



جامعة الحكمة، إلورن - نيجيريا

AL-HIKMAH UNIVERSITY, ILORIN NIGERIA
FACULTY OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
B.Sc. Computer Science
2019/2020 ACADEMIC SESSION
RAIN SEMESTER
COURSE OUTLINE FOR

COURSECODE: CMP 420

COURSE TITTLE: Computer Networks and Communications

CREDIT UNIT: 3 Status: Core

26 LECTURE PERIODS (10-12noon Tuesdays & 2-3 pm Thursdays)

Course Lecturer: Alimi O. Maruf (Ph.D.)

Lecture Period	Date	Topic
1	25/02/2020	Introduction <ul style="list-style-type: none">- Information transfer- Suitable medium- Communication Components- Sender, Encoder- Channel- Decoder and Destination
2	27/11/2020	Practical: Physical components and their connections
3	03/03/2020	Need to Specify Standards <ul style="list-style-type: none">- Character set- Binary, Octal and- Hexadecimal
4	05/03/20	Practical: Physical components and their connections continue
5	10/03/2020	Transfer of Data between Devices <ul style="list-style-type: none">- Serial Data Transfer- Parallel Data Transfer- Asynchronous Data Transfer- Synchronous Data Transfer
6	12/03/20	Practical: Physical components and their connections continue
7	17/03/2020	Test (CAT 1) Theory
8	19/09/2020	Practical
9	24/03/2020	RS-232 Serial Interface

10	26/03/2020	<ul style="list-style-type: none"> - DTE & DCE - RS-232 Pins - Plug and Socket - Parity bits and Complete Data Stream - Handshaking and Data Communication Software <p>Practical: Physical components and their connections continue</p>
11	31/03/2020	<p>Introduction to Networking</p> <ul style="list-style-type: none"> - LAN - WAN - MAN - CAN - Hybrid - Radio and Satellite Communication
12	02/04/2020	<p>Practical: How to Crimp Straight Link Cable</p>
13	07/04/2020	<p>Network Design</p> <ul style="list-style-type: none"> - Peer Network - Single Server - Multi Server - Enterprise Network - Peer to Peer / Server based networks Comparison
14	09/04/2020	<p>Practical: How to Crimp Cross link cable</p>
15	14/04/2020	Test (CAT 2) Theory
16	16/04/2020	Practical
17	21/04/2020	<p>WAN / Switching</p> <ul style="list-style-type: none"> - Circuit switching - Message switching - Packet Switching - Satellite Communication and Merits of networking
18	23/04/2020	<p>Practical: Software Configuration to be able to communicate to one another using Wired System</p>
19	28/04/2020	<p>Channel</p> <ul style="list-style-type: none"> - Characteristics of Channel - Allocation of Channel (SDM, FDM and TDM) - Bounded Media (Twisted, Coaxial and Fiber Optic) - Unbounded Media (Radio, Microwave and Satellite) - Criteria for choosing channel for communication
20	30/04/2020	<p>Practical: Software Configuration to be able to communicate to one another using Wireless System</p>
21	05/05/2020	<p>Transmission Mode /Topology</p> <ul style="list-style-type: none"> - Simplex, Half-duplex and Full-duplex - Star, Bus, Ring etc. - Internet/Intranet
22	07/05/2020	<p>Practical: Connection of Student systems and sharing of folders and files.</p>
23	12/05/2020	Revision

24	14/05/2020	
25	19/05/2020	Test (Final CAT) Theory
26	21/05/2020	Practical