BSE2103; Principles of Programming II (4CU)

Course Objectives; Upon successful completion the students should be able to: (i) Demonstrate mastery of core programming concepts, like program structure and control, Application Program Interface(API), memory management among others; (ii) Demonstrate sufficient understanding of object oriented programming; (iii) Develop complex web and stand alone applications; (iv) Work with an Integrate Development Kit like NETBEANS with minimal difficulties; and (v) Differentiate the various programming languages (i.e., in terms of their strength and weakness)

Course Content; Formal definition of structures: formal description of syntax and semantics; Meta-Language; Comparative studies of programming languages and language design concepts: structural organization, structures for names, data abstractions, concurrency; Functional, object- oriented, and logic programming languages and concepts; Language design principles.

References

•Concepts of Programming Languages, by R.W. Sebesta, 5thEdition, Addison Wesley, 2002.

•Programming Languages: Concepts and Constructs. By R. Sethi, 2nd Edition. Addison

Wesley. 1996.

•Introduction to Java Programming: Comprehensive Version, by Y. Daniel Liang, Prentice

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