BSE1200; Principles of Software Development I (4CU)

Course Objectives. Upon successful completion, the student should be able to: (i) Demonstrate mastery of the software development process, describing core activities at various levels of software development;(ii)Perform requirement analysis of a simple software systems; (iii) Manage a team of developers;(iv)Demonstrateknowledgeofatleastonetoolofsoftwaredocumentation;(v)Workin a team; and (vi) Design, develop, test and valid a software product.

Course Content, Topics covered includes: Introduction: What is software engineering? Phases in the development of software. Software Management: Planning and controlling a software development project. Requirements analysis: Requirements specification, humans a sin formation sources and tools for documenting there quirements (SADT, PSL/PSA, Ada-based analysis methods).Software design: Abstraction, modularity, information hiding, design methods, design documentation. Testing: Test objectives, verification and validation, manual test techniques, techniques for functional and structural testing.

References

•Balancing Agilityand Discipline: AGuide forthePerplexed; byBarry Boehm and Richard

Turner, Addison Wesley Professional, 2003, ISBN-10:0321186125.

•201 Principles of Software Development, by AlanM. Davis, McGraw-Hill, March, 1995, ISBN-

10:0070158401