KIBABII UNIVERSITY
SCHOOL OF COMPUTING AND INFORMATICS
Department of Computer Science & Information Technology

COURSE OUTLINE

Semester ……I……….Academic Year……2020/2021……………….

Course Code: *BIT 314/ CSC 311*

Course Title: *Software Engineering*

Course Lecturer*:* *Daniel Khaoya Muyobo, +254723606988 & dmuyobo@kibu.ac.ke*

Lecture Hours: 3hrs

Consultation: *Monday 2-5pm*

Course Objectives:

At the end of the course, the student should be able to:

- Understand what software engineering is and why it is important
- Understand the concepts of software lifecycle models
- Understand the differences between functional and nonfunctional software requirements
- Understand the requirements engineering activities and the relationships between the activities
- Understand the levels of testing

Course Content:

Week	Topic
1	Introduction • The evolving role of software • Definition of software engineering • Software characteristics • Terminologies
2-3	Project planning and management • Project Scope • Project Schedule • Resource Requirement • Project cost estimation • Project Quality and • Project Risk Management
4-5	Software lifecycle models • Waterfall model • Incremental process model • Evolutionary process model • Agile process model • Selection of a lifecycle model
6-7	Software requirements: Analysis and Specification • Requirements engineering • Types of requirements • Requirements elicitation • Requirements analysis • Requirements documentation
8	CAT 1
9 – 10	Software project planning and management • Size estimation • Cost estimation • Software risk management
11	Software design • Definition • Modularity • Function oriented design • Object oriented design
12	CAT 2
13	Software testing • Strategic approach to software testing • Functional testing • Structural testing • Levels of testing • Testing tools

14	Revision

Course Methodology:

Lectures, demonstrations and Class discussions

Course Assessment

CATS, ASSIGNMENTS…………………………………….30%

EXAMINATION……………………………………………….70%

Suggested Course References

1. Pressman R. S., (2010). Software Engineering. A Practitioners Approach. McGraw Hill International.
2. Sommerville I., (2011). Software Engineering. Ninth Edition. Addison-Wesley.
3. Aggarwal, K. K. and Singh Y. (2008). Software Engineering (3rd Edition). New Age International (P) Limited Publishers.

Lecturer:……………………………….…… Sign.:……………Date………………………….

APPROVAL

…………………………………………………..   …………………….

COD   *DATE*