

## PROGRAM STRUCTURE

Course	No. of Courses	Credit Hours
Core	25	66
College	9	29
Major	9	27
Electives	3	10
<b>TOTAL</b>	<b>46</b>	<b>132</b>

## DEGREE PLAN



## FACILITIES

Smart classrooms with Blackboard, Smartboard and Banner.



Labs: Sun, Electronics, Circuits, Robotics, Arduino, Cloud Computing. Android, iOS.

## ADMISSION REQUIREMENTS

- Completed online application.
- Secondary school certificate or equivalent.
- General Aptitude Tests (Qudrat) or equivalent (SAT1)
- Standard Achievement Admission test ( SAAT- Tahseely) or equivalent ( SAT2)
- PMU English Placement Test or valid IELTS certificate (Academic version) / TOEFL iBT with acceptable scores.



## HOW TO APPLY

- Apply Online → Receive verification email
- Complete your online application → Receive Acceptance
- Pay the 1st installment



APPLY



PAY

## ADMISSIONS OFFICE

enrollment@pmu.edu.sa

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جامعة الأمير محمد بن فهد  
PRINCE MOHAMMAD BIN FAHD UNIVERSITY

## SOFTWARE ENGINEERING



كلية هندسة وعلوم الحاسب الآلي  
COLLEGE OF COMPUTER ENGINEERING AND SCIENCE



WANT MORE INFO?  
PMU.edu.sa

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## INTRODUCTION



Software engineering is viewed as a new engineering discipline concerned with all aspects related to the life cycle of software development and production. It has grown so fast that it has become firmly linked to all other computer related areas such as artificial intelligence, parallel processing, computer graphics, human-computer interaction, database management systems, and many others. Software Engineering embraces all technical skills engineers need to acquire in developing high-quality, efficient, usable, accessible, maintainable, secure professional software improving existing software. These skills include concepts, models, theories, practices, techniques and tools.

## WHY SOFTWARE ENGINEERING?

Students who want to focus on software engineering are expected to gain and integrate knowledge from various subject areas including computer programming, data structures, human-computer interaction, database systems, web development, software project management, software design, software testing, systems analysis, and software quality assurance. These skills are needed to solve current challenges in software engineering research and development such as: dealing with the increased complexity of software required in new applications, the need to develop trustworthy and secure software, handle the increased market demands for a quick turnaround from concept to deployment and operation, etc.

## PROGRAM OBJECTIVES

- ↳ Graduates will pursue successful careers as professionals and/or undertake graduate studies
- ↳ Graduates will pursue state-of-the-art solutions to software engineering problems, and evaluate and embrace new technologies
- ↳ Graduates will demonstrate professional and ethical responsibilities in their careers and engage in self-learning activities
- ↳ Graduates will undertake leadership roles in industry and make positive impact in the development of their communities

## PROGRAM OUTCOMES

- ↳ An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- ↳ An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- ↳ An ability to communicate effectively with a range of audiences
- ↳ An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- ↳ An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- ↳ An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- ↳ An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## CAREER OPPORTUNITIES

### Potential career for Software Engineering

- ↳ Computer Systems Engineer
- ↳ Software Quality Engineer
- ↳ Applications Programmer
- ↳ Design Technician/Specialist (R&D)
- ↳ Systems Programmer
- ↳ Analyst Programmer

## CERTIFICATION PREPARATION

