KFUPM

Majors Guide

2025

3 College of Engineering & Physics

9 College of Chemicals & Materials

13 College of Design & Built Environment

18 College of Computing & Mathematics

25 College of Petroleum Engineering & Geosciences

29 KFUPM Business School

KFUPM

Aerospace Engineering

College of Engineering & Physics

What is Aerospace Engineering?

Aerospace Engineering is a key field supporting Saudi Arabia's economic development and diversification goals; it will equip students with expertise in advanced aerospace technologies. This program focuses on aviation engineering within and beyond the atmosphere using fundamental sciences like physics and aviation mathematics. Aerospace Engineering encompasses sub-specializations such as aerodynamics, aircraft control, space materials, and aviation electronics. Students will gain experience and skills through qualified faculty and advanced laboratories. Students design, test, and develop aircraft and spacecraft; they will innovate new technologies like unmanned systems, defense, and space exploration. Furthermore, the program produces future aerospace leaders, create sustainable solutions for global challenges, and localize technologies and expertise in this growing field.

CX Concentrations

- Drone Design and Application
- Robotics and Autonomous Systems

Career fields

- Defense and aviation sectors
- Specialized economic equilibrium companies
- Research and development
- National science, technology, and energy agencies
- Design, manufacturing, operation, and maintenance of aircraft, missiles, and satellites

KFUPM

Electrical Engineering

College of Engineering and Physics

What is Electrical Engineering?

Electrical Engineering studies and applies engineering principles and concepts in electricity and electronics. Students gain the knowledge and skills to understand, design, and develop electrical and electronic systems and devices. Students study subjects and topics related to electrical engineering, including electrical circuits, control systems, electronics, power systems, digital control techniques, communications, power generation, logical design, and integrated design. Through this program students develop innovative technological solutions for a variety of engineering challenges. Graduates are employed in many industries, including energy, telecommunications, manufacturing, research and development, and technology. Our program enables graduates to integrate multiple sectors where they contribute to advancing technology and innovation.

CX Concentrations

- Communication Systems
- Computational Analytics
- Computer Networks
- Bioelectronics & Sensors
- Decision Analytics
- Drone Design & Application
- Electronic Defense System
- Energy Efficiency
- Internet of Things (IoT)
- Laser & Microwave Sensing
- Process Safety
- Robotics & Autonomous Systems

Career fields

- Power Systems
- Signal Processing
- Electronics
- Control Systems
- Wired and Wireless Communications
- Integrated Circuits and Computers

KFUPM

Mechanical Engineering

College of Engineering and Physics

What is Mechanical Engineering?

Mechanical Engineering at KFUPM focuses on creative and efficient design, development, and enhancement of mechanical systems and devices. The program includes thermal engineering, energy systems, machine design, particle dynamics, control, advanced manufacturing, and materials science. Students develop diverse skills, including design, analysis, use of engineering software, and a profound understanding of mechanical systems and materials. The program graduates qualified experts who will keep pace with technological advancement, meeting the Kingdom's industry needs. Graduates work in multiple industries, including automotive, aerospace, energy, manufacturing, and scientific research.

CX Concentrations

- Computational Analytics
- Corrosion & Materials Degradation
- Decision Analytics
- Drone Design & Applications
- Energy Efficiency
- Polymer Science & Technology
- Hydrogen Mobility
- Non-Metallic Materials
- Nuclear Power Engineering
- Process Safety
- Thermal Systems
- Renewable Energy & Energy Storage
- Waste Management
- Intelligent Energy Systems Management

Career fields

- Design & Manufacturing
- HVAC Systems
- Maintenance
- Safety
- Renewable Energy

KFUPM

Physics

College of Engineering and Physics

What is Physics?

Physics is considered one of the most advanced scientific disciplines offered by KFUPM. Our physics program provides students with a comprehensive understanding of physics concepts while developing practical applications. Both theoretical and applied physics is offered, such as modern physics, particle physics, nuclear physics, solid-state physics, laser physics, electricity and magnetism, motion, and dynamics. The program's teaching uses sophisticated educational methods encompassing theoretical lectures and practical activities in laboratories equipped with the latest technologies and tools. Students are encouraged to engage in scientific research and practical experiments to gain valuable experience in the field of physics. Graduates have career opportunities in multiple industries and research areas contributing to scientific and technological advancements.

CX Concentrations

- Theoretical Physics
- Modeling
- Laser Physics
- Nuclear Physics
- Material Science
- Superconductivity

Career fields

- Academia sectors
- Quality Control Laboratories
- Oil and Gas Exploration
- Nuclear Power Reactors
- Nanotechnology
- Laser Applications in Industries & Medicine

KFUPM

Control and Instrumentation Engineering

College of Engineering and Physics

What is Control and Instrumentation Engineering?

The Control and Instrumentation Engineering program is the only one of its kind in the region. This program combines control specializations with measurement engineering making it stand out for its flexibility and diverse scope. Students enhance their understanding and application of cutting-edge technologies in control and advanced measurement systems developing practical knowledge and skills in energy, petrochemicals, automation, robotics, medical devices, and more. Focused on dynamic systems and industrial control, it also covers mathematical and physical concepts used in the analysis and design of control systems. Students benefit from advanced laboratories equipped with state-of-the-art technologies for practical application. Through hands-on experience, students become leaders in control, measurement, and information technology fields. Graduates enter the job market with a high level of experience and practical qualifications in modern and advanced industries.

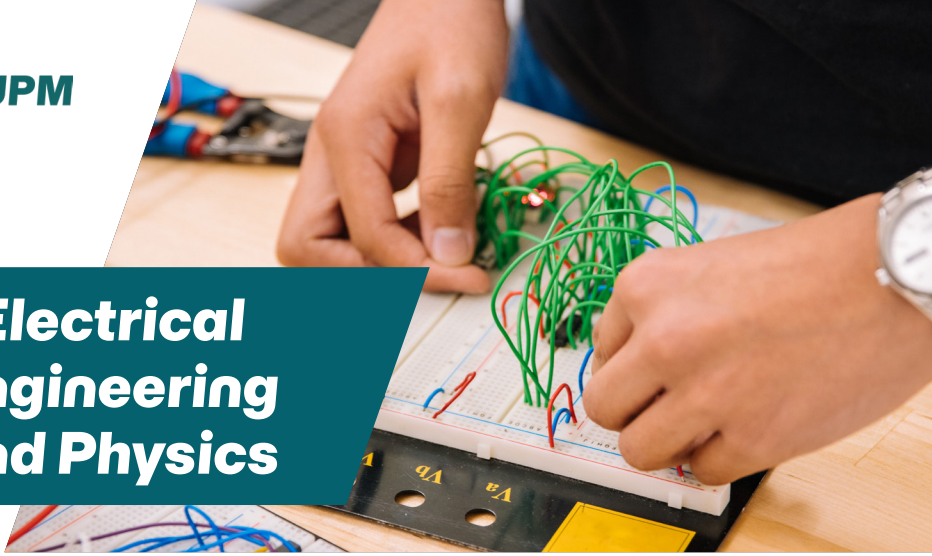
CX Concentrations

- Drone Design and Application
- Internet of Things
- Robotics & Autonomous Systems
- Bioelectronics and Sensors
- Computer Networks
- Decision Analysis

Career fields

- Operation and design of measurement devices
- Operation & design of digital control systems
- Utilizing microcomputers in control applications
- Operation & design of industrial process control systems

KFUPM



Electrical Engineering and Physics

College of Engineering and Physics

What is Electrical Engineering and Physics?

Electrical Engineering and Physics is a new program in the region offering a unique blend of physics and engineering skills that fall within the university's goal of integrating related disciplines to explore new methodologies and develop innovative technologies. This joint program between colleges provides a strong foundation and deep understanding of physics theories and mathematics, alongside fundamental knowledge and practical skills in electrical engineering and its design, as well as problem-solving abilities. Equipped with this diverse background, students tackle complex issues in various multidisciplinary fields, at the forefront of technology, such as renewable energy, communications, digital processing, computer science, quantum science and engineering, nanotechnology, lasers, and any other engineering field requiring a solid foundation in physics.

CX Concentrations

- Bioelectronics & Sensors
- Communication Systems
- Computational Analytics
- Computer Networks
- Electronic Defense System
- Laser & Microwave Sensing
- Internet of Things (IoT)
- Energy Efficiency
- Decision Analytics
- Drone Design & Application
- Process Safety
- Quantum Information & Computing

Career fields

- Power & Control Systems
- Wired & Wireless Communications
- Military Industries
- Integrated Circuits & Computers
- Solid-State Devices & Robotics
- Nuclear Power Reactors

KFUPM

Chemical Engineering

College of Chemicals and Materials

What is Chemical Engineering?

Chemical engineering at KFUPM equips graduates to develop and design innovative and sustainable chemical processes, providing them with advanced technical skills and problem-solving abilities. The program combines chemical and physical sciences to design and improve processes for converting chemical and petroleum materials into value-added products. Graduates will use chemical and biological processes to focus on engineering solutions for industrial challenges. Students study chemistry, physics, mathematics, and computer science to enhance understanding of chemical, thermal, and electrical processes in processing and production units. Its pillars encompass the design, analysis, monitoring, and enhancement of chemical processes while studying the economic and environmental aspects of these operations. Practical skills are reinforced through hands-on experiments and the utilization of advanced technology in process modeling.

CX Concentrations

- Process Safety
- Refining & Petrochemicals
- Renewable Energy & Energy Storage
- Thermal Systems
- Hydrogen Mobility
- Non-Metallic Materials
- Nuclear Power Engineering
- Polymer Science & Technology

Career fields

- Refining & petrochemicals
- Natural gas processing & water desalination
- Air & water pollution control
- cement & fertilizer manufacturing
- Biotechnology & pharmaceuticals
- Design & simulation of chemical processes

KFUPM

Material Sciences and Engineering

College of Chemicals and Materials

What is Material Sciences and Engineering?

Pioneered in Saudi Arabia and the Gulf region, Materials Science and Engineering blends diverse disciplines, including engineering, chemistry, physics, chemical engineering, and electrical engineering. Students explore the links between material structure and properties, comprehending a material's entire lifecycle—from raw material acquisition, formation, material manufacturing, production, usage, and maintenance to waste management and disposal. Additionally, students design innovative new materials, selecting their application in specific fields, assessing performance, and studying environmental impact. The comprehensive knowledge, coupled with practical experience offered throughout the program in material synthesis, characterization, and experimental design, enables graduates to leverage these skills to address numerous engineering problems faced by society. They will use materials in various new applications and further develop technologies in medicine, defense, aerospace, transportation, information technology, communications, mining, and more.

CX Concentrations

- Corrosion and Materials Degradation

Career fields

- Corrosion & Materials Degradation Engineering
- Materials Research Engineering
- Material Manufacturing Engineering
- Academic Research in Materials
- Military Industries
- Minerals

KFUPM

Chemistry

College of Chemicals and Materials

What is Chemistry?

KFUPM's Chemistry program studies elements and chemical substances in detail, fostering understanding of material properties, behaviors, compositions, changes, and chemical reactions. Students analyze and comprehend the interactions between substances and their role in producing new compounds or restructuring atoms and arrangements. The curriculum includes theoretical lectures, discussion sessions, scientific presentations, and practical experiments in our state-of-the-art laboratories. The program equips graduates with the knowledge and skills to become leaders in various chemistry-related fields such as research and development, quality control, manufacturing, environmental protection, legal consultations, and education.

CX Concentrations

- Analytical Chemistry
- Organic Chemistry
- Physical Chemistry
- Polymer Chemistry
- Industrial Chemistry

Career fields

- Chemical Analysis & Quality Control
- Water & Environmental Fields
- Chemical Industries & Petroleum Derivatives
- Support for Scientific Research
- Specialized Governmental Bodies

KFUPM

Bioengineering

College of Chemicals and Materials

What is Bioengineering?

Bioengineering emphasizes the cognitive, applied, and research balance between biological sciences and engineering fundamentals. Students connect modern technologies and medicine to solve problems in industrial, medical, and environmental sectors. This recent field has gained significance in the global economy due to its wide-ranging applications in biomedical devices, biological sensors, bioinformatics, biomaterials, and environmental sustainability. Students study human body engineering, conduct studies and research to manufacture medical devices and equipment, and applications such as biofuel production and renewable energy. By merging knowledge with the practice of biomedical engineering, innovation, and technology development, graduates become pioneers of business and government agencies in the field of biotechnology, including the designing and manufacturing of healthcare equipment, renewable bioenergy, genetic engineering, and pharmaceuticals.

CX Concentrations

- Bioinformatics and Sensors
- Bioinformatics

Career fields

- Medical Device Sector
- Food Industries
- Pharmaceutical Sector
- Renewable & Bioenergy Industries
- Medical Centers & Laboratories

KFUPM

Civil Engineering

College of Design and Built Environment

What is Civil Engineering?

Students of Civil Engineering improve quality of life through constructing and enhancing infrastructure, such as roads, bridges, dams, tunnels, irrigation, and sanitation systems. Students of geotechnical engineering, focus on soil analysis and building foundations, construction engineering, and construction materials. Additionally, transportation engineering students manage road engineering and traffic control, water resources, and sanitation engineering, focused on hydraulic facility design and water management. Graduates are skilled in design, analysis, and implementation, enabling them to meet the demands of the civil engineering job market and contribute to community infrastructure development.

CX Concentrations

- Climate Change Adaptation
- Traffic Engineering
- Resilient Marine Infrastructures
- Waste Management

Career fields

- Transportation Engineering
- Construction Engineering
- Geotechnical Engineering
- Water & Environmental Engineering

KFUPM

Architectural Engineering

College of Design and Built Environment

What is Architectural Engineering?

KFUPM's Architectural Engineering equips students with the skills to design integrated engineering systems for buildings, including innovative and advanced structural, mechanical, electrical, lighting, and energy systems which incorporate environmental, economic, and functionality resulting in quality and sustainability. Students graduate with the knowledge and skills to meet job market demands, focusing on designing and implementing smart and sustainable building systems. Additionally, students apply energy-efficient techniques and use sustainable materials to reduce carbon emissions. The program enhances students' artificial intelligence, machine learning capabilities, and uses data analysis to provide creative and innovative solutions in the construction industry, improving housing quality in the Kingdom. Graduates possess entrepreneurial and leadership skills, combining computational engineering and project management that opens new employment opportunities and contributes to community development.

CX Concentrations

- Smart & Sustainable Buildings
- Energy Efficiency
- Construction Management Automation

Career fields

- Project management in engineering companies and agencies
- Energy-efficient companies
- Building maintenance & operation companies
- Construction companies & building design & construction firms
- Design & engineering consulting firms
- Smart & sustainable building systems companies

KFUPM

Integrated Design

College of Design and Built Environment

What is Integrated Design?

KFUPM's Integrated Design program is an innovative, multidisciplinary program introduced for the first time in Saudi Arabia and the Middle East. The program draws on design, computation, engineering, business, 3D design, and integrated realities to stimulate creative thinking using research methods, analysis, and problem-solving strategies. Integrated Design graduates create solutions that support local content in designing social and human experiences and products; they are the new generation of entrepreneurs, leaders, and innovators enhancing business competitiveness and efficiency to uplift the economy and quality of life. With a wide range of specialized disciplines, graduates will define their career paths in design fields that align with current and future job market needs.

CX Concentrations

- Game Design and Development
- Product Design and Development
- Human-centered Design
- Mixed Reality Design

Career fields

- Service Design & Innovation
- Innovation Management, Creative Directing
- Game Design and Development
- Interactive Design
- Design and Products Research
- Product or Industrial Design & Development

KFUPM

Smart and Sustainable Cities

College of Design & Built Environment

What is Smart and Sustainable Cities?

KFUPM's Smart and Sustainable Cities program uses smart technologies, sustainability concepts, and modern planning theories to craft future cities in Saudi Arabia and globally. Students create innovative and sustainable design solutions that uplift living standards and safeguard the environment. The program covers planning policies, city management, infrastructure, and transportation, as well as economic, social, environmental, and humanitarian issues. This is achieved by applying smart and innovative methods, technologies, and practices (such as artificial intelligence, the Internet of Things, and smart networks) in the process of design, planning, data collection, and analysis. Designed to empower future urban planners, the program instills the proficiency to deploy smart solutions and confront urban planning and digitization challenges, enhancing cityscapes. Students learn modern planning methods and data analysis by following and integrating the latest digital and informational discoveries and developments. Concentrations like Digital Twins, Smart Mobility, and Smart City Management open career paths in municipalities, tech companies, and consultancies, driving the evolution of sustainable urban environments.

CX Concentrations

- Urban Digital Modeling
- Intelligent Transportation & Mobility Solutions
- Smart Urban Administration
- Urban Analytics & Visualization

Career fields

- Municipalities & Local Authorities
- City Development Agencies
- Technology & Innovation Companies
- Real Estate Development Companies
- Transportation Companies
- Consultancy Firms, and Offices

KFUPM

Environmental Science Engineering

College of Design & Built Environment

What is Environmental Science Engineering?

Environmental Science Engineering uses engineering, science, and economics to understand pressing environmental issues in the Kingdom and globally. Students develop safe and sustainable solutions to environmental problems by combining chemistry, biology, Earth sciences, civil, biological, chemical, and mechanical engineering to find innovative environmental solutions that encompass public health, safety, welfare, cultural, social, environmental, and economic factors. The program studies climate change issues and water, soil, and air pollution. Students graduate with a strong educational foundation in environmental sciences and engineering education. Our graduates are ready to solve environmental challenges using the latest techniques to develop solutions for environmental issues faced by local and global communities.

CX Concentrations

Coming soon

Career fields

- Design & management of various water treatment plants
- Environmental system management
- Water resource management
- Preparation of sustainability studies for the environment
- Design & management of air treatment systems

KFUPM

Computer Science

College of Computing and Mathematics

What is Computer Science?

Computer Science students study hardware and software from theoretical and hands-on perspectives, focusing on artificial intelligence, information security, software development, computer networks, mobile applications, and computer gaming. Students explore areas of data analysis, system design, application development, and problem-solving using modern technologies of computer science. The cutting-edge curriculum allows students to engage with contemporary technological challenges and apply knowledge gained from the program. Students access state-of-the-art labs and devices and work with experienced computer science faculty. Our graduates contribute innovations and solve complex technical problems in the information technology and communications industry.

CX Concentrations

- Artificial Intelligence & Machine Learning
- Computational Analytics
- Computer Networks
- Cybersecurity
- Data Science and Analytics
- Decision Analytics
- Internet of Things
- Quantum Computing

Career fields

- Application & Systems Developer
- Data & Systems Analyst
- Internet Security Analyst
- Network Systems Administrator
- Game Developer
- Database Administrator

KFUPM

Software Engineering

College of Computing and Mathematics

What is Software Engineering?

Students in KFUPM's Software Engineering program begin software development and solve real problems at the start of their studies. They apply engineering principles and project management in software development processes, encompassing diverse sciences such as software requirement analysis, software design and development, and quality testing. The program covers user interface design and software project management concepts, equipping graduates with necessary knowledge and skills for efficient software development while reducing costs and risks. The program uses applied teaching methods, including hands-on labs and semester projects, providing students with practical experience aligned with theoretical studies. Graduates apply their knowledge and skills in the job market across various technical roles such as website and application development, software project management, providing technical consultancy, and more.

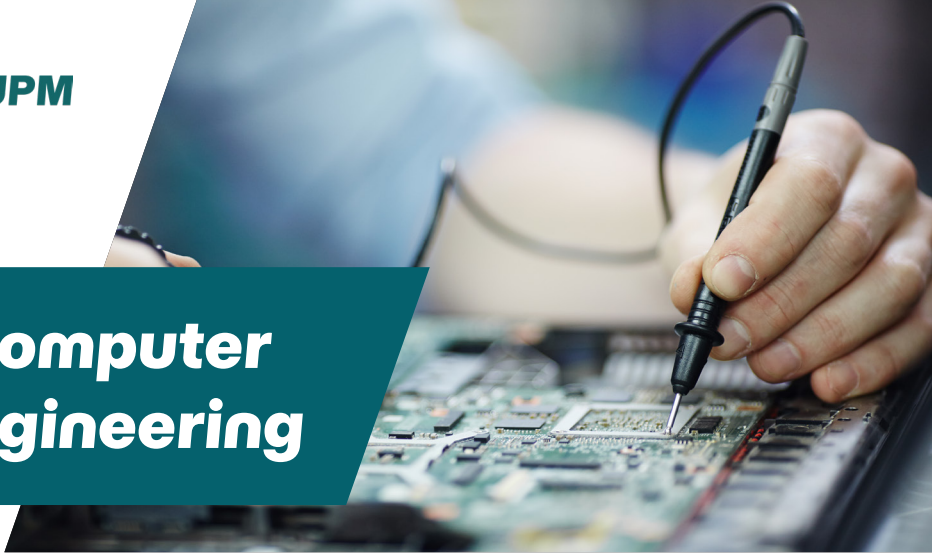
CX Concentrations

- Artificial Intelligence & Machine Learning
- Cloud Computing
- Computer Networks
- Cybersecurity
- Decision Analytics
- Internet of Things

Career fields

- Application Developer
- Systems Developer
- Software Manager
- Software Engineer
- Construction & Programming of Cloud Systems & Applications

KFUPM



Computer Engineering

College of Computing and Mathematics

What is Computer Engineering?

The Computer Engineering program provides students with a comprehensive understanding of computer systems, enabling them to develop innovative applications and find solutions to a variety of challenges. Students design, develop, and construct computer systems, encompassing both physical and software components. Students study computer programming, computer system architecture, embedded systems, computer networks and communications, information security, cloud computing, and more. Computer Engineering combines theories, analyses, and practical experiments in laboratories, where students apply theoretical concepts in practical settings. Graduates are prepared with advanced engineering solutions using computer technology, enabling them to continue learning and keep pace with technological advancements.

CX Concentrations

- Computer Networks
- Internet of Things
- Embedded Systems
- Cloud Computing
- Artificial Intelligence & Machine Learning
- Cybersecurity
- Quantum Computing
- Robotics & Autonomous Systems
- Data Science
- Mechatronics

Career fields

- Designing, building & managing computer networks
- Digital & Embedded Systems design & construction
- Smart Cities & Logistics systems
- Military sectors
- Banking & Financial Technologies
- Cloud systems construction & applications

KFUPM

Industrial and Systems Engineering

College of Computing and Mathematics

What is Industrial and Systems Engineering?

Students in the Industrial and Systems Engineering program enhance efficiency, productivity, and quality across various sectors, be it industrial or service-oriented. The program delivers a comprehensive understanding of operational systems and resources, of which students effectively analyze and improve upon. Translating real-world challenges into mathematical models and applying methods to solve them sets this program apart. Students use mathematics and operations research to efficiently analyze data and make decisions within fields like process improvement, project management, quality management, systems analysis, and operations. In the classroom, students experience comprehensive learning, integrating theoretical concepts with practical applications using advanced technologies and collaborative projects. Graduates analyze and improve systems, achieve tangible improvements in complex operations, institutions, and communities, and become leaders in various fields.

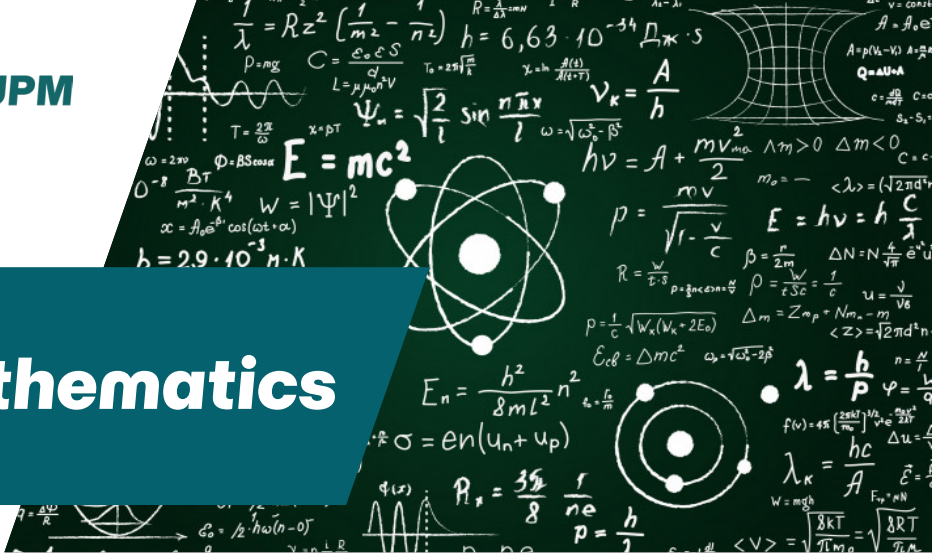
CX Concentrations

- Data Science and Analytics
- Decision Analytics
- Process Safety
- Robotics & Autonomous Systems
- Corrosion & Materials Degradation
- Traffic Engineering
- Waste Management

Career fields

- Production Planning
- Quality Control
- Supply Chain Management
- Workplace Design & Environment
- Safety Planning
- Maintenance Planning

KFUPM



Mathematics

College of Computing and Mathematics

What is Mathematics?

KFUPM's Mathematics program is flexible, evolving, and relies on a solid academic foundation with periodic content updates. Students graduate with a comprehensive mathematical background encompassing pure and applied mathematics and numerical analysis. Students apply these skills across various government and industrial sectors or pursue further studies in mathematics or any other field. The curriculum covers fundamental topics in mathematics such as algebra, mathematical analysis, and numerical analysis, including differential equations and geometry. The program's interactive approach makes students participants in the learning process, utilizing mathematical laboratories and software. Students graduate prepared for challenges facing governments and industry by applying mathematical skills to serve society.

CX Concentrations

- Computational Analytics
- Data Science

Career fields

- Academia
- Banking
- Research
- Data Analyst

KFUPM

Actuarial Science and Financial Mathematics

College of Computing and Mathematics

What is Actuarial Science and Financial Mathematics?

The Actuarial Science and Financial Mathematics program provides students with a strong background in mathematics, statistics, finance, and insurance while enhancing necessary digital and practical skills. Through the program students learn to deal with risk management effectively in financial and governmental sectors. Additionally, they are prepared to pass the exams of international professional associations. The program uses interactive educational approaches that encourage active participation in the learning process using laboratories and mathematical software. Graduates effectively manage financial and governmental risks through data analysis and by making informed and efficient decisions.

CX Concentrations

Coming Soon

Career fields

- Statistical & financial data analyst
- Investments & asset management
- Global financial system analysis & Islamic financial system
- Capital and risk management
- Product pricing, design, and distribution

KFUPM

Data Science and Engineering

College of Computing and Mathematics

What is Data Science and Engineering?

This field integrates knowledge from mathematics, statistics, and computer science to analyze and interpret large amounts of data. Its aim is to equip companies and organizations with the ability to understand and handle data effectively, allowing them to make strategic decisions based on data-driven insights.

CX Concentrations

- Machine Learning
- Big Data Analytics
- Applied Statistics
- Cybersecurity in Data

Career fields

- Technology
- Healthcare
- Finance and Banking
- Marketing and Sales
- Financial Markets

KFUPM

Petroleum Engineering

College of Petroleum Engineering & Geosciences

What is Petroleum Engineering?

The Petroleum Engineering program is the first of its kind in the kingdom and ranked 2nd globally in 2024, surpassing some of the finest universities worldwide. Since 1973 Students have studied mechanical and chemical engineering, geology, and geophysics as the foundation for understanding petroleum extraction and production, covers site exploration and assessment, designing and maintaining facilities, and utilizing modern technology. Our laboratories are equipped with state-of-the-art technologies and equipment that simulates conditions of petroleum extraction operations. Graduates leave possessing deep analytical skills, a solid technical foundation, and the ability to make strategic decisions in the oil and gas sector.

CX Concentrations

- Enhanced Oil Recovery Techniques
- Unconventional Hydrocarbon Resources
- Sustainability in E&P Industry

Career fields

- Oil industry
- Government Energy Sector
- Research & Consultancy
- Studies & Supporting Services
- Sustainable Energy Sectors

KFUPM

Geophysics

College of Petroleum Engineering & Geosciences

What is Geophysics?

Geophysics at KFUPM studies natural processes and phenomena within the Earth using physical techniques, equipping students with fundamental knowledge and skills to lead various fields in geophysics, particularly those related to the oil sector and natural resources in Saudi Arabia. Students study geophysical data, analyze natural environments, focus on solving environmental problems, and use technologies for exploring and exploiting natural resources. Graduates integrate seamlessly into governmental or private sectors, explore and develop natural resources, and further their professional paths through active participation in research and innovations in this vital field.

CX Concentrations

- Petroleum Geophysics
- Exploration Geophysics
- Seismology & Volcanology

Career fields

- Oil and gas companies
- Governmental entities & industrial facilities related to geoscience
- Water & mining companies
- Consulting firms in earth sciences

KFUPM

Geology

College of Petroleum Engineering & Geosciences

What is Geology?

The Geology program studies Earth sciences and environmental and economic applications; it provides students with the knowledge and skills necessary to comprehend and explore the geological world, learning the structure and evolution of the Earth's crust, predicting earthquakes and volcanoes, and exploring and exploiting natural resources such as oil, gas, and minerals. Using fundamental sciences like geophysics, geochemistry, and environmental sciences students understand the Earth's processes and monitor geological and ecological phenomena. The program covers environmental geology, petroleum, marine geology, and earthquakes. Students gain deep knowledge in these fields and apply it to practical projects using modern laboratories with advanced technology for geological data analysis and field visits to important geological sites. Graduates enter the workforce competent in natural resource exploration, environmental solutions, and geological research; they are skilled in geological data analysis, making sustainable decisions, negotiation, and effective communication in diverse environments and industries.

CX Concentrations

- Petroleum Geology
- Marine & Ocean Geology
- Environmental Geology
- Hydrogeology
- Space Geology
- Geological Engineering

Career fields

- Oil and gas companies
- Government institutions & industrial facilities
- Government institutions and industrial facilities
- Environmental & well drilling consulting firms

KFUPM

Mining Science and Engineering

College of Petroleum Engineering & Geosciences

What is Mining Science and Engineering?

KFUPM's Mining Science and Engineering is a unique program in Saudi Arabia specializing in identifying, extracting, producing, and processing mineral resources in response to the expected rise in demand for minerals as both the kingdom and worldwide shifts to clean and renewable energy. Students delve into geology, minerals, rocks, surface and subsurface mining, drilling methods, rock mechanics, soil, and mineral ore processing. The program covers the design of surface and underground mines, sustainable mining, and mineral economics to ensure safe and cost-effective extraction. Students graduate with theoretical and practical knowledge covering mineral exploration, evaluation of deposits in terms of size and mineral concentration, and methods for safe extraction and processing that are environmentally friendly and economically viable. Program graduates are highly competent engineers who demonstrate leadership and make a difference in their chosen profession within this field.

CX Concentrations

- Mineral Exploration and Mining Geoscience

Career fields

- Mining and Minerals Geology and Exploration Companies
- Mining and Mineral Exploration Consulting Companies
- Government Agencies & Higher Education Institutions

KFUPM

Human Resource Management

KFUPM Business School

What is Human Resource Management?

KFUPM's Human Resource Management program equips students with comprehensive knowledge of work systems and organizational principles. This encompasses employee recruitment and selection processes, training and development, performance management, wages, and job benefits. Students integrate and apply martials from psychology and sociology related to human resource management across various sectors. Graduates are prepared for roles in recruitment management, training, performance evaluation, salary determination, compensation, and additional benefits. Graduates are empowered to take on leadership responsibilities in these fields having learned to evaluate and review human resource programs and participate in transformation and change programs within institutions, companies, and more.

CX Concentrations

- Business Analytics
- Supply Chain Management

Career fields

- Human Resource Specialist
- Performance Specialist
- Compensation & Benefits Specialist
- Training & Development Specialist
- Recruitment & Hiring Specialist
- Employee Relations Officer

KFUPM

Finance

KFUPM Business School

What is Finance?

KFUPM's Finance program responds to the strong demand from students and the tremendous growth of Saudi Arabia's financial sector. Students study all facets of financial literacy, including microeconomics, macroeconomics, managerial accounting, financial policy and modeling, and management of financial institutions. The program is endorsed by the CFA Institute, the world's leading financial professional association. With Saudi Arabia's transition to the new digital economy, our graduates enter the workforce prepared for ongoing structural changes in the Saudi economy by placing greater emphasis on the service sector supported by privatization, the removal of restrictions, diversification, and regional and global integration.

CX Concentrations

- Business Analytics
- Human Resource Management
- Supply Chain Management

Career fields

- Investment portfolio management
- Financial analysis & consulting
- Feasibility studies
- Finance

KFUPM

Marketing

KFUPM Business School

What is Marketing?

The Marketing program focusses on the customer as the cornerstone of success for any organization or company, whether large or small. Our students learn to meet the needs and desires of customers by designing and delivering suitable products and services, understanding the target audience, and developing appropriate marketing strategies. Students create effective marketing strategies and conduct precise market analysis for informed decision-making. The program covers critical aspects such as brand building and development, digital marketing, and more. Teaching methods in this program vary between traditional lectures, classroom activities, case studies, and practical projects. Graduates leave possessing multiple skills, including market analysis, data analytics, strategy development, and advanced communication and leadership skills.

CX Concentrations

- Business Analytics
- Human Resource Management
- Supply Chain Management

Career fields

- Brand Manager
- Social Media Networking Coordinator
- Corporate Communication Specialist
- Marketing Manager
- Digital Marketing Specialist
- Marketing Analyst

KFUPM

Management Information Systems

KFUPM Business School

What is Management Information Systems?

KFUPM's Management Information Systems is a multi-disciplinary program combining computer science, business intelligence, and information management to enhance institutional performance and facilitate effective managerial decisions. This program emphasizes strategic planning, comprehensive analysis, and modern techniques to develop optimal technical solutions for companies. It offers students a unique blend of technical knowledge and a profound understanding of business operations, enabling success in a changing economic environment. Students develop and design technological solutions for institutions, providing comprehensive training in business applications, management software, business intelligence, information systems management, and databases. Graduates deliver innovative information solutions, formulate strategic plans for IT management, develop e-commerce, administrative planning systems, and information security while keeping up with managerial and informational needs in various industrial and commercial sectors.

CX Concentrations

- Business Analytics
- Human Resource Management
- Supply Chain Management

Career fields

- Systems/Database Analyst
- Systems/Application Developer
- Systems Designer
- E-commerce Systems Analyst & Designer
- Information Consultant
- Computer Systems Auditor

KFUPM

Accounting

KFUPM Business School

What is Accounting?

Students in the Accounting work effectively in a wide range of accounting professions across various types of economic organizations. The program is designed to prepare graduates for positions in industrial accounting, general accounting, government, not-for-profit organizations, or in the academic accounting profession. Emphasizing fundamental knowledge in all areas of business management as the foundation for an accounting profession, the program includes financial accounting, cost accounting, managerial accounting, advanced accounting, auditing, and practical training in the field of accounting. The program also focuses on principles, concepts, and procedures for measuring, analyzing, and communicating economic information to decision-makers.

CX Concentrations

- Business Analytics
- Human Resource Management
- Supply Chain Management

Career fields

- Financial Manager
- Financial Accountant
- Management Accountant
- Zakat and Tax Accountant
- Internal Auditor
- External Auditor

FIND US ON

@KFUPM

@KFUPM_Official

www.kfupm.edu.sa