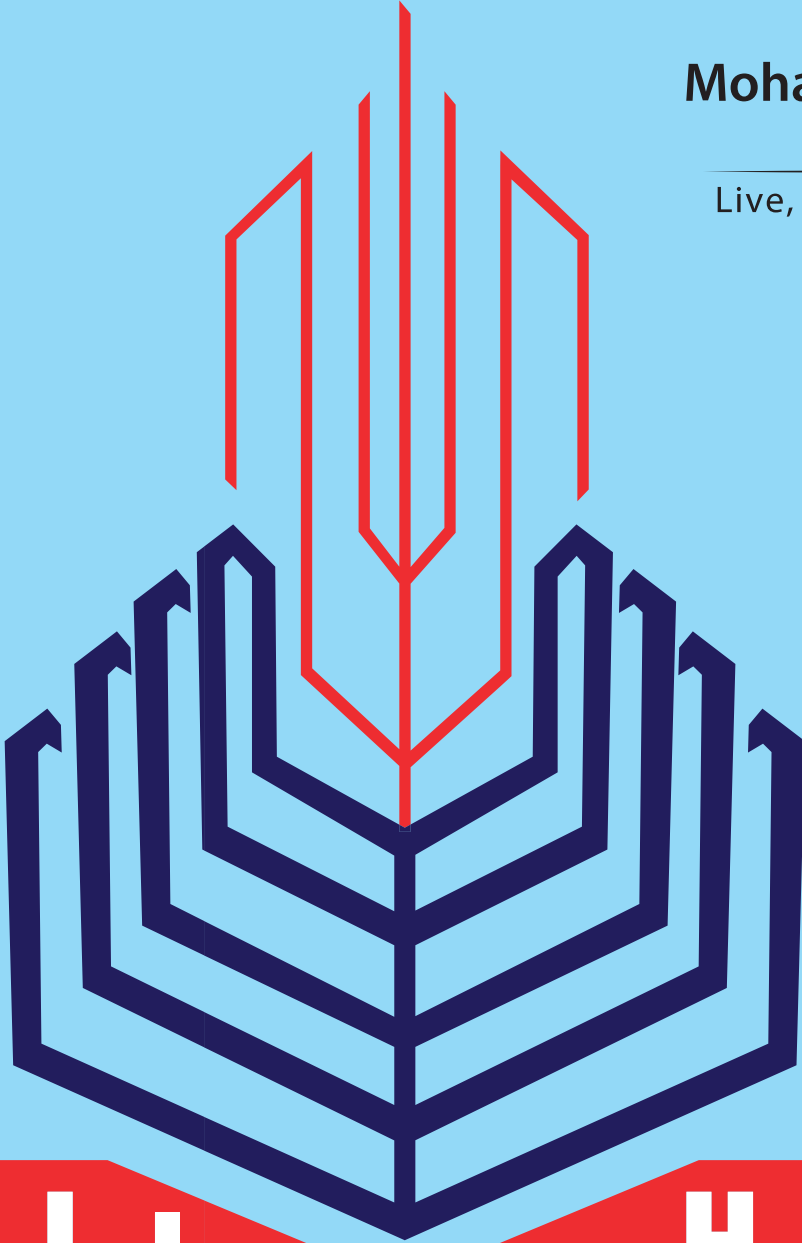




Mohammad Ali Jinnah University

Live, Learn and Be Inspired



J I N N A H

**UNDERGRADUATE
PROSPECTUS 2019**

Vision

To be recognized as a leading institute for producing competent professionals who are instrumental in the development of a prosperous society.

Mission

Mohammad Ali Jinnah University, through the pursuit of excellence in an ethical environment, is committed to providing a diverse student population the intellectual and technological tools necessary to meet the challenges of the future.

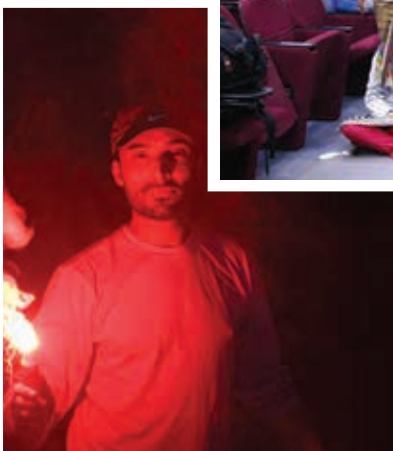
Core Values

The core values of Mohammad Ali Jinnah University revolve around three dimensions envisioned by the President of the university; Live, Learn and Be Inspired.

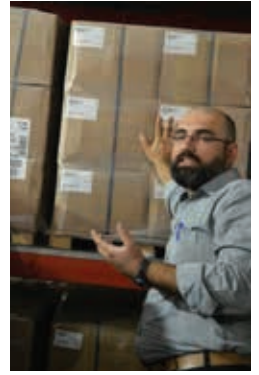
Student Affairs



The students of Mohammad Ali Jinnah University won first prize in Inter University Theater Competition held at PACC in 2019.



Industry Visits



Students Life



Picnic



Events



National and International Tours



Career Counseling

Mohammad Ali Jinnah University puts the utmost emphasis on career counseling of students during their tenure at the university and arranges workshops and counseling sessions to help students find the spark within themselves and drive their talents in the direction where they can perform their best. The university does not restrict its students to a conventional job seeking mindset but encourages them to follow and practice their passion in any field by giving them public platforms like “MAJU Got Talent” and “MAJU Talent Hunt” where they can exhibit any kind of talent from singing to martial arts and beyond. This encourages them to employ their knowledge and skills learned at the university in their field of interest and inevitably excel in that field.



Psychological Wellbeing

Mental wellbeing is considered a top priority at Mohammad Ali Jinnah University, and to facilitate with this the MAJU Wellness Center has been established. This is intended to be a safe space for teachers, staff and students, who require support in their personal, social and professional lives. The goal is to provide the members of Mohammad Ali Jinnah University with a platform where they can seek the required guidance in order to enhance their mental health and development. Counselling professionals aim to create awareness and reduce the stigma attached with mental wellbeing. In addition, the purpose is to focus on helping students and faculty members become self-aware and to promote good health and positivity, that will assist in creating a better environment for learning.



Scholarships

FEE STRUCTURE - FALL 2019

Admission Fee (Payable once at the time of admission - Non Refundable, Non Transferrable)	Rs. 15,000/-		
Tuition Fee (Per Credit Hour)	FoBA & SS	FoC&E	FoLS
Bachelor Programs	Rs. 4,250/-	Rs. 4,750/-	Rs. 4,750/-
Master Programs	Rs. 4,500/-	Rs. 5,000/-	Rs. 5,000/-
PhD Programs	Rs. 7,000/-		

SCHOLARSHIP & FINANCIAL ASSISTANCE POLICY

For Bachelors Programs	Criteria		Scholarship (In Tuition Fee)
	A Level Grades	Intermediate (in %)	
Merit scholarships on Intermediate marks for all Bachelors Programs	3 As OR 2 As and 1 B	80% or Above	100%
	1 A and 2 Bs OR 3 Bs OR 1 A, 1B and 1C	75% to 79.9%	75%
	1 A and 2 Cs OR 2 Bs and 1 C OR 1 B and 2 Cs	70% to 74.9%	50%
For Masters Programs Merit scholarships on Undergraduate Grades for all Masters Programs		Criteria	Scholarship (In Tuition Fee)
		80% or Above	50%
		70% to 79.9%	25%

Subsequent continuation of scholarship is subjected to semester based academic performance AND on taking full course load without any interruption of studies.

Academic Performance (Semester-Based) Scholarship Academic Performance (Semester Based) Scholarship (Not for MCS, MS and Ph.D programs)	Criteria	Scholarship (In Tuition Fee)
	4.00 GPA	100%
	3.9 to 3.99 GPA 3.75 to 3.89 GPA	50% 25%
Scholarship for Professional Bodies (ICMAP, ACCA, PIPFA) For Professional Bodies Members / Students	Scholarship (In Admission Fee)	Scholarship (In Tuition Fee)
	33%	10%
Scholarship For World Memon Organization For World Memon Organization - WMO Sponsored Student	Scholarship (In Admission Fee)	Scholarship (In Tuition Fee)
	100%	20%
Scholarship for SBT Students (Organization signed MoU with MAJU)	Scholarship (In Admission Fee)	Scholarship (In Tuition Fee)
	75%	25%
Scholarship to MAJU Alumnus	Scholarship (In Admission Fee)	Scholarship (In Tuition Fee)
	100%	25%
Scholarship to PGC Students/ Alumni and Allied Schools Alumni		Scholarship (In Tuition Fee)
		25%
Scholarship on Kinship (Only senior real brother or sister will be eligible for this scholarship, further they must be registered in a same semester.		Scholarship (In Tuition Fee)
		25%
Need cum Merit based Scholarship	For All Bachelors Programs, MCS and MS(PM) only.	Required evidence(s) and eligibility criteria is mentioned on application form. Scholarship is subject to approval of Financial Aid Committee.
Scholarship Grants from Industry		

- All scholarships are available on taking of full load. If a student drop any course then he will not be eligible for scholarship.
- The fee is subject to revision based on annual inflation rates.
- All scholarships are available subject to maintaining of minimum CGPA required to get degree.
- Two Scholarships cannot be availed at a time. If a student is eligible for more than one scholarship/waiver then student has the right to opt any one of scholarships/waivers only.

Programs

Programs	Credit.Hrs	Eligibility Criteria
BBA	136	Intermediate / A Levels or equivalent qualification with minimum 45%
BS (Accounting & Finance)	132	
BS (Marketing)	135	
BS (Psychology)	130	
BS (Biosciences)	133	Intermediate / A Levels (Science) or equivalent qualification with minimum 45%
BS (Computer Science)	131	Intermediate / A Levels (Science) or equivalent qualification Mathematics ⁽¹⁾ with minimum 50%
BS (Software Engineering)	131	
B.E (Electrical Engineering)	136	Intermediate / A Levels (Pre-Engineering) with minimum 60%
B.E (Computer Systems Engineering)	135	Intermediate / A Levels (Pre-Engineering or Computer Science) with minimum 60%

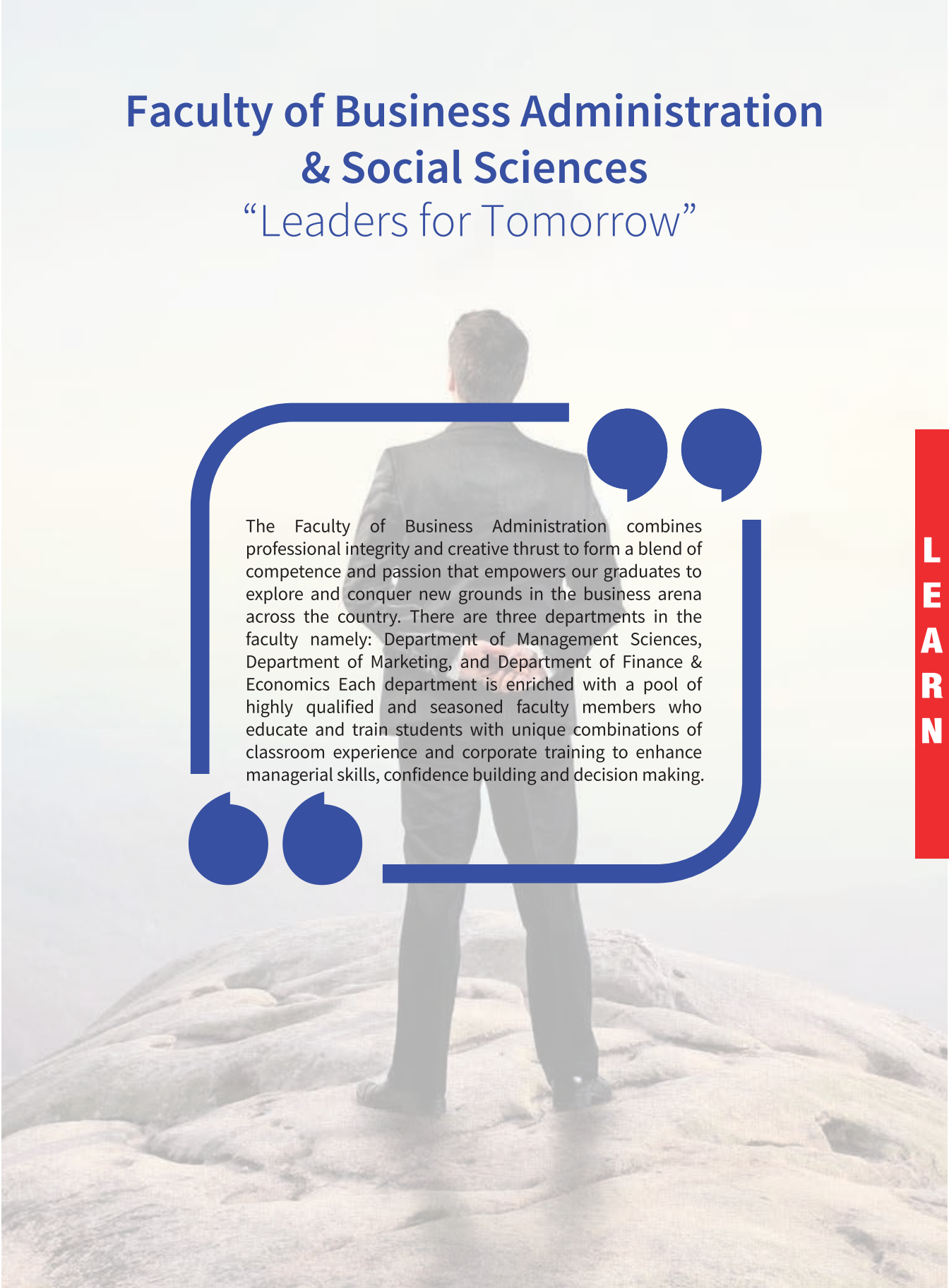
(1) Those who did not take Mathematics in Intermediate Examination will be required to take Remedial Mathematics Course.

(2) All Programs are of 4 years duration.

(3) Students must complete an Internship arranged by the department for the awarded of degree.

Faculty of Business Administration & Social Sciences

“Leaders for Tomorrow”



The Faculty of Business Administration combines professional integrity and creative thrust to form a blend of competence and passion that empowers our graduates to explore and conquer new grounds in the business arena across the country. There are three departments in the faculty namely: Department of Management Sciences, Department of Marketing, and Department of Finance & Economics Each department is enriched with a pool of highly qualified and seasoned faculty members who educate and train students with unique combinations of classroom experience and corporate training to enhance managerial skills, confidence building and decision making.

BBA

Bachelor of Business Administration

BBA Program

Bachelor of Business Administration is a four year program designed to provide extensive knowledge of management concepts to students and develop their critical thinking skills, which are required to address diverse business challenges and emerging opportunities in the field of Business Administration. Equipped with the right tools, the program prepares students to begin their careers locally or internationally. The program is specially designed to meet industry requirements in a changing global corporate environment.

Plan of Study BBA

Semester-I

Business Mathematics
Freshman English
Foreign Language
Microeconomics
Principles of Accounting I
Principles of Management

Semester-II

Business Statistics
English Grammar
Computer Concepts & Applications
Pakistan Studies
Islamic Studies/Ethics
Principles of Accounting II

Semester-III

Corporate Social Responsibility
Macroeconomics
Cost & Management Accounting
Oral Communication
Principles of Psychology
Money and Banking

Semester-IV

Development Economics
Principles of Sociology
Introduction to Logic
Business & Corporate Law
International Relations & Current Affairs

Semester-V

Business Communication
Supply Chain Management
Business Analytics
Principles of Marketing
Introduction to Business Finance
Human Resource Management

Semester-VI

Organizational Behavior
Marketing Management
Statistical Inference
Consumer Behavior
Specialization I
Entrepreneurship

Semester-VII

Financial Management
Business Research Methods
Strategic Management
Specialization II
Specialization III
Specialization IV

Semester-VIII

Interpersonal Communication Skills
Specialization V
Specialization VI
Specialization VII
Business Project

Specialization Streams

- ▶ Finance
- ▶ Marketing
- ▶ General Management
- ▶ Supply Chain Management
- ▶ Business Informatics

BS

Accounting & Finance

BS Accounting & Finance Program

Bachelor of Science in Accounting and Finance is a four year program, designed to develop understanding of complex Accounting procedures and Financial Planning concepts which are required for Financial Management of organizations. Students in this program will exhibit understanding of broad financial concepts along with general management principles. The program is aimed for students who wish to acquire career-oriented, market-driven education in the field of Accounting and Finance. Students will gain an understanding of the legal, ethical and regulatory obligations of their work and will be able to solve issues in a logical manner. They will learn the concepts and processes needed to protect, validate and attest to the integrity and reliability of financial information. BS(AF) has an accredited of professional bodies including ACCA, ICAP and ICMAP on completion of the program, students will be able to get exemptions in a number of papers.

Plan of Study BS (Accounting & Finance)

Semester-I	Semester-II
Business Mathematics Freshman English Computer Concept & Applications Microeconomics Principles of Accounting I Principles of Management	Business Statistics English Grammar Foreign Language Business Analytics Macroeconomics Principles of Accounting II
Semester-III	Semester-IV
Islamic Studies/Ethics Cost & Management Accounting Oral Communication Principles of Marketing Principles of Psychology Audit & Assurance	Business & Corporate Law Business Communication Introduction to Business Finance Marketing Management Pakistan Studies Statistical Inference
Semester-V	Semester-VI
Financial Management Islamic Banking Finance Specialization-I Financial Reporting Accounting Specialization-I	Corporate Finance Finance Specialization-II Accounting Specialization-II Strategic Management Advanced Managerial Accounting
Semester-VII	Semester-VIII
Business Research Methods Finance Specialization-III Laws of Taxation Accounting Specialization-III Accounting Specialization-IV	Finance Specialization-IV Finance Specialization-V Financial Modeling Accounting Specialization-V Business Project

List of Elective Courses

Accounting Courses	Finance Courses
<ul style="list-style-type: none"> ▸ Analysis of Financial Statements ▸ Corporate Reporting ▸ Advanced Taxation ▸ Advanced Audit & Assurance ▸ Corporate Laws ▸ Governance, Risk and Ethics ▸ Advanced Financial Reporting ▸ Computerized Accounting System ▸ Performance Management ▸ Advanced Financial Accounting 	<ul style="list-style-type: none"> ▸ International Banking ▸ Investment Banking ▸ Retail Banking ▸ Money & Banking ▸ Treasury and Fund Management ▸ Portfolio Management ▸ International Finance ▸ Islamic Financial System ▸ Financial Risk Management ▸ E-Financials

BS Marketing

BS Marketing Program

Marketing is an exceptionally broad field encompassing a wide range of business activities and can be applied to almost every occupational field. In the 21st century, every firm needs marketing people to discover, measure and analyze markets; develop and manage products and services; manage storage and distribution; create and manage advertising, promotion and sales; design rational pricing policies; and maintain positive customer relations.

The marketing field encompasses activities related to: identifying needs of prospective customers, selecting a target market, designing a product, packaging, pricing, advertising, selling, distributing, and servicing products in both domestic and international markets. It is the driving force in business.

The BS Marketing program has been designed for candidates having 12-years education who plan to adopt Marketing as a career and wish to enhance their business and marketing skills. The program is expected to provide opportunities to the students to learn variety of marketing techniques used in the challenging business world.

Plan of Study BS (Marketing)

Semester-I

Business Mathematics
Freshman English
Computer Concepts & Applications
Microeconomics
Contemporary Marketing
Principles of Management

Semester-II

Business Statistics
English Grammar
Financial Accounting
Business Analytics
Macroeconomics
Principles of Marketing

Semester-III

Islamic Studies/Ethics
Cost & Management Accounting
Business Communication
Foreign Language
Principles of Psychology
Marketing Management

Semester-IV

Operations Management
Public Relations
Introduction to Business Finance
Consumer Behavior
Pakistan Studies
Statistical Inference

Semester-V

Financial Management
Entrepreneurship
International Business
Sales Management
Brand Management
Business & Corporate Laws

Semester-VI

Human Resource Management
Specialization I
Advertising
Strategic Management
Environmental Sciences

Semester-VII

Interpersonal Communication Skills
Business Research Methods
Customer Relationship Management
Specialization II
Oral Communication

Semester-VIII

Strategic Negotiations
Specialization III
Specialization IV
Specialization V
Business Project

Specialization Streams

- Digital Marketing
- Brand Management
- Advertising & Communication Design
- International Marketing

BS Psychology

BS Psychology Program

The Bachelor's in Psychology program is drafted to cater to individuals interested in mental health and its many dimensions. With focus ranging from interpersonal relationships, psychological disorders and therapy, and the wiring of the brain, students learn all about the mind and its impact on human behaviour. With a lab component in each semester, practical learning facilitates students in deep understanding of psychological testing and experiments. Through meaningful classroom discourse students are taught the intricacies of individual differences, and the cultural significance of psychological practices. The goal is to produce a skilled professional who is self-aware, confident and motivated to break the barriers surrounding mental health in Pakistan

Plan of Study BS Psychology (Tentative)

Semester-I

English-I (Functional English)
Introduction to Computing
Business Economics
Pakistan Studies
Social Psychology
Introduction to Psychology

Semester-II

English-II (Communication Skills)
Islamic Studies / Ethics
Industrial Economics
Principles of Marketing
Sociology
History and Schools of Psychology

Semester-III

English-III (Technical Communication Skills)
Mathematics
Fundamental of Biology
Abnormal Psychology
Experimental Psychology Lab
Personality Theories-I

Semester-IV

Principles of Management
Spiritual Psychology
Health Psychology
Technical Report Writing
Personality Theories-II
Psychology Practicum

Semester-V

Mental Health and Psycho-pathology-I
Neurological Basis of Behavior
Psychological Testing-I
Research Methods
Statistics
Cognitive Psychology

Semester-VI

Mental Health and Psycho-pathology-II
Clinical Psychology (DSM)
Psychological Testing-II
Business Analytics
Statistical tools for Social Sciences (SPSS)

Semester-VII

Internship-I
Research Project-I
Assessment and Practicum/ Testing lab
Elective-I
Elective-II
Elective-III

Semester-VIII

Internship-II
Research Project-II
Assessment and Practicum/ Testing lab
Elective-IV
Elective-V
Elective-VI

Specialization Streams

Clinical

- ▶ Physiology
- ▶ Clinical Psychology
- ▶ Counseling and therapy
- ▶ Pharmacology and Neurosciences
- ▶ Clinical Psychology -II
- ▶ Child Counseling

Industrial/Organizational

- ▶ Organizational Psychology
- ▶ Consumer Behavior
- ▶ Human Resource Management
- ▶ Organizational Psychology-II
- ▶ Psychology of Leadership
- ▶ Group Dynamic/counseling

Educational

- ▶ Educational Psychology
- ▶ Behavior Modification
- ▶ Children with special needs
- ▶ Educational Psychology -II
- ▶ School Management
- ▶ Counseling

Faculty of Life Sciences

Life is Beautiful

The vision of the Faculty of Life Sciences at MAJU is to train high quality human resource in applied biological sciences including molecular biology, biotechnology, pharmacy, medicine and agriculture. The faculty delivers quality teaching and research in key areas of life sciences. The faculty promotes collaboration in teaching and research with other organizations nationally and internationally. The faculty trains students in biotechnological processes especially recombinant DNA technology, bioinformatics, Agricultural sciences, Biopharmaceuticals etc. The objective is to prepare students to address major problems faced by Pakistan including development of indigenous medicine, precision medicine, environmental-friendly fertilizer development, provision of health services, and provision of adequate food supplies to name a few.

BS Biosciences

BS Biosciences Program

The department of Biosciences at MAJU is offering undergraduate and postgraduate programs in diverse areas of biological science. These programs are aimed to provide a composite set of fundamental knowledge and cutting-edge skills of modern medical, pharmaceutical, agricultural science and biotechnology. Upon completion of the program, the graduates with BS Biosciences degree will be able to join R&D organizations in the fields of pharmaceuticals, diagnostics, healthcare management, academics, food and dairy industry, forestry and environment protection agencies etc.

Plan of Study BS (Biosciences)

Semester-I

Organic Chemistry
Cell Biology
English-I (Functional English)
Pakistan Studies
Introduction to Computing
Biology-I/Maths-I

Semester-II

Microbiology
Biochemistry-I
Physical Chemistry
English-II (Communication Skills)
Islamic Studies
Maths-II (Basic Calculus)

Semester-III

Biochemistry-II
Classical Genetics
Molecular Biology
English -III (Technical Report writing)
Introduction to Programming
Social Sciences Elective-I

Semester-IV

Genetic Engineering
Human Physiology
Introduction to Biotechnology
Analytical Chemistry and Instrumentation
Probability and Statistics
Social Sciences Elective-II

Semester-V

Methods in Molecular Biology
Bioinformatics-I
Clinical Microbiology and Immunology
Virology-I
Endocrinology
Genomics

Semester-VI

Bioinformatics-II
Principles of Biochemical Engineering
Agriculture Biotechnology
Research Methodology
Proteomics
Pharmacology

Semester-VII

Biophysics
Health Biotechnology
Elective-I
Elective-II
Final Year Project-I

Semester-VIII

Final Year Project-II
Bio-Safety and Bio-Ethics
Environmental Biotechnology
Elective-III
Elective-IV
Seminar

Elective Courses*

- ▶ Virology II
- ▶ Cell and Tissue Culture
- ▶ Pharmaceutical Biotechnology
- ▶ Plant Tissue Culture
- ▶ System Biology
- ▶ Structure Based Drug Designing
- ▶ Structural Bioinformatics
- ▶ Enzyme Technology
- ▶ Food Biotechnology
- ▶ Neuropharmacology

*The list is non-exhaustive and more courses will be offered as per market need.

Lab Facilities

Microbiology



Genetic Engineering



Molecular Biology



Biochemistry



Biotechnology



Analytical Chemistry



Career Opportunities

The beauty of BS Biosciences program is its “Integration and Diversity” due to which the graduates can opt Careers in a variety of organizations including:

- ◆ Academia
- ◆ Administration in Health Services
- ◆ Agri-Business and Fertilizer Sector
- ◆ Business Development
- ◆ Bio-pharmaceuticals R&D
- ◆ Manufacturing and Sales
- ◆ Clinical Research and Hospitals
- ◆ Research Organizations
- ◆ Diagnostics
- ◆ Environmental Protection and Monitoring Agencies
- ◆ Epidemiology
- ◆ Food Industry
- ◆ Healthcare Information Workers
- ◆ Consultant firms for NGOs
- ◆ Policy Making Bodies Organizations Working in Tropical Disease Research

Faculty of Computing and Engineering

Where Imagination Meets Reality

The Faculty of Computing & Engineering aims at producing professionals who can meet the challenges of emerging international trends in engineering, information technology, computing and related disciplines. To achieve this objective, we have a team of highly qualified and dedicated faculty members. We believe that academic excellence is not possible without a quality research environment. Strong emphasis is, therefore, placed on research. In addition to providing strong theoretical foundations, our academic programs also place due emphasis on the applied aspects of the disciplines. For this purpose, the faculty has established a strong liaison with Research & Development organizations and the industry. The Faculty comprises of three departments: Department of Computer Science, Department of Electrical Engineering and Department of Computer Systems Engineering. The faculty has a large number of labs fulfilling the requirements of all of our programs. We have extensive alumni network who are already working in respectable positions across all industries in Pakistan and thus paying its due share towards national growth.

BS Computer Science

BS Computer Science Program

The Computer Science field is one of the fastest growing and highest paying career paths, which has revolutionized business organizations and has altered business models to the new apex of dealing with the world. The CS degree program focuses on various mathematical and analytical models along with cutting-edge computational skills. The program is focused on developing a thorough understanding of both the theoretical and practical aspects of Computer Science, through rigorous course work over a period of four years. The modes of learning include: case studies, hands on learning, lab tasks, projects, presentations, group discussions, and role plays. The goal is to produce an individual with competent skills for problem solving, who can engage in continuing his/her professional development.

Plan of Study BS (Computer Science)

Semester-I

Introduction to Computing
Introduction to Computing Lab
Computer Programming
Computer Programming Lab
Freshman English
Calculus and Analytical Geometry
Islamic Studies OR Ethics

Semester-II

Object Oriented Programming
Object Oriented Programming Lab
Applied Physics
Oral Communications
Probability and Statistics
Discrete Structures

Semester-III

Data Structure & Algorithms
Data Structure & Algorithms Lab
Digital Logic Design
Digital Logic Design Lab
Differential Equations
Technical Report Writing
Operations Research

Semester-IV

Database Management Systems
Database Management Systems Lab
Computer Organization and Assembly Language
Computer Organization and Assembly Language Lab
Theory of Automata
Linear Algebra
Object Oriented Analysis and Design
Object Oriented Analysis and Design Lab

Semester-V

Data Communications & Networking
Data Communications & Networking Lab
Design and Analysis of Algorithms
Operating Systems
Operating Systems Lab
Software Engineering
Management Elective-I

Semester-VI

Parallel and Distributed Computing
Artificial Intelligence
Artificial Intelligence Lab
Human Computer Interaction
Social Science Elective-I
Compiler Construction

Semester-VII

Information & Network Security
CS Elective-I
CS Elective-II
Numerical Computing
Final Year Project-I
Social Science Elective-II

Semester-VIII

Professional Issues in Computing
Final Year Project-II
Management Elective-II
CS Elective-III
Pakistan Studies

BS

Software Engineering

BS Software Engineering Program

The Software Engineering undergraduate program is designed to equip students with theoretical and technical knowledge of software development, which draws on the principles of the engineering model, for all aspects of software production. A wide range of courses is designed and taught in a practical way. The innovative teaching Methodology ensures that students exercise all the learned concepts on our grounds, so that they get to face real issues and learn to solve arising problems efficiently. The degree program comprises of rigorous course work over a period of four years including case studies, hands on learning, lab tasks, projects, presentations, group discussions, and role plays. The outcome is to create skilled individuals with the expertise to use the latest software development methodologies and best practices to pursue a career in any area of the software industry.

Plan of Study BS (Software Engineering)

Semester-I

Introduction to Computing
Introduction to Computing Lab
Computer Programming
Computer Programming Lab
Freshman English
Calculus and Analytical Geometry
Islamic Studies OR Ethics

Semester-II

Object Oriented Programming
Object Oriented Programming Lab
Applied Physics
Oral Communications
Probability and Statistics
Discrete Structures

Semester-III

Data Structure & Algorithms
Data Structure & Algorithms Lab
Software Engineering
Management Elective-I
Social Science Elective-I
Web Engineering

Semester-IV

Database Management Systems
Database Management Systems Lab
Operations Research
SE Elective-I
Linear Algebra
Object Oriented Analysis and Design
Object Oriented Analysis and Design Lab

Semester-V

Data Communications & Networking
Data Communications & Networking Lab
Operating Systems
Operating Systems Lab
Software Requirement Engineering
Software Construction and Development
SE Elective-II

Semester-VI

SE Elective-III
Human Computer Interaction
Software Project Management
Social Science Elective-II
Technical Report Writing
Software Architecture
Software Architecture Lab

Semester-VII

Software Testing
SE Elective-IV
Formal Methods
Final Year Project-I
Information and Network Security

Semester-VIII

SE Elective-IV
Pakistan Studies
Software Re-engineering
Professional Issues in Computing
Management Elective-II
Final Year Project-II

Lab Facilities

Programming & Simulation Lab



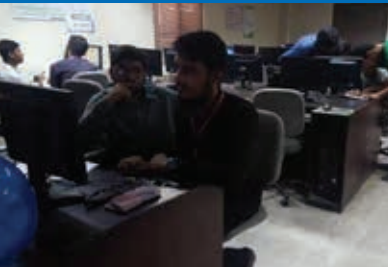
System Lab



General Computing Lab



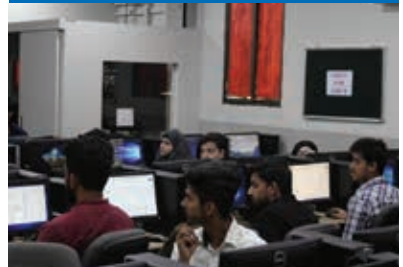
Database Management System Lab



Software Engineering Lab



Introduction to Computing Lab



Career Opportunities

- ◆ Software Design Engineers
- ◆ Software Project Managers
- ◆ Software Quality Engineers
- ◆ Software Architects
- ◆ Software Consultants
- ◆ Business Analysts
- ◆ Data Architect
- ◆ Data Scientist
- ◆ Network Administrator
- ◆ Database Administrator
- ◆ Information System Audit
- ◆ Web Engineer
- ◆ Finance Analyst
- ◆ Programmer
- ◆ Techno-Entrepreneur
- ◆ Allegorist
- ◆ Academician
- ◆ Researcher

Our Employers

- ◆ Microsoft
- ◆ Unilever Pakistan
- ◆ SAP
- ◆ TRG
- ◆ IBM
- ◆ Folio3
- ◆ Contour Software
- ◆ Netsol Technologies
- ◆ Jasper Technologies
- ◆ Avanza Solution
- ◆ K-Electric
- ◆ CDC Pakistan
- ◆ Samaa TV
- ◆ Dell Corporation
- ◆ Centegy Technology
- ◆ ARY Digital
- ◆ Taj Engineering Company
- ◆ Habib Bank
- ◆ Lekson Investment
- ◆ Geo TV Network
- ◆ Viftech

B.E

Electrical Engineering

B.E Electrical Engineering

The B.E (Electrical) program at Department of Electrical Engineering will fulfill the vision and mission of the University by producing graduates who will be leaders in industry or academia by demonstrating their knowledge along with technical and managerial skills for the benefit of society and natural environments coupled with exhibiting quest for learning and initiative by continuously broadening their abilities and enhancing their technical skills to maintain their relevance with technological change and demonstrate commitment to ethical practices, community service and societal contribution.

Plan of Study B.E (Electrical Engineering)

Semester-I

English I (Comprehension)
Engineering Calculus I
Engineering Physics
Computing Fundamentals
Linear Circuit Analysis I
Pakistan Studies

Semester-II

Engineering Calculus II
English II (Communication)
Programming Fundamentals
Fundamentals of Electronics
Digital Logic Fundamentals
Electrical Engineering Workshop

Semester-III

Linear Algebra and Differential Equations
Object-oriented Programming and Data Structures
Electronic Circuit Design
Linear Circuit Analysis II
Engineering Mechanics
Engineering Drawing

Semester-IV

Engineering Calculus III
Instrumentation and Measurement
Signals and Systems
Microprocessor-based Systems
Engineering Economics

Semester-V

Electromagnetic Fields
Electrical Machines
Linear Control Systems
Probability Methods in Engineering
Environmental Engineering

Semester-VI

Technical Writing
Engineering Project Management
Communication Systems
Power Electronics
Digital Signal Processing

Semester-VII

Senior Design Project I
Numerical Methods
Professional and Social Ethics
Power System Analysis
Depth Elective I

Semester-VIII

Senior Design Project II
Sociology for Engineers
Islamic Studies/Ethics
Power Systems Transmission, Distribution & Utilization
Depth Elective II

Elective Courses

- Industrial Control and Automation
- FPGA-Based System Design
- Computer Communication Networks
- Digital Image Processing
- Robotics
- Embedded System Design
- Electrical Machines II
- Power System Stability and Control
- Power System Protection
- Digital Control Systems
- Renewable Energy Systems

B.E

Computer Systems Engineering

B.E Computer Systems Engineering Program

The discipline covers all aspects of computer hardware, software and their integration. Computer engineers work with hardware and software, ensuring that the two are seamlessly integrated and functioning properly. Computer engineers focus on innovation—making computing systems safer, faster and more powerful. At the career level, there are two main avenues: hardware and software engineering. Hardware engineers focus their skills on computer systems and components, designing microprocessors, circuit boards, routers and other embedded devices. On the software side, these engineers create, test and debug programs and applications that run on computers, mobile devices and more. In coming years, expertise of both hardware and software will need to be combined so that in order to develop solutions for field like Internet-of-Things and Robotics.

Plan of Study B.E (Computer Systems Engineering)

Semester-I

English I (Comprehension)
Engineering Calculus I
Engineering Physics
Computing Fundamentals
Linear Circuit Analysis I
Pakistan Studies

Semester-II

Engineering Calculus II
English II (Communication)
Programming Fundamentals
Fundamentals of Electronics
Digital logic Fundamentals
Computer Engineering Workshop

Semester-III

Linear Algebra and Differential Equations
Object-oriented Programming
Electronic Circuit Design
Discrete Structures
Computer Architecture and Organization

Semester-IV

Probability Methods in Engineering
Data Structures and Algorithms
Signals and Systems
Microprocessors and Interfacing
Engineering Economics

Semester-V

Computer Application in Engineering Design
Data Communication and Networks
Linear Control Systems
Operating Systems
FPGA Based System

Semester-VI

Technical Report Writing
Engineering Project Management/Technology
Entrepreneurship/Entry Perineurial Project Management
Database Management System
Digital Signal Processing
Software Engineering

Semester-VII

Senior Design Project I
Numerical Methods
Professional and Social Ethics
Depth Elective I
Depth Elective II

Semester-VIII

Senior Design Project II
Sociology for Engineers
Islamic Studies/Ethics
Depth Elective III
Depth Elective IV

Elective Courses

- Artificial Intelligence
- Data Science
- Project Management
- Internet of Things
- Cloud Computing
- Robotics
- Fuzzy Logic
- Image Processing
- Virtual Reality
- Network Security

B.E (Electrical Engineering)

Career Opportunities

- ◆ Electrical Engineer
- ◆ Power Engineer
- ◆ Communication Engineer
- ◆ Electronics Engineer
- ◆ Computer & Information Research Scientists
- ◆ Alternative Energy Specialist
- ◆ Line Engineer
- ◆ Mobile phone service providers
- ◆ Electronics manufacturing companies
- ◆ Precise Engineering
- ◆ Aircraft Maintenance
- ◆ Navigation Engineer
- ◆ Controls Engineer
- ◆ Space Scientist
- ◆ Elevators Specialist
- ◆ Atomic Energy Commission
- ◆ Software Developer Companies
- ◆ Financial Institutions

B.E (Computer Systems Engineering)

Career Opportunities

- ◆ IoT Solutions provider
- ◆ Information Security Analyst
- ◆ Solution provider for AI and Robotics
- ◆ Software Developer
- ◆ Database Administrator
- ◆ Computer Hardware Engineer
- ◆ Computer Systems Analyst
- ◆ Computer Network Architect
- ◆ Web Developer
- ◆ Computer and Information Research Scientists
- ◆ Robotics
- ◆ AI solutions Providers
- ◆ Embedded solution providers
- ◆ Stock Exchanges



Pakistani Engineers now will be Equivalent to International Professionals, PEC



- B.E Electrical Engineering and B.E Computer Systems Engineering programs are approved by **PAKISTAN ENGINEERING COUNCIL (PEC)**, and aligned with Washington Accord.
- Graduates of B.E Electrical Engineering and B.E Computer Systems Engineering programs will be considered International professionals as per the agreement between Washington Accord and Pakistan Engineering Council.

Lab Facilities

Computing Workshop



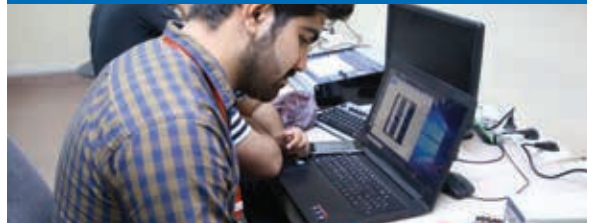
Programming and Simulation Lab



Control & Robotics Lab



Embedded System Lab



Engineering Research Lab



Electrical Workshop



Advance Computing Lab



Solar System Workshop



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Chancellor's Message



Mian Amer Mahmood
Chancellor

Our world today is in a state of flux. Information Technology has changed virtually every facet of our lives, and an ever-evolving business environment affects each and every one of us. In order to keep pace with these unrelenting changes, we ourselves must continue to acquire the skills and knowledge required to embrace the innovations that are engulfing the global economy.

As a developing nation, it is imperative that we acquire professional management, technical and research skills in order to allow our nation to be able to compete in today's global arena. We must expand our intellectual horizons so that our country can become an equal participant in the global village that the technology of the 21st century has created.

By choosing Mohammad Ali Jinnah University, you have assured yourself of an educational experience which will enrich your personal life, and empower you professional life. We are committed to providing a stimulating and supportive environment which allows each student to gain confidence and maximize their potential in their chosen field, be it business, telecommunication or computer science. Our educational programs and courses are designed to keep pace with the latest strides in technology and business.

Our faculty is eminently qualified, and is dedicated to equipping our younger generation with the essential academic, professional and personal skills required to compete in today's challenging employment environment. I welcome you to our institution, where you will not only gain practical knowledge in your chosen field, but also learn to lead, and to serve humanity. We hope your stay with us will be a memorable one.

President's Message



Dr. Zubair A. Shaikh

President

B.E, MS(Newyork,USA) PhD (Newyork,USA)

This University is right in the heart of one of the most vibrant cosmopolitan cities of the world is about both people and place. M.A.J University (as we are popularly known) strives to liberate students and faculty to explore, create, challenge, and become effective leaders. We empower our students by helping their visions and dreams grow through shared values, diversity, experience, respect, and faith. With special programs and community outreach programs available and encouraged, the curriculum and opportunities at M.A.J University are both exciting and aspiring.

The M.A.J University in recent days has initiated a mega transformation phase to make this University a top-ranking University of the region. We're enhancing the outlook of our faculty who are the top brains being drawn from all over the world to teach, perform, create, and study in a place where everyone belongs. The Industry faculty having minimum 10 years of experience are partnering with us by bringing in the diversity and practical exposure for our students. Technology and business incubators for our graduates and faculty are being created to develop a techno-preneurial eco system.

The Academic programs at M.A.J University are designed from Bachelors to PhD in disciplines of Management Sciences, Accounting, Economics & Finance, Computing Sciences, Electrical Engineering, Information Systems, Psychology and very soon other disciplines too. With an FM Radio station and partnerships with other leading Universities we are initiating blended / distance education programs in diverse areas at M.A.J University. With flexible course plans one can craft his/her own Degree plans and majors.

As the President of M.A.J University, I believe in giving you a dream and environment to accomplish your academic and professional goals: may you be a student, a faculty, a non-teaching staff member, an industry collaborator, an alumnus, a parent or just a passerby. Once you step-in, you are part of our M.A.J.U fraternity. We are also an important part of one of the largest educational conglomerate of Asia comprising of 3 Universities, a College Network of over 800 colleges and a network of over 3500 schools.

I hope you find Mohammad Ali Jinnah University as exhilarating and enriching as I do.

University Genesis

Mohammad Ali Jinnah University is proud to be part of the Punjab Group of Colleges (PGC), which in 1985, established itself in the province of Punjab. Over a period of thirty four years, the PGC has grown into the largest educational network throughout Pakistan, providing top quality education from Playgroup to Ph.D. The PGC has around half a million students in its schools, colleges and universities, and Mohammad Ali Jinnah University was hence born in Karachi two decades ago.

Mohammad Ali Jinnah University has two sister universities, namely the University of Central Punjab in Lahore and the Capital University of Science and Technology in the Federal Capital, Islamabad. At present more than 20,000 students are enrolled in these three universities. Apart from academia, other sister organizations include Dunya News in Media House, Towertech in Software House, and Allied Schools in education.

Mohammad Ali Jinnah University, from its inception since 1998, has comprehensive programs which are designed to meet the requirements of an evolving economy and employment environment. The curriculum is constantly updated to be in line with the demands of the latest trends in the markets and the new developments in technology. The University, along with having simulations and incubators, also conducts training sessions, seminars, and workshops for professionals to empower students to apply their learning in professional life.

Since 2016 it has reached to new horizons. With industrious and world class faculty, International outreach in the form of linkages with universities from Asia and Europe and active participation in conferences and workshops of international repute along with exponential increase in impact factor and H index lead to the recognition of university in HEC, PEC, NCEAC, NBEAC, CIEC and PSF. The university has focused strong emphasis on STEM areas by establishing state of the art labs, library, and classrooms. The work on new academic building has already been started in line with modern design in the downtown location of city.

Why Choose MAJU?

Ranked 1st
**BY SINDH HIGHER
EDUCATION
COMMISSION
THROUGH CIEC**
In General Category

Punjab Group of Colleges



Recognitions and Accreditation



Graduation



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Alumni Society (Quotes From Alumni)

The Alma mater of any university is the clearest indicator of the quality of education in any university. The alumni of Mohammad Ali Jinnah University have bloomed into a diverse group of talented and skilled individuals who have inscribed the achievement records of every industry in Pakistan with their professional approach to work.



Hasan Zuberi

Chairman Pakistan MENSA
President Council of PR Pakistan
Country Consultant, Momentum PR

I am a proud Alumnus of MAJU from the first MBA program. I still cherish my time at MAJU, and how it helped me, and many of my friends, to compete on all levels, and to reach the heights of corporate sphere.



Anver Arshad

VP - Head of IT Infrastructure & Information Security
Al Meezan Investment Management Ltd

I am a proud Alumnus of MAJU from the first MBA program. I still cherish my time at MAJU, and how it helped me, and many of my friends, to compete on all levels, and to reach the heights of corporate sphere.



Shiekh Muhammad Adeel

Senior Pre-Sales Engineer
Sys Cons, Dubai

The time at Mohammad Ali Jinnah University is unforgettable as it helped me grow professionally and personally. The learning from the university has shaped my career path in the best way possible.



Rafia Awan

Journalist
DW Deutsche Welle Germany

Mohammad Ali Jinnah University gave me hundred of good things in which four important keys I still keep with me. Take initiative, Trust yourself, Be part of solution and Be prepared for what is next.

MOUs Signed With Organizations

- Pakistan Institute of Public Finance Accountants (PIPFA), Karachi
- Association of chartered certified accountants (ACCA), Karachi
- SAP University Alliances, SAP SE, Germany
- MATZ GROUP, a Pakistan based consortium partner of AISOFT Inc. New York, USA
- SBT Pakistan, Karachi
- Microsoft Dynamics, Microsoft Ireland Operations Limited
- Caliber Vantage, Inc., a Texas, USA based corporation
- World Memon Organization (WMO), Karachi, Madadgaar Helpline, Karachi

MOUs Signed With Foreign Universities

- Khazar University, Baku, Azerbaijan
- Institute of Technology, Universiti Teknologi PETRONAS, Malaysia
- Kadir Has University, Turkey,
- Iskenderun Technical University, Turkey

MOUs Signed With Local Universities

- University of Central Punjab, Lahore
- Virtual University, Lahore
- Capital University of Science and Technology, Islamabad
- Institute of Cost Management Accountant of Pakistan (ICMAP), Karachi



Office of Research, Innovation & Commercialization (ORIC)

In 2017, for the first time, names of following two faculty members are included in Productive Scientists of Pakistan (PSP) directory of Pakistan Council of Science & Technology, Islamabad.

Psychology Clinic

Mohammad Ali Jinnah University has developed Psychology Clinic to provide counselling for mental health and overall well-being. It is a unique facility among all universities as it aims to build stronger and balanced personalities in students along with skills and knowledge improvement.

Sports Zone

Mohammad Ali Jinnah University has a well maintained sports zone which gives students the facilities to play indoor games like Table Tennis, Darts, Snooker, Carom and Chess in the dedicated sports room. Outdoor sports like cricket, futsal and badminton are also encouraged and the Sports Society regularly holds tournaments for all outdoor sports in which all students are welcome and encouraged to participate.



Placement Department

Mohammad Ali Jinnah University has a dedicated placement department for the assistance of fresh graduates in applying for jobs and internships in all types industries and reputed companies in the country. The department maintains a Graduate Directory that projects the qualifications, experience and skills of current graduates to the prospective employers.

Hostel

Mohammad Ali Jinnah University facilitates students who are from out of town and need residence in nearby areas. A hostel is also available for female students who have a problem of residence in Karachi.

Transportation

Mohammad Ali Jinnah University provides transport facilities to all the students living anywhere in the city. The transportation services kiosk is set up on the orientation day for the students to book before the start of the semester. This ensures that the students are not bothered with the problems of everyday commute and can focus on their studies well.

Cafeteria

Mohammad Ali Jinnah University has two cafeterias in two campus. The main cafeteria in Campus 3 is a newly furnished, air conditioned, comfy cafeteria for students and faculty to relax, dine and get refreshed after a hard day's work. The cafeteria serves all kinds of meals from breakfast to lunch and snacks from early morning to late in the evening.





CONTACT US

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