



# نيجيريا جامعة الحكمة، إلورن،

AL-HIKMAH UNIVERSITY, ILORIN, NIGERIA

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....a tradition of learning for wisdom and morality

## FACULTY OF NATURAL AND APPLIED SCIENCES DEPARTMENT OF COMPUTER SCIENCE

BSc Computer Science

2023/2024 Session

### COURSE OUTLINE

**COURSE CODE: CMP403**

**COURSE TITLE: Software Engineering**

**CREDIT UNITS: 4**

**LECTURE DAY(S): Thursdays; 2pm – 4pm, Fridays; 9am – 10am**

LECTURE PERIOD	TOPIC	COURSE LECTURER(S)
Week 1	Introduction to Software Engineering <ul style="list-style-type: none"><li>✓ Definitions of Software, Engineering</li><li>✓ IEEE definition</li><li>✓ Software Ethics</li></ul>	R.D. AZEEZ
Week 2	Historical perspective and Evolution <ul style="list-style-type: none"><li>✓ Software engineering principles</li><li>✓ Software Crisis<ul style="list-style-type: none"><li>➤ Code-and-Fix</li></ul></li><li>✓ The Need for Software Engineering</li><li>✓ Importance of software engineering</li></ul>	R.D. AZEEZ
Week 3	Characteristics of a Good software <ul style="list-style-type: none"><li>✓ Operational</li><li>✓ Transitional</li><li>✓ Maintainable</li></ul>	R.D. AZEEZ
Week 4	Software Engineering Vs Computer Science Software engineering types <ul style="list-style-type: none"><li>✓ Heterogeneity</li><li>✓ Business and Social change</li><li>✓ Security and Trust</li><li>✓ Scale</li></ul> Types of Application and Software products <ul style="list-style-type: none"><li>✓ Generic</li><li>✓ Customized</li></ul>	R.D. AZEEZ
Week 5	Types of Systems <ul style="list-style-type: none"><li>✓ Embedded</li><li>✓ Support Environment</li><li>✓ Information System</li><li>✓ Sensor-based Data Collection System</li></ul>	R.D. AZEEZ

	Software Development Cycle an introduction	
Week 6	Overview of Waterfall model/method Types <ul style="list-style-type: none"> <li>✓ Classical/Traditional</li> <li>✓ Iterative</li> </ul>	R.D. AZEEZ
Week 7	<b>Continuous Assessment</b>	
Week 8	Software Requirement Specification <ul style="list-style-type: none"> <li>✓ Gathering and analyzing software requirements</li> <li>✓ Use case modelling and requirement validation</li> </ul> Software Design	R.D. AZEEZ
Week 9	Software Design <ul style="list-style-type: none"> <li>✓ Understanding the SRS for design</li> <li>✓ User-Friendly Interface</li> <li>✓ Software –User Interaction</li> <li>✓ Learning Experience Enhancement</li> </ul> Structural and Behavioral Design	R.D. AZEEZ
Week 10	Coding, Testing and Maintenance Project Management	R.D. AZEEZ
Week 11	<b>Continuous Assessment</b>	
Week 12	<b>Revision</b>	
Week 13	<b>Revision</b>	
Week 14	<b>Examination Period</b>	
Week 15	<b>Examination Period</b>	