UNIVERSITY OF DELTA, AGBOR, NIGERIA
Faculty of Computing
Department of ICT

ICT 205 – ICT Infrastructure (Credit Units: 2)

Lecturer: Mr Okoh Ogechukwu Lucky
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Office Hours: Monday, Tuesday, Wednesday, Thursday & Friday 8:00 am - 4:00 pm
There are many ways to reach me. There is no substitute for face-to-face communication which often leads to more refined and focused questions resulting in your improved understanding. I strongly encourage you to take advantage of my office hours. Questions during class or immediately after class are always welcomed. Email is an easy way to ask questions outside of class but is not productive as face-to-face communication.

Meeting Time and Place: Mondays, 03:0pmm to 4:00pm, FOC LH 3

Attendance
You are expected to attend every class. If you must miss a class, it is your responsibility to make up for the work you missed. If you are going to be absent from any class, you must please notify the instructor in advance. With 70% Class attendence the student will be eligeble to particpate in the exam.

Methods of Instruction
This syllabus contains an overview of what will be covered in class; for specific information, students are referred to the class web page maintained on the University website. Assignments will be posted on University of Delta LMS or given in the class and should be submitted through University of Delta LMS. Class attendance, doing all your practical and homework will help the borderline cases.

Overview
ICT infrastructure is the backbone of Information technology, these course give the major knowledge behine hardware components and it's application to modern IT world. It also introduce the concept of cyber-physical systems and knowledge of internet of things(IoT). this course also contribute to ths process involved in networking system software and the operationg systems in managing the system.

Objectives
The objectives of this course are to:
(i) Understand ICT infratructure;
(ii) Understand cyber-physical systems;
(iii) Understand the hardware components;
(iv) Understand network and concepts of network protocol;
(v) Identifying system software and the operating systems managing the architechtures;

Learning outcomes
Upon completion of this course, should be able to:
(i) Explain the components involve in ICT infrastructure ;
(ii) Explain cyber-physical systems;
(iii) Describe the major tNetworks and   protocols;
(iv) explain internet of things based on current trends

Course Contents
ICT hardware components and organisation: the creation, communication and processing of digital signals using sensors and activators, processors and storage. Cyber-physical systems: process control, the internet of things, robotics, biometrics, autonomous vehicles, GPS. Network and internetwork concepts and protocols, wireless and mobile computing, cloud and distributed systems. Systems software and operating systems managing the architecture.

Lecture Schedules

Week	Content	Lecture notes/slides
1.	Introduction to ICT infrastructure and it's significant	Lecture notes
2.	Communication and processing of digital signals	Lecture notes
3.	Uses of sensors, activators processors In communication	Lecture notes
4.	Hardware storage	Lecture notes
5.	Test	Lecture notes
6.	Introduction to Cyber-physical systems	Lecture notes
7.	Introduction to process control and Internet of things	Lecture notes
8.	Introduction to Robotics and Biometric	Lecture notes
9.	Features of autonomous vihecles and it's application	Lecture notes
10.	Test	Lecture notes
11.	GPS. Network and internetwork concepts and protocols	Lecture notes
12.	wireless and mobile computing, cloud and distributed systems	Lecture notes
13.	Systems software and operating systems managing the architecture	Lecture notes
14.	Revisions	Lecture notes
15.	Final Exam	

Examination schedule
- Attendance
- Homework
- Class Test
- Practical exercises
- End of Semester Exam

Practical Exercises
1: Identifying common hardware.
2: Network pinging and IP config
3: Computer connections using dedicated Ips.
4: Intruduction to cloud Networking
5: System design and implimentation

Grading
   - Homework: 10% of grade
   - Practical: 10% of grade
   - Accessment: 10% of grade
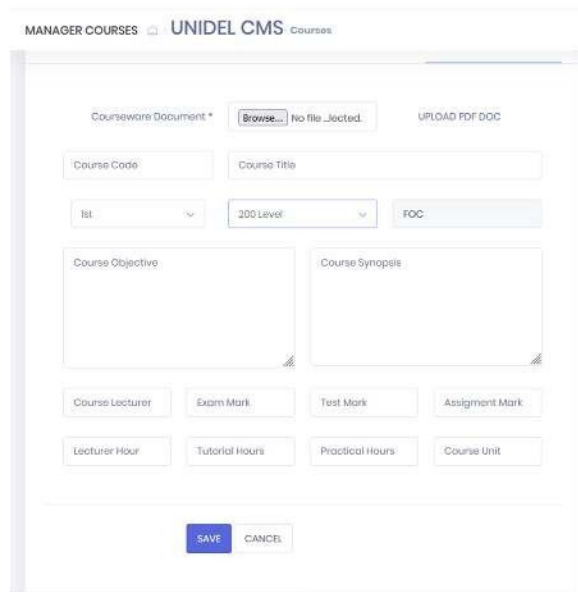   - Final Exam: 70% of grade

Text & References
Prof. Kingsley Chiwuike Ukaoha (2022),COMPUTER HARDWARE .
Raj Rajkumar ,Dionisio de Niz ,Mark Klein(2017), Cyber-physical systems

Student Conduct
All students enrolled at the University shall follow the tenets of common decency and acceptable behaviour conducive to a positive learning environment. The code of student conduct is described in detail in the student handbook or University website.

Academic Honesty

"All students enrolled at the University shall follow the tenets of common decency and acceptable behaviour conducive to a positive learning environment." It is the policy of the University, that no form of plagiarism or cheating will be tolerated. Plagiarism is defined as the deliberate use of another's work and claiming it as one's own. This means ideas as well as text or code, whether paraphrased or presented verbatim (word-for-word). Cheating is defined as obtaining unauthorised assistance on any assignment. Proper citation of sources must always be utilised thoroughly and accurately. If you are caught sharing or using other people's work in this class, you will receive a 0 grade and a warning on the first instance. A subsequent instance will result in receiving an F grade for the course, and possible disciplinary proceedings. If you are unclear about what constitutes academic dishonesty, ask.