## 1. Engineering

### Civil Engineering

- Courses: Structural Engineering, Geotechnical Engineering, Transportation Engineering, Environmental Engineering
- Degree Programs: BSc in Civil Engineering, MSc in Civil Engineering, PhD in Civil Engineering
- Specializations: Construction Management, Urban Planning, Sustainable Design

# Mechanical Engineering

- Courses: Thermodynamics, Fluid Mechanics, Mechanical Vibrations, Heat Transfer
- Degree Programs: BSc in Mechanical Engineering, MSc in Mechanical Engineering, PhD in Mechanical Engineering
- Specializations: Robotics, Automotive Engineering, Aerospace Engineering

# Electrical Engineering

- o Courses: Circuits, Electronics, Control Systems, Power Systems
- Degree Programs: BSc in Electrical Engineering, MSc in Electrical Engineering, PhD in Electrical Engineering
- Specializations: Power Electronics, Telecommunication,
  Renewable Energy

# Computer Engineering

- Courses: Algorithms, Data Structures, Digital Logic Design, Computer Architecture
- Degree Programs: BSc in Computer Engineering, MSc in Computer Engineering, PhD in Computer Engineering
- Specializations: Artificial Intelligence, Machine Learning,
  Cybersecurity

# • Software Engineering

- Courses: Software Design, Database Management, Web Development, Software Testing
- Degree Programs: BSc in Software Engineering, MSc in Software Engineering, PhD in Software Engineering
- Specializations: Cloud Computing, Mobile App Development,
  Game Development

### 2. Medicine

### Bachelor of Medicine, Bachelor of Surgery (MBBS)

- Courses: Anatomy, Physiology, Biochemistry, Pathology, Surgery, Pediatrics
- Degree Programs: MBBS (5 years), Internship (1 year), Residency (for specialization)
- Specializations: Cardiology, Neurology, Orthopedics,
  Dermatology, Psychiatry

## • Dentistry (BDS)

- Courses: Dental Anatomy, Oral Medicine, Prosthodontics, Orthodontics
- Degree Programs: BDS (5 years)
- Specializations: Periodontology, Oral Surgery, Pediatric Dentistry, Cosmetic Dentistry

### Pharmacy

- Courses: Medicinal Chemistry, Pharmacology, Pharmaceutical Chemistry, Drug Development
- Degree Programs: Doctor of Pharmacy (Pharm.D), M.Pharm,
  Ph.D. in Pharmacy
- Specializations: Clinical Pharmacy, Pharmacology, Pharmaceutical Manufacturing

#### Nursing

- Courses: Fundamentals of Nursing, Anatomy & Physiology,
  Pharmacology for Nurses, Medical-Surgical Nursing
- Degree Programs: Bachelor of Science in Nursing (BSN), Master of Science in Nursing (MSN), Ph.D. in Nursing
- Specializations: Pediatric Nursing, Geriatric Nursing, Psychiatric Nursing

#### • Public Health

- Courses: Epidemiology, Health Policy, Environmental Health,
  Global Health
- Degree Programs: MPH (Master of Public Health), Ph.D. in Public Health
- Specializations: Health Management, Environmental Health, Epidemiology

### 3. Business and Management

#### Business Administration (BBA)

- Courses: Principles of Management, Accounting, Marketing, Organizational Behavior
- o **Degree Programs**: BBA (4 years), MBA (2 years), Executive MBA
- Specializations: Marketing, Finance, Human Resource Management, Operations Management

### Accounting and Finance

- Courses: Financial Accounting, Managerial Accounting, Financial Management, Investment Analysis
- Degree Programs: B.Com, BBA in Finance, M.Com, MBA in Finance
- Specializations: Forensic Accounting, Financial Risk Management,
  Corporate Finance

#### Economics

- Courses: Microeconomics, Macroeconomics, Econometrics, International Economics
- Degree Programs: BSc in Economics, MSc in Economics, Ph.D. in Economics
- Specializations: Development Economics, Monetary Economics, Environmental Economics

#### Marketing

- Courses: Marketing Management, Consumer Behavior, Digital Marketing, Strategic Marketing
- Degree Programs: BBA in Marketing, MBA in Marketing, Master's in Digital Marketing
- Specializations: Brand Management, Sales Management, Social Media Marketing

# • Human Resource Management

- Courses: Organizational Development, Human Resource Planning,
  Performance Management, Employment Law
- o **Degree Programs**: BBA in HRM, MBA in HRM, MS in HRM
- Specializations: Recruitment & Selection, Compensation and Benefits, Employee Relations

## 4. Computer Science and Information Technology

## • Computer Science

- Courses: Programming Languages, Data Structures, Algorithms,
  Software Engineering
- Degree Programs: BS in Computer Science, MS in Computer Science, PhD in Computer Science
- Specializations: Data Science, Cybersecurity, Artificial Intelligence, Cloud Computing

### Information Technology (IT)

- Courses: Database Systems, Network Security, Web Technologies,
  Operating Systems
- o **Degree Programs**: BS in IT, MS in IT, PhD in IT
- Specializations: IT Infrastructure, IT Project Management, Network Administration

### • Artificial Intelligence (AI)

- Courses: Machine Learning, Natural Language Processing, Deep Learning, Robotics
- o **Degree Programs**: MS in Artificial Intelligence, PhD in AI
- Specializations: Robotics, Cognitive Computing, AI for Healthcare

#### Data Science

- Courses: Big Data, Data Mining, Predictive Analytics, Statistical Methods
- o **Degree Programs**: MS in Data Science, Ph.D. in Data Science
- Specializations: Business Analytics, Data Visualization, Machine Learning

# Cybersecurity

- Courses: Ethical Hacking, Cryptography, Network Security, Cyber Law
- Degree Programs: BS in Cybersecurity, MS in Cybersecurity, Ph.D. in Cybersecurity
- Specializations: Penetration Testing, Cyber Forensics, Risk Management

#### 5. Arts and Humanities

## • English Literature

- Courses: Shakespeare, Victorian Literature, American Literature, Literary Criticism
- Degree Programs: BA in English Literature, MA in English Literature, MPhil in English Literature
- Specializations: Literary Theory, Creative Writing, English Education

#### History

- Courses: Ancient Civilizations, World History, Modern European History, History of Pakistan
- o **Degree Programs**: BA in History, MA in History, Ph.D. in History
- Specializations: Ancient History, Medieval History, Political History

### Philosophy

- o Courses: Ethics, Logic, Philosophy of Mind, Political Philosophy
- Degree Programs: BA in Philosophy, MA in Philosophy, MPhil in Philosophy
- Specializations: Metaphysics, Epistemology, Logic, Aesthetics

## Psychology

- Courses: Developmental Psychology, Clinical Psychology, Social Psychology, Cognitive Psychology
- Degree Programs: BA in Psychology, MA in Psychology, MPhil in Psychology
- Specializations: Clinical Psychology, Cognitive Behavioral Therapy, Educational Psychology

#### Sociology

- Courses: Social Theory, Research Methods, Family Studies, Urban Sociology
- Degree Programs: BA in Sociology, MA in Sociology, Ph.D. in Sociology
- Specializations: Criminology, Social Work, Environmental Sociology

#### 6. Social Sciences

#### Political Science

- Courses: Comparative Politics, International Relations, Political Philosophy, Public Administration
- Degree Programs: BA in Political Science, MA in Political Science, MPhil in Political Science
- Specializations: International Relations, Comparative Politics,
  Public Policy

#### • International Relations

- Courses: International Security, Globalization, International Law, Diplomacy
- o **Degree Programs**: BA in International Relations, MA in International Relations, MPhil in International Relations
- Specializations: Peace and Conflict Studies, International Trade, Security Studies

### Anthropology

- Courses: Cultural Anthropology, Archaeological Methods, Social Anthropology
- Degree Programs: BA in Anthropology, MA in Anthropology, Ph.D. in Anthropology
- Specializations: Medical Anthropology, Forensic Anthropology,
  Cultural Anthropology