

Degree Plan

Major related courses

GEIT 1411 – Computer Science I
GEIT 1412 – Computer Science II
GEIT 2421 – Data Structures
GEIT 2291 – Professional Ethics
GEIT 2331 – Mathematical Reasoning
GEIT 3341 – Database I
GEIT 3331 – Computer Organization
GEIT 3351 – Principles of SW engineering
GEIT 4361 – Internship
SOEN 2312 – Web Development
SOEN 2332 – Discrete Structure and Comb. Analysis
SOEN 3351 – Algorithms
SOEN 3311 – Requirements Engineering
SOEN 4361 – Software Engineering
SOEN 4371 – e-Commerce
SOEN 4311 – Software Architecture and Design
SOEN 4312 – Software Testing and Quality Ass.
SOEN 4313 – Software Project Management
SOEN xxxx – 3 Elective courses

Mathematics and Physics related courses

MATH 1412 – Calculus I
MATH 1423 – Calculus II
MATH 1324 – Calculus III
MATH 2313 – Probability and Statistics
PHYS 1411 – Physics for Engineers I
PHYS 1412 – Physics for Engineers II

Program Structure

Course	No. of Courses	Credit Hours
Core	25	66
College	9	29
Major	9	27
Electives	3	10

Commercial Certification

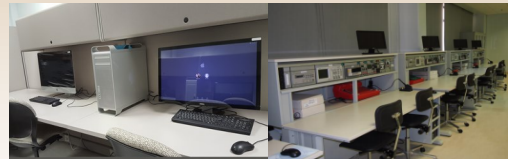


Facilities

Smart classrooms with Blackboard, Smartboard and Banner.



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



Admission Requirements

The College of Computer Engineering & Science provides for minimum standards of academic performance from its students. Using a 4.0 scale for course grades, The College of Computer Engineering & Science requires that students maintain minimum grade point averages (GPA) for various categories of courses consisting of:

- 2.0 GPA in courses from the PMU Core Curriculum.
- 2.0 GPA in degree-specific courses (courses from the Core Curriculum that CCES students must complete beyond the minimum requirement).
- 2.25 GPA in courses required by the college (GEIT prefix).
- 2.5 GPA in courses within the academic discipline.

How To Apply

Read Admission Guide here

<https://www.pmu.edu.sa/pdf/viewer?ID=203>

Fill the application form online

https://www.pmu.edu.sa/admission/apply_now_ads



Prince Mohammad Bin Fahd University

College of Computer Engineering and Science

Software Engineering



Want more info?



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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 are expected to be employed in industry, government, or entrepreneurial endeavors to demonstrate professional advancement through significant technical achievements.
- Graduates conduct themselves ethically and with integrity, upholding social responsibility and promoting sustainability.
- Graduates demonstrate the ability to work effectively as a team member and/or leader in an ever-changing professional environment
- Graduates build upon and adapt knowledge of science, mathematics, and engineering to take on more expansive tasks that require an increased level of self-reliance, technical expertise, and leadership.

Program Outcomes

- a. an ability to apply knowledge of mathematics, science, and engineering.
- b. an ability to design and conduct experiments, as well as to analyze and interpret data.
- c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- d. an ability to function on multi-disciplinary teams.
- e. an ability to identify, formulate, and solve engineering problems.
- f. an understanding of professional and ethical responsibility.
- g. an ability to communicate effectively.
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. a recognition of the need for, and an ability to engage in, life-long learning.
- j. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- k. the ability to analyze, design, verify, validate, implement, apply, and maintain software systems.

Career Opportunities

Potential career for Software Engineering

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

Where some of our graduates will be working

Aramco	Halliburton
Sabco	STC
Oracle	Mobily
Samba	Careem
Toshiba	Yokogawa
Rawabi Holdings	GE
Slumberger	Accenture

