

Introduction

The Software Engineering Department is dedicated to developing software engineering professionals who are prepared to lead within the Information Technology workforce.

Our undergraduate program provides a thorough grounding in the theory and practice of software development lifecycle phases as well as the economics and management principles essential for building secure and robust software systems.

Our graduates will be equipped to drive the digital transformation of organizations and actively contribute to the growth of a knowledge-based society.

Job Titles

- Software Engineer
- Software Requirements Engineer
- System Analyst
- Software Developer
- Business Analyst
- Software Quality Assurance Engineer
- Systems Architect
- Frontend/Backend Software Engineer
- UI/UX Designer
- Software Project Engineer/Manager

Why Study Software Engineering

Studying software engineering offers significant advantages, particularly in Saudi Arabia's rapidly growing IT and software sector. Fueled by the Kingdom's Vision 2030 and the National Transformation Program, there's an unprecedented demand for software professionals to drive digital transformation across various industries. This demand translates into numerous opportunities within a market projected for substantial growth, boasting a 7.78% CAGR and an expected \$5.00 million incremental growth from 2021 to 2026

Software engineers are at the forefront of creating innovative solutions and driving the digital transformation that is reshaping how businesses operate and how people live. The rapid expansion of AI technologies is increasing the need for software engineers who can manage AI-driven workflows and develop AI-powered applications. The growth of e-commerce and online services requires skilled software engineers to build and maintain these platforms.

Government initiatives, including the digitization of economic sectors and the streamlining of business operations through digital services, are further propelling this growth. This environment attracts major global tech players and investments, creating a fertile ground for software engineers. The future outlook for the IT and software industry in Saudi Arabia is exceptionally promising, positioning the Kingdom as a future digital powerhouse.

Mission

Graduating high caliber software engineers who can effectively contribute to the sustainable national development and serve the community through a modern curriculum and applied research.

Goals

- Demonstrate the development of software systems of varying size and complexity using fundamental software engineering knowledge and skills to work with modern requirements, architecture & design, construction, maintenance economic & Management principles, tools, and technologies.
- Meet the needs of industry or academia contributing to and eventually leading software engineering-based teams with professional, ethical, and social responsibilities.
- Develop critical, analytical, and intellectual abilities of students by nurturing creative and independent thinking, and the ability to communicate clearly and logically.
- Enhance skills and embrace new computing technologies through self-directed professional development and postgraduate education, training and research.

Program Objectives

The Program Educational Objectives of the Software Engineering program are that, within a few years after graduation, program graduates are prepared to:

PEO-1: Advance in leading the development and evolution of complex software systems in diverse application domains

PEO-2: Pursue career development in the software industry, academia, or entrepreneurship.

PEO-3: Demonstrate agility in solving software and systems challenges with a comprehensive set of competencies appropriate to the needs of the dynamic global knowledge-based society.

Faculty Members

Name	Designation	Areas of Interest	Contact
Dr. Jumah Alalwani	Assistant Professor & Head of Department.	Decision Analytics and Support Systems, Operations Research, Software Project Economics and Management, Systems Engineering.	J.alalwani@upm.edu.sa
Dr. Basit Shahzad	Associate Professor	Software Requirements Engineering, Software Project Management, Software Risk Management	b.shahzad@upm.edu.sa
Dr. Abdurazzag Almiladi	Assistance Professor	Software Architecture and Design, Software Construction; Cryptography; AI and ML for Software Engineers	a.almiladi@upm.edu.sa
Dr. Osama Qaed	Assistant Professor	Empirical Software Engineering, Software Process Improvement, Software Testing, AI-based Automated Software.	o.qaed@upm.edu.sa
Dr. Hazrina Sofian	Assistant Professor	Software Requirements Engineering, Software Modelling in System Analysis, Semantic Web/Ontology, Software Automation, Natural Language Processing.	h.sofian@upm.edu.sa
Mr. Khaled Boukesra	Lecturer	Software Requirements Engineering, Agile Software Project Management, Agile Software Development, Business Intelligence and Data Engineering	k.boukesra@upm.edu.sa

جامعة الأمير
مقرن بن عبد العزيز
University of Prince Mugrin



University of Prince Mugrin
College of Computer and Cyber Sciences
Department of Software Engineering

