

## **Computer Graphics**

### **Course objectives:**

The course aims to;

- Introduce students to computer graphic systems and concepts:
- Provide students with an in-depth knowledge of decoration and analysis on computer graphics objects.

### **Learning outcomes:**

Upon successful completion of this course, students should be able to;

- Explain computer graphics systems and concepts
- Demonstrate the ability to create and analyze computer graphics objects

### **Course content:**

Topics to be covered in this course include;

- Computer graphics principles, terminologies and applications
- Graphics hardware
- Graphics design
- 2D and 3D transformations
- Graphic algorithms
- Simulating graphics
- Graphics visualisation
- Graphics standards

## **Mobile Computing & Applications**

### **Course objectives:**

The aims of this course are to:

- Introduce students to hardware and software components of mobile computing
- Equip students with an understanding of mobile operating systems as well as mobile multimedia messaging and web services.
- Impart knowledge and skills required to design and build professional mobile applications.

**Learning outcomes:**

Upon successful completion of the course, students should be able to:

- Explain the fundamentals of mobile computing, including the hardware and software components
- Explain the mobile IP stack and mobile web access, technologies and services
- Demonstrate skills in mobile software architecture, operating system platforms and software development tools for mobile software, content and service development

**Course outline:**

Topics to be covered include:

- Fundamentals of mobile terminal hardware
- Radio, DSP, memory and CPU components
- Base station side (BTS) radio interface standards
- The mobile IP stack and the mobile web browsing
- The WAP protocol and location of information
- Principles of multimedia messaging (SMS, MMS) and web services
- Introduction to mobile operating system platforms (OSPs)
- Mobile application user interface
- Software setup in mobile terminals
- Fundamentals of mobile contents
- Mobile web content design
- The mobile Top Level Domain (TLD) initiative