Suffa University Entrance Test

\*Candidates less than 50% have to appear for an interview



Plan of Study

Semester	Course Title	Course Code	Credit Hours
I	Introduction to Computing	MS 1301	3
	Microeconomics	MS 1401	3
	Freshman English – I	HU 1005	3
	Islamic Studies / Ethics	HU 1202	3
	Pakistan Studies	HU 2102	3
	Business Mathematics	BS 1401	3
	Total		18
II	Principles of Management	MS 1101	3
	Principles of Accounting	MS 1201	3
	Macroeconomics	MS 1402	3
	Introduction to Psychology & Human Behavior	HU 1301	3
	Sociology	HU 1401	3
	Freshman English – II	HU 1006	3
	Total		18
III	Business Law	MS 2102	3
	Financial Accounting	MS 2202	3
	Development Economics	MS 2403	3
	Logic	HU 2501	3
	Oral Communication & Presentation Skills	HU-2007	3
	Business Statistics	BS 2401	3
	Total		18
IV	Principles of Marketing	MS 2001	3
	Organizational Behavior	MS 2103	3
	Cost Accounting	MS 2203	3
	Economic Issues of Pakistan	MS 2404	3
	Business Communication	HU 2008	3
	Statistical Inference	BS 3401	3
	Total		18
V	Marketing Management	MS 3002	3
	Human Resource Management	MS 3104	3
	Introduction to Business Finance	MS 3204	3
	Management Information System	MS 3302	3
	Production & Operation Management	MS 3501	3
	Business Research Methods	MS 3601	3
	Total		18
VI	Consumer Behavior	MS 3002	3
	Retail Management	MS 3104	3
	Entrepreneurship & Small Business Management	MS 3204	3
	E- Business	MS 3302	3
	Data Analytics	MS 3501	3
	Business Ethics	MS 3601	3
	Total		18
VII	Professional Development	MS 4106	3
	Financial Management	MS 4205	3
	Foreign Language	MS 4711	3
	Specialization – I	MS XXXX	3
	Specialization – II	MS XXXX	3
	Total		15
VIII	Business Policy	MS 4107	3
	Research Project	MS 4603	6
	Specialization – III	MS XXXX	3
	Specialization – IV	MS XXXX	3
	Total		15
TOTAL CREDIT HOURS			138

Specialization Streams

Area	Course Title
Marketing	Advertising
	Global Marketing/International Marketing
	Retail Marketing
	Customer Relationship Management
	Direct Marketing
	Export Marketing
	Event Management
	Internet Marketing/Digital Marketing
	Marketing Planning & Analysis
	Social Media Marketing
	Relationship Marketing
	Sales Management
	Business to Business Marketing
	Promotional and Advertisement Management
Human Resource Management	Conflict Resolution & Negotiation
	Leadership & Motivational Techniques
	Performance Appraisal
	HR Information System
	Compensation Management
	Human Resource Management
	Staffing & Performance Management
	International HRM
	Change Management
	Recruitment & Selection
	Training & Development
	Human Resource Planning
	Legal, Ethical and Safety Issues
	Organizational Development
Finance	Security Analysis
	Treasury & Fund Management
	International Finance
	Financial Economics
	Entrepreneurial & Small Business
	Finance
	Financial Markets & Institutions
	Business Taxation Policy & Practice
	Accounting for Decision Making
	Islamic Banking & Finance
	Investment & Portfolio Management
	Risk Management
	Analysis of Financial Statement
	Managerial Accounting
	Auditing
	Marketing of Financial Services
Management Information Systems	Programming Application Systems
	Information Systems Analysis and Design
	Database Systems
	Networking
	Business Application Programming
	Information Systems Security
	System and Network Administration
	Web Application Development
	Strategic Information Technology Management
Supply Chain Management	Introduction to Supply Chain Management
	Lean and Six Sigma Processes
	Logistics and Transportation Management
	Global Supply Chain Management
	Total Quality Management
	Distribution and Supply Chain Network Design
	Production Planning and Inventory Control
	Supply Chain Modeling and Optimization
	Supply Chain Design, Management & Control



# Bachelor Degree Programs

## BS (ACCOUNTING & FINANCE)



### Introduction

The program will help students acquire technical skills required to analyze financial statements, perform financial analysis and study financial and security markets. They would develop in depth knowledge of the role of accounting and finance in measuring business growth. The program comprises of curriculum which would equip the students to pursue a career in leading banks and financial institutions. The specialization stream provides graduates an opportunity to pursue careers as accountants, auditors, tax specialists, financial analysts, fund managers, traders, brokers and investment researchers.

### Eligibility

- Intermediate or an equivalent examination with minimum 50% marks or
- A-Level with minimum 3 passes in principal subjects (IBCC equivalence required); and
- At least 50% marks on DHA Suffa University Entrance Test

### Plan of Study

Semester	Course Title	Cr Hr	ICAP	ICMAP	ACCA
I	Functional English	3	✓		
	Introduction to Mathematics	3	✓		✓
	Introduction to Statistics	3	✓		✓
	Islamic Studies	3			
	Pakistan Studies	3			
II	Mercantile Law	3	✓	✓	✓
	Business Communication	3	✓		✓
	Introduction to Economics	3	✓		✓
	Introduction to Finance	3	✓		
	Introduction to Financial Accounting	3	✓	✓	✓
III	Financial Accounting	3	✓	✓	✓
	Money, Banking & Capital Markets	3			
	Governance, Risk and Ethics	3			✓
	Organizational Behavior	3	✓		
	Taxation	3	✓	✓	✓
IV	Company Law	3	✓		✓
	Cost Accounting	3	✓		✓
	Financial Management	3			✓
	Auditing	3	✓	✓	✓
	Information Technology	3	✓		
V	IT Management, Audit and Control	3	✓		✓
	Advanced Accounting	3	✓	✓	✓
	Financial Reporting	3	✓	✓	✓
	Corporate Law	3	✓		✓
	Management Accounting	3	✓	✓	✓
VI	Strategic Financial Management	3			✓
	Strategic Management Accounting	3			✓
	Business Management	3	✓	✓	✓
	Advanced Taxation	3	✓		✓
	Advanced Auditing	3	✓		✓
VII	Business Finance Decision	3	✓		
	Business Research Methods	3			
	Business Analysis	3			
	Strategic Management	3			✓
	Performance Management	3			✓
VIII	Advanced Financial Management	3			✓
	Islamic Banking & Finance	3			
	Investment Analysis and Portfolio Management	3			✓
	Advanced Performance Management	3			✓
	Research Project	3			
Total Credit Hours		120			

### \*Exemptions

- Will only be allowed for courses passed from the HEC recognized institutions e.g., Institute of Chartered Accountants of Pakistan (ICAP), Institute of Cost and Management Accountants of Pakistan (ICMAP) and others.
- Will be granted where the original earned grade is 'C' or better.
- Will be granted to a maximum of 50% of the total credits in the program.
- All exemptions shall be governed by relevant HEC guidelines.



# Master Degree Programs

# MS (MECHANICAL)

### Introduction

The Department of Mechanical Engineering offers a Master of Science in Mechanical Engineering Degree Program in the following four specializations:

1. Engineering Mechanics
2. Thermofluids
3. Materials and Manufacturing
4. Energy Systems and Technologies

MS (ME) students are required to complete 30 credit hours of graduate studies which include:

- Coursework: 24 Credit Hours
- Thesis Research: 6 Credit Hours

The MS (ME) coursework is divided between a set of core and specialization (elective) courses offered by the ME Department, subject to availability of faculty and its teaching or research interests.

The complete list of electives is available on the next pages.

### Eligibility

- The applicant must have a Bachelors degree in Mechanical Engineering or a closely related Engineering discipline with minimum CGPA of 2.5 / 4.0
- The applicant must pass the NTS GAT General Test with a minimum score of 50%

*\*or other such equivalent tests acceptable as per HEC guidelines*

S.No.	Course Title	Credit Hours
Semester 1		
1	Compulsory 1 - Mathematics	3
2	Compulsory 2 - Specialization	3
3	Compulsory 3 - Specialization	3
Semester 2		
4	Compulsory 4 - Specialization	3
5	Elective 1 - Specialization	3
6	Elective 2 - Specialization	3
Semester 3		
7	Elective 3 - General	3
8	Elective 4 - General	3
Semester 4		
9	MS Thesis	6
TOTAL		30

Note: 'Elective 3 - General' and 'Elective 4 - General' courses can be taken from any of the courses listed under 'Elective Courses for MS and PhD in Mechanical Engineering'.





MS (ME) Coursework – Compulsory Courses

a. Students will be required to take three compulsory courses in their area of specialization which are as follows:

Engineering Mechanics

- 1. Continuum Mechanics
- 2. Advanced Dynamics
- 3. Advanced Finite Element Analysis

Thermofluids

- 1. Advanced Fluid Mechanics
- 2. Advanced Heat & Mass Transfer
- 3. Advanced Thermodynamics

Materials and Manufacturing

- 1. Advanced Manufacturing Processes
- 2. Advanced Engineering Materials
- 3. Selection of Materials

Energy Systems and Technologies

- 1. Advanced Heat and Mass Transfer
- 2. Energy Management and Utilization
- 3. Fundamentals of Energy Engineering

b. In addition, the students will be required to take one course from the following list of five approved graduate level mathematics courses:

- 1. Advanced Numerical Methods
- 2. Functional Analysis and Computational Linear Algebra
- 3. Applied Regression and Design of Experiments
- 4. Advanced Probability and Statistics
- 5. Advanced Mathematical Techniques

MS (ME) Coursework – Elective Courses

In addition to the four compulsory courses, each MS (ME) student at DSU will be required to complete four elective courses (12 credit hours). The elective courses offered by the Department of Mechanical Engineering will depend on the teaching and research interests of the ME graduate faculty.

Elective Courses for MS and PhD in Mechanical Engineering

Area	Course Title
General Courses	Optimization of Engineering Systems Measurements and Instrumentation Special Topics in Mechanical Engineering
Mathematics Courses	Advanced Numerical Methods Functional Analysis and Computational Linear Algebra Applied Regression and Design of Experiments Advanced Probability and Statistics Advanced Mathematical Techniques
Engineering Mechanics Stream Courses	Continuum Mechanics Advanced Finite Element Methods Advanced Dynamics Constitutive Modeling of Materials Advanced Vibrations Nonlinear Dynamics and Chaos Microelectromechanical Systems Robotics and Parallel Mechanisms Theory of Elasticity Theory of Plasticity Modern Control of Linear Systems Rotordynamics Smart Materials and Structures Mechanics of Composite Materials Theory of Plates and Shells Special Topics in Engineering Mechanics

Area	Course Title	
Thermofluid Stream Courses	Advanced Fluid Mechanics	Advanced Gas Dynamics
	Computational Fluid Dynamics	Renewable Energy Technologies
	Modeling and Simulation of Turbulent Flows	Advanced Thermodynamics
	Two Phase Flows and Phase Change	Conduction Heat Transfer
	Fluid Structure Interaction	Convection Heat Transfer
	Turbulence and Mixing	Radiation Heat Transfer
	Advanced Heat and Mass Transfer	Advanced Turbomachinery
	Combustion Phenomena	Transport Processes in Energy Systems
	Viscous Flow	Experimental Fluid Mechanics
	Power Plant Engineering	Inviscid Flow
	Aerodynamics	Special Topics in Thermofluids
	Aerospace Propulsion	
	Materials and Manufacturing Stream Courses	Advanced Engineering Materials
Corrosion Engineering		Finite Element Analysis in Manufacturing Processes
Materials for High Temperature Applications		Advanced Machine Design
Advanced Fatigue and Fracture Analysis		Non-destructive Testing
Tribology		Project Management
Material Structure and Defects		Application of Computer Graphics in Engineering
Thermodynamics of Materials		Artificial Intelligence in Design and Manufacturing
Materials Characterization		Reliability and Quality Engineering
Engineering Nanomaterials		Sustainable Manufacturing
Mechanical Properties of Engineering Polymers		Selection of Materials
Advanced Manufacturing Processes		Special Topics in Materials and Manufacturing
Advanced Product Design		
Manufacturing Process Capability		
Supply Chain Management in Engineering		
Simulation of Industrial System		
Energy System and Technology Stream Courses	Energy Audit and Management	Advanced Clean Coal Technologies
	Solar Thermal Engineering	Combustion and Pollution Control
	Bio Energy Engineering	Hydrogen Technologies and Fuel Cells
	Environmental Impact Assessment	Energy Management in Buildings
	Hybrid Power Sources	Energy Economics and Management
	Hydro Power Plants	Solar Photovoltaic Systems
	Wind Energy Engineering	Biofuels Engineering
	Instrumentation in Energy Systems	Advanced Heat and Mass Transfer
	Fuels and Combustion	Energy Management and Utilization
	Power Electronics and Motor Drives	Fundamentals of Energy Engineering
	Electrical Power Transmission and Distribution	Electrical Power Generation Systems
	Renewable Energy Systems	
	Energy Systems Modelling and Simulation	

MS Thesis

As part of the requirements for the award of MS (ME) degree, the MS student must carry out research work on an approved topic and submit a thesis. The thesis work is required to be carried out under the supervision of an approved Supervisor and Advisory Committee. The MS Thesis will be evaluated as specified in the DHA Suffa University Rules and Regulations for Graduate Studies.



# Master Degree Programs

# MS (ELECTRICAL)



## Introduction

The Department of Electrical Engineering offers a Master of Science in Electrical Engineering Degree Program requiring the student to complete 30 credit hours of graduate studies which include:

- Coursework 24 Credit Hours
- Thesis Research 6 Credit Hours

MS (EE) program requires the students to complete a small set of core courses and allows them to choose most of the remaining courses from the advanced elective courses offered.

## Eligibility

- The applicant must have a Bachelors degree in Electrical Engineering or a closely related Engineering discipline with a minimum CGPA of 2.5/4.0; and
- The applicant must pass the NTS GAT General Test with a minimum score of 50% Total Credit Hours 140+0

## MS (EE) Coursework – Core Courses

The core courses of the MS (EE) Program are:

- Advanced Mathematical Techniques
- Advanced Computing and Simulation Techniques
- Research Methodology

## MS (EE) Coursework – Elective Courses

In addition to the three core courses, each MS (EE) student at DSU shall choose five elective courses (15 credit hours) from the graduate courses offered by the Electrical Engineering Department. Furthermore, out of the five elective courses, a student may choose two approved graduate courses offered by other departments at DSU. The elective courses offered by the Department of Electrical Engineering will depend on the teaching and research interests of the EE graduate faculty. A tentative list of sample EE Elective Courses that may be offered by the Department is given on page 75.

## Elective Courses for MS and PhD in Electrical Engineering

Area	Course Title	
Power Systems Engineering	Advanced High Voltage Engineering	Power System Circuit Breakers and Sub-stations
	Power System Modeling and Analysis	Advanced Power System Transmission
	Power System Distribution	Power System Reliability
	Advanced Power System Protection	Insulation Coordination in Power Systems
	Power Generation Economics	Power System Restructuring
	Energy Management Advanced	Power System Stability
	Power Quality	Renewable Energy Systems
	Distributed Generation Condition	Monitoring Techniques
	Control of DC Machines and Drives	Control of AC Machines and Drives
	Power Electronics Devices and Converters	Modeling and Simulation of Converters
	Switch-Mode Power Supplies	Modeling and Simulation of Electrical Machines
	Special Electrical Machines	Advanced Electrical Machine Design
Control Engineering	Linear Control Systems	Non-Linear Control Systems
	Linear Multi variable Control Theory	Control System Optimization
	Optimal Control Systems Random	Variables and Stochastic Processes
	Stochastic Processes in Electrical	Engineering Estimation Theory
	Adaptive Control Systems	Stochastic Control
	Digital Control Systems	Dynamics of Robots
	Introduction to Chaos Theory	Chaos Theory & Fractals
	Linear Control Systems	Digital Control
	Non-linear Control Systems	Optimal Multi variable Control
	Robust Control	System Identification
	Adaptive Filter Theory	Detection & Estimation
	Filtering & Tracking	Fuzzy Control
Electronics and Embedded Sytems	Semiconductor Device Physics	Semiconductor Processing
	Linear Control Systems	Electromagnetic Field Analysis
	Stochastic Systems	Quantum Mechanics
	Microwave Devices	Solid State Electronics
	Non-Linear Control Systems	Thin Film Processing
	Radiating Systems & Antennas	Photonic Devices
	Thin Film Characterization	Organic Electronics
	Digital Integrated Circuit Design	Analog Integrated Circuit Design
Telecommunication	Probability and Random Processes	Advanced Communication Systems
	Advanced Digital Communication	Information Theory and Coding
	Advanced Communication	Networks Microwave Systems
	Advanced concepts in Radar Applications	Global Positioning and Navigation Systems
	Advanced Digital Signal Processing	Advanced Mobile Communication
	Signal Detection and Estimation	Advanced Optical Communication
	Advanced Satellite Communications	Radio wave Propagation
	Broadband Communication	Electromagnetic Compatibility
Communication Systems and Networks	Electromagnetic Field Analysis	Semiconductor Device Physics
	Linear Control Systems	Advanced DSP
	Stochastic Systems	Radiating Systems & Antennas
	Microwave Networks & Passive Components	Microwave Devices
	Advanced Computer Networks	Adaptive Filter Theory
	Secure Communications	Advanced Digital Communication
	Computational E.M.	Microwave IC Design
	Real-time DSP	Spatial Array Processing
	Filtering & Tracking	Information & Coding Theory
	Wireless Communication	Digital Integrated Circuit Design
	Stochastic Processes	Modeling and Simulation
	Telecommunication Network Operations	Signal Processing Applications in Reconfigurable Architecture

## MS Thesis

As part of the requirements for the award of MS (EE) degree the MS students carry out research work on an approved topic and submit a thesis. Students conduct the thesis research under the supervision of an approved Supervisor and Advisory Committee. Both the thesis and the student must pass the evaluation as specified in the DHA Suffa University Rules and Regulations for Graduate Studies.



# Master Degree Programs

# MS (COMPUTER SCIENCE)



### Introduction

The Master in Computer Science program at DSU is designed to help students advance their professional knowledge and skills beyond the Bachelor level. The specific objectives of the program are to enable graduates to:

- Engage in problem solving through critical thinking which is essential for studying at the doctoral level;
- Understand the computing profession with respect to professional, social, and ethical issues that prepare them for potential challenges in the future;
- Analyze the computing needs of user communities and individuals;
- Prepare a design to solve computational problems using state-of-the-art knowledge and information resources;
- Solve the real-world problems using algorithmic abstraction for the betterment of mankind.

### Program Structure

The MS in Computer Science program at DSU is a blend of the academic and professional exposure to implement an effective curriculum model. A rigorous 24 credit hours coursework is followed by 6 credit hours thesis work unified with the chosen field of specialization. The program is spread over 4 semesters with minimum 30 credit hours that are based on 2 core courses of fundamental computing with 6 electives from a wide range of elective courses. The research interests in the department include: High Performance Computing, Ubiquitous Computing, Software Engineering, Computer Networks and Information Security, Computer Graphics and Visualization, Bio-informatics and Big Data Analytics.

Eligibility

- Bachelors degree or equivalent (minimum 130 credit hours post FA/FSc/HSSC/Grade-12 equivalent) with sixteen (16) years of education in Computer Science or Engineering or a closely related discipline with a minimum CGPA of 2.5/4.0; and
- NTS GAT General Test with a minimum cumulative score of 50% or other such equivalent tests acceptable as per HEC guidelines

### Plan of Study

Semester	Course Title	Course Code	Credit Hours
I	Advance Algorithm Analysis	CS-501	3
	MS CS Elective 1	CS-5XX	3
	MS CS Elective 2	CS-5XX	3
	Total		9
II	Advance Theory of Computation	CS-502	3
	MS CS Elective 3	CS-5XX	3
	MS CS Elective 4	CS-5XX	3
	Total		9
III	MS CS Elective 5	CS-5XX	3
	MS CS Elective 6	CS-5XX	3
	Total		6
IV	MS Thesis 3	CS-6XX	6
	Total 6		6
Total Credit Hours (all semesters)			30

### Elective Courses for MS and PhD in Computer Science

Mobile & Ubiquitous Computing	Ubiquitous Computing Mobile Application Development Mobile & Wireless Computing Mobile Software Engineering
Cloud & Cluster Computing	Computing Cloud Computing Social Computing Cluster & Grid Computing Concurrent & Distributed Computing Big Data Analytics Computational Social Science Data Mining
Bioinformatics	Introduction to Bioinformatics Computational Biology Biological Data Management Computational Genomics Protein Sequence & Structural Analysis System Biology
Computational Linguistics	Natural Language Processing Statistical NLP Computational Grammar Machine Learning Computational Morphology
Computer Graphics and Visualization	Advanced Computer Graphics Physically based Animation in Computer Graphics Mobile Graphics Programming on Android High Performance Computing using CUDA Graphics Programming in the Web Browser using WebGL Mathematical Methods in Computer Graphics Introduction to GPU Programming using Shaders Scientific Visualization



# Master Degree Programs

# MBA

## Program Philosophy

The MBA program at DHA Suffa University strives to provide **meta knowledge** to analytical minds by promoting **critical** and **reflective thinking** in **situation analysis & decision making** within an environment that nurtures **innovative ideas**.

## Program Objectives

- To prepare tomorrow's business strategists and decision makers through interactive facilitation of learning in a practical environment.
- To stimulate application of conceptual theories on meta-theoretical business situations to bridge the gap between academia and industry.
- To highlight the need to intertwine business practices with ethics, transparency and accountability to become a role model.

## Learning Outcomes

We expect our students to achieve the following:

- **Business Decision Making:** Graduates demonstrate the ability to perform necessary analysis, diagnose problems, evaluate alternatives and make effective decisions as a result of our case based pedagogy.
- **Critical Thinking:** Graduates understand the complexities of a business environment and possess the required cognitive skill-set to think critically and develop strategies within the limits of available resources.
- **Situation Analysis & Management:** Graduates can apply qualitative and quantitative approaches to obtain valuable information and tackle complex business situations utilizing global perspectives to identify and understand significant international and multicultural issues.
- **Entrepreneurship & Innovation:** Graduates possess fundamental skills of creating and managing innovation, new business development, and high-growth potential entities in a highly competitive environment.
- **Social & Ethical Sentience:** Graduates exhibit ethical consciousness and understand implications of decisions on society and environment.

## Eligibility

- For all MBA/EMBA Programs at least 50% marks in DSU Entrance Test
- MBA pathway for 16 years of Business Education (e.g. BBA, MBA, MCom) with minimum CGPA 2.0/4.0 or 50% marks: Cr Hrs 36 Duration 1.5 years Semesters 3
- Professionally qualified Chartered Accountants (ACA/FCA) and Cost & Management Accountants (ACMA/FCMA) will be given preference.
- MBA pathway for 16 years of education (e.g. BE, MBBS, MSc, MA etc.) with minimum CGPA 2.0/4.0 or 50% marks: Cr Hrs 60 Duration 2 years Semesters 4
- MBA pathway for 14 years of education (e.g. BCom, BSc, BA etc.) with minimum CGPA 2.0/4.0 or 50% marks: Cr Hrs 90 Duration 3.5 years Semesters 7





## MBA 36 Credit Hours (1.5 Years)

Semester	Course Title	Course Code	Credit Hours
I	International Business	MS 5006	3
	Strategic Finance	MS 5206	3
	Advanced & Applied Research Methods	MS 5604	3
	Specialization – I	MS XXXX	3
	Total		12
II	Strategic Marketing	MS 5005	3
	Strategic HRM	MS 5108	3
	Specialization – II	MS XXXX	3
	Specialization – I11	MS XXXX	3
	Total		12
III	Strategic Management	MS 6109	3
	Final / Capstone Project	MS XXXX	6
	Specialization – IV	MS XXXX	3
	Total		12
TOTAL CREDIT HOURS			36

## MBA 60 Credit Hours (2 Years)

Semester	Course Title	Course Code	Credit Hours
I	Principles of Marketing	MS 4001	3
	Business Management & Ethics	MS 4110	3
	Financial Accounting	MS 4202	3
	Managerial Communication	HU 5001	3
	Business Mathematics & Statistics	BS 5410	3
	Total		15
II	Marketing Management	MS 5002	3
	Strategic HRM	MS 5108	3
	Financial Management	MS 5205	3
	Business Economics	MS 5405	3
	Specialization – I	MS XXXX	3
	Total		15
III	Strategic Marketing	MS 5005	3
	International Business	MS 5006	3
	Strategic Finance	MS 5206	3
	Advanced & Applied Research Methods	MS 5604	3
	Specialization – II	MS XXXX	3
	Total		15
IV	Strategic Management	MS 6109	3
	Specialization – III	MS XXXX	3
	Specialization – IV	MS XXXX	3
	Final / Capstone Project	MS XXXX	6
	Total		15
TOTAL CREDIT HOURS			60

## MBA 90 Credit Hours (3.5 Years)

Semester	Course Title	Course Code	Credit Hours
I	Principles of Marketing	MS 3001	3
	Business Management & Ethics	MS 3110	3
	Financial Accounting	MS 3202	3
	Managerial Communication	HU 5001	3
	Business Mathematics & Statistics	BS 5410	3
	Total		15
II	Marketing Management	MS 3002	3
	Organizational Behavior	MS 3103	3
	Cost Accounting	MS 3203	3
	Business Economics	MS 3401	3
	Business Research Methods	MS 3601	3
	Total		15
III	Consumer Behavior	MS 4003	3
	Human Resource Management	MS 4104	3
	Introduction to Business Finance	MS 4204	3
	Enterprise Applications	MS 4304	3
	Total		12
IV	Entrepreneurship	MS 4111	3
	Financial Management	MS 4205	3
	E-Business	MS 4303	3
	Production & Operations Management	MS 4501	3
	Total		12
V	Strategic Marketing	MS 5005	3
	International Business	MS 5006	3
	Specialization – I	MS XXXX	3
	Specialization – II	MS XXXX	3
	Total		12
VI	Strategic Finance	MS 5206	3
	Advanced & Applied Research Methods	MS 5403	3
	Specialization – III	MS XXXX	3
	Specialization – IV	MS XXXX	3
	Total		12
VII	Strategic HRM	MS 5108	3
	Strategic Management	MS 6109	3
	Research / Capstone Project	MS XXXX	6
	Total		12
TOTAL CREDIT HOURS			90



Specialization Streams

Students can choose elective courses from one of the following five specialization streams namely Finance, Marketing, Human Resource Management (HRM), Management Information System and Supply Chain Management.

Area	Course Title	
Marketing	Services Marketing Public Relations & Media Marketing Trade Marketing Competitive Intelligence Marketing Industrial Marketing Brand Management	Media Planning Integrated Marketing Communications Marketing Research Pharmaceutical Marketing Pharmaceutical Sales Management Healthcare Marketing
Human Resource Management	Talent Management Crisis Management Compensation and Benefits Job Analysis & Design Motivation & Reward Management Strategic HRM & Leadership Workforce Diversity Management Industrial & Organizational Psychology	International HRM Challenges Employee Engagement Organizational Development Labor Relations Workforce Planning, Development & Outsourcing Recruitment & Selection Conflict Resolution & Negotiation Training & Development
Finance	Financial Derivatives Working Capital Management Corporate Governance Financial Strategy & Corporate Restructuring Capital Budgeting & Financial Planning Venture Capital & Private Finance Multinational Finance Management Fixed Income Securities Prudential Regulations	Banking Operation & Credit Management Applied Portfolio & Fund Management Corporate Finance Security Analysis Corporate & Investment Banking Auditing Taxation Islamic Finance Theory and Practice
Management Information Systems	Information Systems Project Management Decision Support and Business Intelligence Systems Advanced Database Management Advanced Systems Analysis and Design Business Information Security Data Warehousing Information Systems Sourcing IT Security Controls	Data Mining Customer Relationship Management Technologies E-Commerce Technologies Data Communication and Networking Software Development Methodologies Internet Development Technologies Oracle IT Information Security, Audit & Control
Supply Chain Management	Procurement and Sourcing BPR/ERP Strategic Logistics Management Distribution and Channels Management SCM Technology and Applications Forecasting in Supply Chain	Project Management Vendor Selection and Development Customer Relationship Management Quality Assurance in Supply Chain Management Supply Chain Strategies Marketing Channels





# Master Degree Programs

# EXECUTIVE MBA

## Program with a Difference

The Executive MBA (EMBA) is designed for mid-career professionals preparing them to take the next step in their careers through developing their knowledge of business concepts and their application in the real world. This is a two-year degree program designed for students who have successfully completed 14 years of education and are looking to obtain a degree in a minimum two year period through classes conducted over the weekend. The focus throughout this program will be on real world application of theoretical concepts learned in the classroom taught by experienced faculty, a number of whom will consist of professionals working in the industry. The students will be required to complete 60 credit hours consisting of 14 core courses, 4 electives in their fields of specialization and a final project.

The program is designed to be flexible to accommodate the needs of busy professionals and can be completed in a minimum period of 2 years that can be extended up to a maximum of 5 years.

### Eligibility

- Minimum 14 years of education at an HEC recognized university with a minimum CGPA of 2.5 with minimum 4 years of managerial cadre experience\*
- At least 45% on the Entrance Test followed by an interview

\*As per HEC rule EMBA is equivalent to an undergraduate degree

## Plan of Study

### Program structure:

60 credit hours, 18 courses, 1 project  
2 Semesters per year, Classes on weekend

Semester	Course Title	Course Code	Credit Hours
I	Management Theory & Practice	MS 4112	3
	Financial Accounting	MS 4202	3
	Business Economics	MS 4405	3
	Managerial Communication	HU 5001	3
	Business Mathematics & Statistics	BS 5410	3
	Total		15
II	Marketing Management	MS 4002	3
	Leadership, Ethics & Change	MS 4113	3
	Business Law & Corporate Governance	MS 4114	3
	Financial Management	MS 4205	3
	Business Research Methods	MS 4601	3
	Total		15
III	Strategic Marketing	MS 4005	3
	Strategic Finance	MS 4206	3
	Advanced & Applied Research Methods	MS 4403	3
	Specialization – I	MS XXXX	3
	Specialization – II	MS XXXX	3
	Total		15
IV	Strategic Management	MS 4109	3
	Specialization – I11	MS XXXX	3
	Specialization – IV	MS XXXX	3
	Final/Capstone Project	MS XXXX	6
	Total		15
TOTAL CREDIT HOURS			60

## Specialization Streams

Students can choose elective courses from one of the following five specialization streams namely Finance, Marketing, Human Resource Management (HRM), Management Information System and Supply Chain Management.

Area	Course Title	
Marketing	Services Marketing Public Relations & Media Marketing Trade Marketing Competitive Intelligence Marketing Industrial Marketing Brand Management	Media Planning Integrated Marketing Communications Marketing Research Pharmaceutical Marketing Pharmaceutical Sales Management Healthcare Marketing
Human Resource Management	Talent Management Crisis Management Compensation and Benefits Job Analysis & Design Motivation & Reward Management Strategic HRM & Leadership Workforce Diversity Management Industrial & Organizational Psychology	International HRM Challenges Employee Engagement Organizational Development Labor Relations Workforce Planning, Development & Outsourcing Recruitment & Selection Conflict Resolution & Negotiation Training & Development
Finance	Financial Derivatives Working Capital Management Corporate Governance Financial Strategy & Corporate Restructuring Capital Budgeting & Financial Planning Venture Capital & Private Finance Multinational Finance Management Fixed Income Securities Prudential Regulations	Banking Operation & Credit Management Applied Portfolio & Fund Management Corporate Finance Security Analysis Corporate & Investment Banking Auditing Taxation Islamic Finance Theory and Practice
Management Information Systems	Information Systems Project Management Decision Support and Business Intelligence Systems Advanced Database Management Advanced Systems Analysis and Design Business Information Security Data Warehousing Information Systems Sourcing IT Security Controls	Data Mining Customer Relationship Management Technologies E-Commerce Technologies Data Communication and Networking Software Development Methodologies Internet Development Technologies Oracle IT Information Security, Audit & Control
Supply Chain Management	Procurement and Sourcing BPR/ERP Strategic Logistics Management Distribution and Channels Management SCM Technology and Applications Forecasting in Supply Chain	Project Management Vendor Selection and Development Customer Relationship Management Quality Assurance in Supply Chain Management Supply Chain Strategies Marketing Channels





# Master Degree Programs

## MS (MANAGEMENT SCIENCES)

### Introduction

The Department of (Management Sciences) offers a Master of Science in Management Sciences degree program which requires the students to complete 30-credit hours of graduate studies as follows:

- (a) Core coursework: 12 Credit Hours
- (b) Specialization Courses: 12 Credit Hours
- (c) Thesis Research: 6 Credit Hours

The MS (Management Sciences) program has been structured to envisage the current challenges being faced by the management professionals and scholars and provides the participants with the

- Vision and capacity to excel in their professional careers;
- Latest theoretical and practical advances in the relevant fields;
- Research methods and techniques to undertake research assignments independently;
- Appropriate academic writing and publication guidelines; and
- Tools necessary for a career in academia.

### Plan of Study

Semester	Course Title	Course Code	Credit Hours
I	Advanced Research Methods	RMT-701	3
	Research Ethics and Academic Writing	RMT-702	3
	Case Research Methodology	RMT-703	3
	Specialization – I	---	3
II	Multivariate Analysis	RMT-751	3
	Specialization – II	---	3
	Specialization – III	---	3
	Specialization – IV	---	3
III & IV	Thesis	---	6
	Total		30

### Specialization

Area	Course Title
Finance	Investment Analysis
	Portfolio Management
	Derivatives
	Risk Management
Marketing	Analysis of Financial Statements
	Brand Management
	Advertising
	Consumer Behavior
	Services Marketing
HRM	Marketing Research
	Training & Development
	Recruitment & Selection
	Performance Appraisal
	Compensation Management
	Change Management
	Conflict Resolution and Negotiation Skills



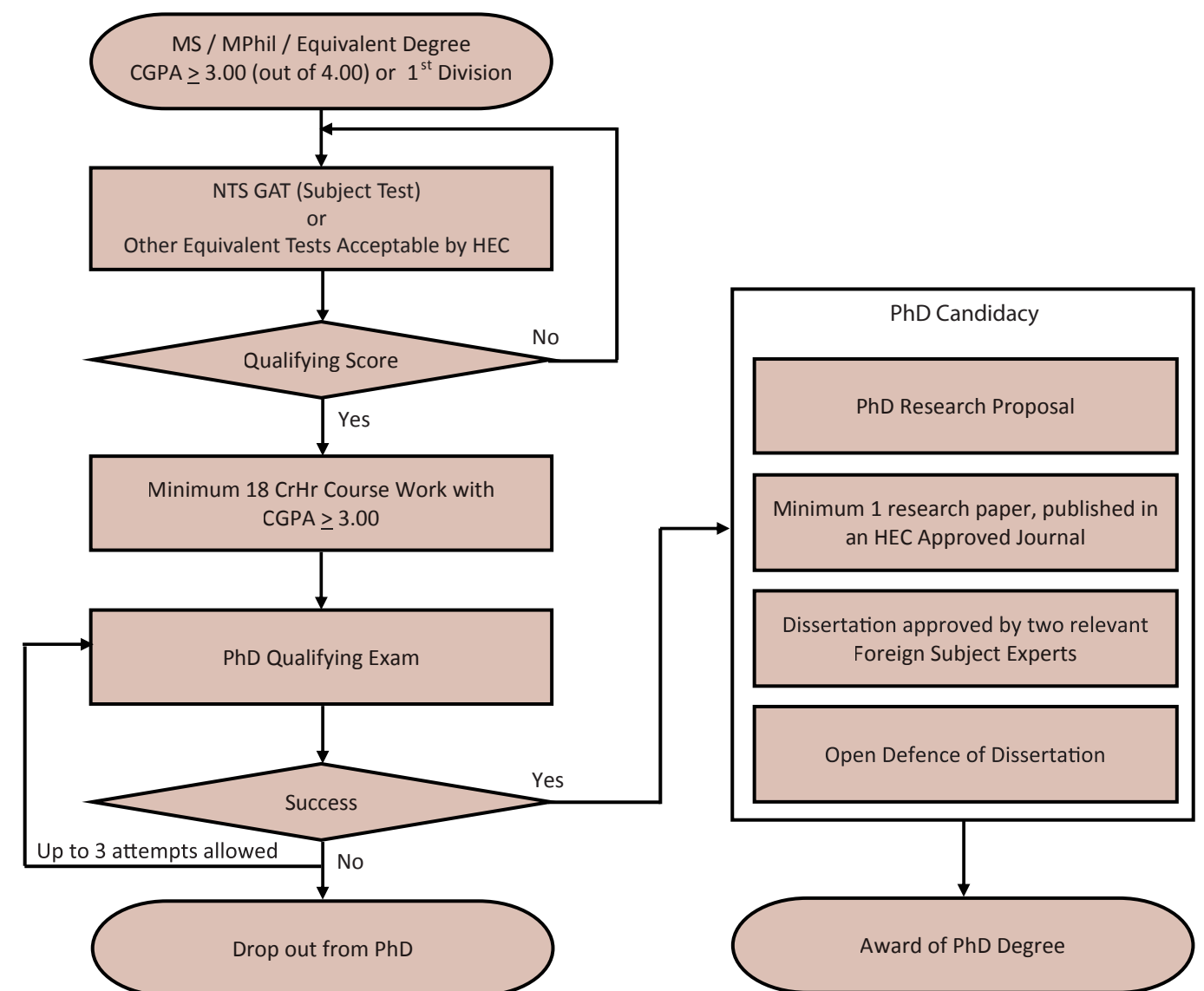


# Doctoral Programs

## PhD (MANAGEMENT SCIENCES)



## PhD Flow Chart



### Introduction

The Department of Management Sciences provides a productive and supportive atmosphere for postgraduate studies. The students receive in-depth research guidance, involving various research techniques, methods and approaches. The aim of the PhD program is to prepare students to conduct high level independent research which makes an original contribution to the body of knowledge in the field of Management Sciences. Students are mentored by HEC recognized supervisors to produce extraordinary research work.

### Eligibility

- Master's degree or equivalent with eighteen (18) years of education in Management Sciences or a closely related field of study with a minimum CGPA of 3.0 out of 4.0 in the semester system or 60% marks in the annual system; and
- NTS GAT Subject in Management Sciences with minimum cumulative score of 60% or other such equivalent tests acceptable as per HEC guidelines



# Doctoral Programs

## PhD (MECHANICAL ENGINEERING)



### Introduction

The Department of Mechanical Engineering offers a PhD program in line with DSU's general guidelines and policies as stated in DHA Suffa University's Academic Regulations and subject to fulfilling HEC's mandatory requirements for PhD programs.

### Eligibility

- Master's degree or equivalent with eighteen (18) years of education in Mechanical Engineering or a closely related field of study with a minimum CGPA of 3.0 out of 4.0 in the semester system or 60% marks in the annual system; and
- NTS GAT Subject in Mechanical Engineering with minimum cumulative score of 60% or other such equivalent tests acceptable as per HEC guidelines

### Elective Courses

Based on the available faculty and its teaching and research interests, PhD students can choose elective courses in the following four specializations:

1. Engineering Mechanics
2. Thermofluids
3. Materials and Manufacturing
4. Energy Systems and Technologies

The students are required to complete 48 credit hours of doctoral studies which include:

- Coursework: 18 Credit Hours
- Dissertation: 30 Credit Hours

The tentative list of Elective Courses for PhD (Mechanical Engineering) is the same as the Master's degree program.

# Doctoral Programs

## PhD (ELECTRICAL ENGINEERING)



### Introduction

The Department of Electrical Engineering offers a PhD program according to DSU's general guidelines and policies stated in DHA Suffa University's Academic Regulations and in accordance with the HEC mandatory requirements for PhD programs. The PhD program in Electrical Engineering prepares its graduates for careers in academia and industrial research.

### Eligibility

- Master's degree or equivalent with eighteen (18) years of education in Mechanical Engineering or a closely related field of study with a minimum CGPA of 3.0 out of 4.0 in the semester system or 60% marks in the annual system; and
- NTS GAT Subject in Mechanical Engineering with minimum cumulative score of 60% or other such equivalent tests acceptable as per HEC guidelines

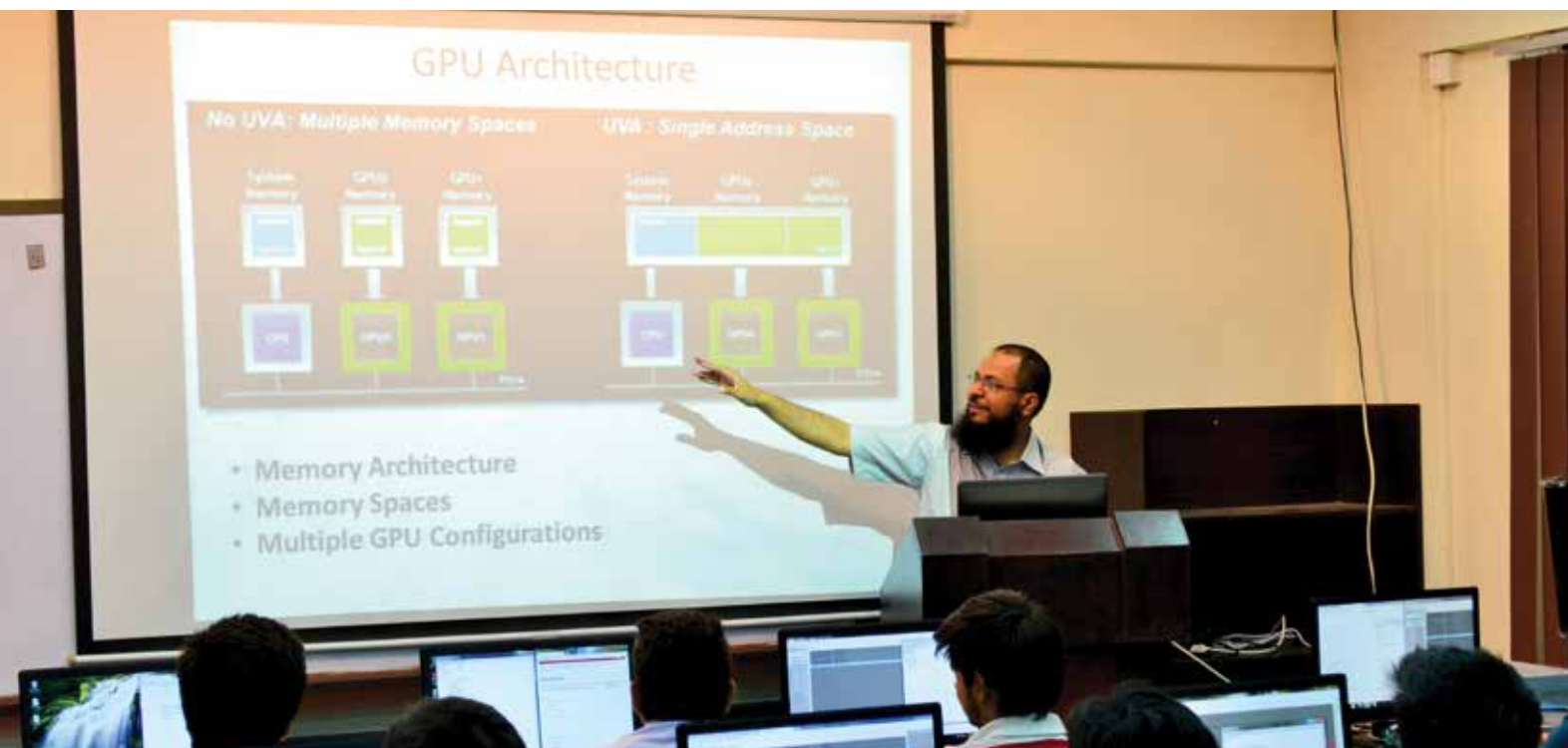
### Elective Courses

Based on the available faculty and its teaching and research interest, PhD students can choose elective courses from areas of Control Systems, Telecommunications, Electronics and Embedded Systems, Communication Systems and Networks and Power Systems. The tentative list of Elective Courses for PhD Electrical Engineering is given on page 83.



# Doctoral Programs

## PhD (COMPUTER SCIENCE)



### Introduction

The PhD in Computer Science program at DSU has been introduced for those who want to extend the universal horizon of knowledge and skills. The program is a combination of coursework and research which enables the students to create new knowledge, tools and paradigms. The coursework enables the students to acquire latest cutting edge knowledge and skills in their fields of interest. The research work enables the students to produce high quality research output for their thesis/dissertation.

In their dissertations, the students are encouraged to work for the improvement of society. Research fields available in the Department are: High Performance Computing, Ubiquitous Computing, Software Engineering, Information Management, Network & Information Security, Computer Graphics and Visualization, Bio-informatics and Big Data Analytics.

### Eligibility

- Masters degree or equivalent with eighteen (18) years of education in Computer Science or a closely related field of study with a minimum CGPA of 3.0 out of 4.0 in the semester system or 60% marks in the annual system; and
- NTS GAT Subject Test with minimum cumulative score of 60% or other such equivalent tests acceptable as per HEC guidelines

### Elective Courses

In our thematic PhD program, students can choose elective courses from areas of Software Engineering, Computer Networks and Information Security, High Performance Computing, Ubiquitous Computing, Computer Graphics and Visualization, Bio-Informatics, and Big Data Analytics. The courses are offered depending on the available faculty and their teaching and research interests. The tentative list of Elective Courses for PhD Computer Science is given on page 85.



## University Life Services and Support

To make the students' time at DSU as enjoyable and productive as possible, there is a range of services and support programs. DSU offers a safe, secure and smoke-free environment with campus-wide Wi-Fi connectivity.



## UNIVERSITY FACILITIES AND SUPPORT

### DSU Library

The campus has a well-stocked library and resource center with an extensive range of text and multimedia resources. The DSU library holds a rich collection of textbooks and reference books, local and foreign newspapers, magazines, journals and audio-visual material. DHA's well-known Defence Central Library (DCL) is also accessible to DSU students and faculty as an additional resource. Moreover, photocopying, printing, binding, scanning and internet services are also available.

### Stylish Cafeteria

The self service cafeteria at DSU offers a wide variety of food and snacks to students and staff in a hygienic and relaxing environment. It also acts as a hub for student interaction and activity.

### Separate Prayer Areas

DSU equally values the diversity of religious beliefs and convictions held by its students and staff. In an effort to facilitate students and staff, separate praying areas for men and women are provided.

### Executive Lecture Theater

A world class Executive Lecture Theater has been established. The theater holds an impressive ambiance with modern facilities to conduct seminars, conferences, workshops and training programs.

### DSU Auditorium and Conference Room

A state-of-the-art conference room and a spacious auditorium is available to students to organize seminars, conferences and other co-curricular activities at the campus.

### Transport

Transport facility is also available for DSU students commuting from different accessible points in the city. This service is provided by transporters contracted by the University.

### Sports Facilities

Students regularly utilize sports facilities available to them for basketball, volleyball, table tennis and other indoor games. Also, DSU frequently sponsors the participation of its students in inter-university sports and extra-curricular competitions.

### Common Room for Girls

A common room is provided for girls to relax or offer prayers.



## UNIVERSITY SERVICES

### Career Services & Corporate Relations

The prime objective of the Department of Career Services & Corporate Relations (CS & CR) is to assist the graduating students in job placements and enroll students in registering for corporate and industry internship programs. The CS & CR department works in close collaboration with the departments of Mechanical Engineering, Electrical Engineering, Computer Science and Management Sciences to ensure that students and graduates get connected with the right employer. The CS & CR department uses technology-based solutions to scan the right opportunities in the market and also focuses on cultivating deep relationships in the industry. This mechanism facilitates DSU graduates and students in matching their skills with the requirements of the job market.

The department of CS & CR enables DSU students and graduates to learn how to apply their academic knowledge and skills in the practical world. Student development programs such as Leadership Development Workshops, Mock Interviews and Employer Branding sessions are scheduled specifically to prepare students to best achieve their objective and be recruited by the organization of their choice. Other activities of the department include organizing Career Fairs, Recruitment Drives, Press Briefings and conducting Employer Surveys on a regular basis. As a result of the services offered by the department of CS & CR, DSU graduates are placed in some of the most prestigious organizations in the country and abroad.

### Academic Guidance

Academic guidance is important to familiarize the students with the current academic requirements to excel in their educational career. Although, our faculty members are willing to meet and help students according to their need, each class has been allocated an advisor to provide dedicated and specialized attention to students at an individual level. The students can contact the assigned advisor if they encounter any problem. Moreover, a female advisor has also been appointed to guide female students.



**Alumni Relations**

DHA Suffa University established its Office of Alumni Relations in the year 2018 as it recognizes and values the importance of maintaining ties with its graduates and involving them in the development of the University. The Alumni Relations Office provides invaluable services to its graduates, such as career guidance, access to learning services and resources, and variety of other facilities at DSU. These include life-long engagement through the Alumni Card, opportunities to be involved in activities such as public lectures, conferences, sports, industry linkages and staying connected to each other. Furthermore, this office aims to keep the Alumni informed about their Alma Mater through testimonials, the Alumni Directory and Alumni meet-ups by bringing them together, being of service to them and facilitating their involvement in the DSU community.

This office uses different media such as Facebook and LinkedIn to establish and maintain the essential elements of a successful Alumni program and also shares the available opportunities in the market that will help the Alumni to grow further in their professional careers. The Alumni Association is another aspect through which Alumni can register themselves and be elected for the organizing body of the DSU Alumni Association. The Alumni Card is yet another avenue which provides corporate discount offers to DSU graduates. Apart from these, this office also conducts Alumni Surveys on a regular basis to keep their database updated

**CODE OF CONDUCT FOR STUDENTS**

Students are expected to observe the following rules on the University premises, in the University administered places of other activities being held under the auspices of the University:

- Loyalty to Pakistan and refraining from doing anything which is repugnant to its honor and prestige in any way
- Respect for convictions and traditions of others in matters of religion, conscience and customs while observing own religious duties
- Truthfulness and honesty in dealing with other people, respect for elders and politeness to all
- Special respect for teachers and others in authority
- Cleanliness of body, mind, speech and habits
- Helpfulness to fellow human beings
- Devotion to studies and co-curricular activities; observance of thrift and protection of public property

The following acts are prohibited at DSU:

- Smoking on campus premises
- Consumption of alcoholic drinks or other intoxicating drugs
- Organizing or taking part in any function inside the campus or organizing any club or society of students except in accordance with the prescribed rules and regulations
- Collecting any money or receiving funds or pecuniary assistance for or on behalf of DSU, except with the written permission of the competent authority.

**EXAMINATIONS**

Effective Spring 2018, the University is following the relative grading system. The Grade Point Average is worked out by awarding letter grades on a scale of 4.0. Letter grades are awarded as per the following distribution:

Letter Grade	Grade Points
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.50
C	2.00
C-	1.67
D+	1.33
D	1.00
F	0.00
W	Withdrawn
I	Incomplete

**DRESS CODE**

The dress code at DSU is based on the general principles of decency and in conformity with the social norms of the country. The dress should not be indecent having provocative images or scripts. Female students are not expected to put on makeup or expensive jewelry.

**STUDENTS HANDBOOK**

For detailed information about DSU examination rules and policies, dress code and student code of conduct, students can refer to the DSU Student Handbook. Students are expected to strictly abide by the rules and regulations presented in the DSU Student Handbook.





# Scholarships and Fee Concessions

Scholarships are part of DSU's commitment to reward academic excellence and enabling students from all backgrounds to realize their potential.

DSU practices a need-blind policy and believes in merit as the sole criteria for admission to its programs. The Scholarships Award Committee (SAC) aims to select deserving students in order to assist them with their educational expenses. DSU awards three types of scholarships, namely:

- **Need-Based Scholarship**
- **Merit-Based Scholarship**
- **DHA Scholarship**

## Need-based Scholarships

These are awarded to students with financial constraints with good academic standing to help them continue their education at the University. Students must apply on the prescribed form by the closing date in the beginning of every semester if they wish to avail themselves of the Need-Based Scholarship. Form and guidance can be obtained from Admissions and Registration offices.

## Merit-Based Scholarships

These are awarded to academically outstanding students who have excelled in studies at the University.

## DHA Scholarship (For MBA Program Only)

DHA scholarship of upto 100% of the tuition fee on CGPA of 2.5/4.0 to 4.0/4.0 will be offered on pro-rata basis to existing undergraduate students of all programs within DSU to continue education at postgraduate level in the Department of Management Sciences. Also additional 50% concession is offered in the remaining tuition fee to the serving / retired Armed Forces personnel, DHA employees and their spouses and dependent children.

## Interest Free Loan from Ihsan Trust

DSU has also signed an MOU with M/S Ihsan Trust to facilitate needy students in getting interest-free loans from Ihsan Trust. Details can be obtained from Admissions and Registration offices.

## Fee Concessions

A concession of 50% in Tuition Fee is admissible to all regular faculty members, officers and employees of DHA and DSU for themselves, their spouses and their dependent children, subject to the condition that they compete with others at the time of admission and come in the merit list. Application for Fee Concession is processed through Scholarships Award Committee.

Fee concession continues subject to achieving a semester GPA of 2.0/4.0, otherwise Fee concession is withdrawn in the following semester and is restored in subsequent semesters only if the student succeeds in achieving a semester GPA of 2.0 or above.

Students must refer to the DSU Student Handbook for detailed rules pertaining to application and qualification for scholarships and fee concessions.





# Apply Now to Experience What DSU has to Offer

Students should contact DSU Admissions Office for all information related to programs, eligibility requirements, admissions schedule and fee details. The Admissions Officers can be contacted at:

**Admissions Officer**  
**Phone: 021-35244851- 52**  
**Cell: 0324 2444595**  
**Email: [info@dsu.edu.pk](mailto:info@dsu.edu.pk)**

## External Students

The University permits enrolment as an external student in any course being offered as part of any degree program, on payment of prescribed fee and meeting the eligibility criteria of the course, following the specified procedure. An external student will be issued a certificate on successful completion of the course. If such a student later enrolls in a degree program the credits earned as External Student may be used to satisfy the degree requirements provided he/she, if eligible, enrolls in the degree program within two years of earning the credit.

## Application Process

### 1 Check Eligibility

Check your eligibility through the DSU website, prospectus, program brochures or Admissions Office.

Candidates awaiting results are eligible to apply. All selected candidates shall be granted provisional admission on signing of an undertaking and subject to verification of the Board Results.

### 2 Apply Online

Visit [www.dsu.edu.pk](http://www.dsu.edu.pk). Fill and submit the Admission Application Form online.

Note: Students applying to study MS and Doctoral degree programs should directly email the relevant department at:

[info.me@dsu.edu.pk](mailto:info.me@dsu.edu.pk) (Mechanical Engineering)  
[info.ee@dsu.edu.pk](mailto:info.ee@dsu.edu.pk) (Electrical Engineering)  
[info.cs@dsu.edu.pk](mailto:info.cs@dsu.edu.pk) (Computer Science)  
[info.ms@dsu.edu.pk](mailto:info.ms@dsu.edu.pk) (Management Science)

OR  
[info@dsu.edu.pk](mailto:info@dsu.edu.pk) (Admissions Office)

### 3 Form Submission & Payment

Visit the Admissions Office at DSU and submit required educational documents and receive Admission Processing Fee Challan. Pay Entrance Test Fee at the University Accounts Office and collect Admit Card for entrance test from the Admissions Office.

Documents to be submitted for undergraduate and MBA programs include:

- Matric / O-Level Certificate and Marks Sheet / Statement
- Intermediate / HSSC / FSc / A-Level Marks Sheet / Statement and Certificates. In case of awaiting results, the marksheet of HSSC / FSc part I or AS-level
- Admit Card / Statement of Entry is required, if awaiting result
- Applicants with O-Level / A-Level must submit equivalence from IBCC
- A copy of CNIC or B-Form
- 8 passport-sized photographs with white background
- Bachelor's degree (for MBA program only)

For MS or PhD programs, download the application bundle from the DSU website and submit with required supporting documents to the DSU Admissions Office

#### OPTIONAL

Valid test score of NEDUET, NTS (NAT / GAT) or SAT, if appeared. Applicants who submit NEDUET, NTS (NAT / GAT / SAT-I / SAT-II test scores obtained within the last one year shall be exempted from taking DSU's Entrance Test

### 4 DHA Suffa University Entrance Test

Appear in DSU Entrance Test on the date notified by the Admissions Office.

Each eligible candidate may appear in DSU Entrance Test 3 times in order to improve his/her test score. The fee for each attempt is 1500/- PKR (non-refundable)

### 5 Await Admission Offer

Assessment of your application requires 1-2 weeks.

If additional documents are required to assess your application, they will be requested from you.

### 6 Acceptance of Offer

If offered Admission, collect provisional Offer Letter and Fee Challan from the Admission Office.

Read your Offer Letter carefully, ensuring your name, program title and semester are accurate.

Meet all pre-requisites mentioned in your Offer Letter. Deposit prescribed fee to the Accounts Office at DHA Suffa University through a pay order in the name of '**DHA SUFFA UNIVERSITY**'.

Submit a photocopy of the payment receipt to the Admissions Office at **DHA Suffa University**.





# FEE STRUCTURE 2018-19

Amount in PKR

Program	One Time Charges		Per Semester			
	Admission Fee	Caution Money (Refundable)	IT Charges	Misc. Charges	Tuition Fee (Per Credit Hour)	Lab Charges (Per Credit Hour)
BE (Mechanical)	15,000	10,000	4,500	5,500	12,000	4,500
BE (Electrical)	15,000	10,000	4,500	5,500	9,000	4,500
BS (Computer Science)	15,000	10,000	4,500	5,500	10,000	4,500
BBA	15,000	10,000	4,500	5,500	-	4,500
MBA	15,000	10,000	4,500	5,500	-	4,500
MS	15,000	10,000	4,500	5,500	-	4,500
Ph.D	15,000	10,000	4,500	5,500	-	4,500

Program	1st Semester Fee Amount	New ME Lab Setup Advance	Total Amount	Credit Hours 1st Semester
BE (Mechanical)	141,500	350,000	491,500	13+4
BE (Electrical)	129,500	-	129,500	15+3
BS (Computer Science)	118,000	-	118,000	14+2
BBA	116,000	-	116,000	18+0
MBA 3.5 Yrs.	102,500	-	102,500	15+0
MBA 2 Yrs.	102,500	-	102,500	15+0
MBA 1.5 Yrs.	89,000	-	89,000	12+0
MS	75,500	-	75,500	9+0
Ph.D	75,500	-	75,500	9+0

Semester-wise No. of Credit Hours

Semester	BBA		BS (CS)		BE (EE)		BE (ME)	
	Theory Cr. Hr.	Lab Cr. Hr.	Theory Cr. Hr.	Lab Cr. Hr.	Theory Cr. Hr.	Lab Cr. Hr.	Theory Cr. Hr.	Lab Cr. Hr.
I	18	-	14	2	15	3	13	4
II	18	-	14	3	14	3	14	3
III	18	-	16	2	15	3	15	3
IV	18	-	15	2	15	3	15	3
V	18	-	18	-	15	3	15	3
VI	18	-	18	-	15	3	15	
VII	15	-	19	-	13	4	13	4
VIII	15	-	13	-	11	4	11	4

## Notes:

- The University reserves the right to change fee/charges on yearly basis.
- New ME Lab Setup Advance of Rs. 350,000/- will be charged upon admission in BE(Mechanical) program. This will be adjusted equally in all the subsequent semesters (Semester 2 to Semester 8)
- Advance Tax (under section 236-I) shall be collected @ 5% on the entire amount of fee (if the student's payable fee exceeds Rs. 200,000/- per annum, excluding the amount refundable).  
<http://download1.fbr.gov.pk/Docs/201372214742171992013CIRCULAR06.pdf>



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**DHA SUFFA UNIVERSITY**



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



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[/dsu\\_official](https://www.instagram.com/dsu_official)

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