## **Course Syllabi**

- Course Number:
   COP 2210

   Course Name:
   Computer Programming I
- 2. Credits and contact hours: 4
- 3. <u>Instructor's or course coordinator's name</u>: Janki Bhimani
- 4. <u>Text book, title, author, and year</u>: <u>Title</u>: Big Java <u>Author</u>: Cay Horstmann <u>Year</u>: Latest Ed.
  - a. other supplemental materials:
- 5. Specific course information:
  - a. <u>brief description of the content of the course (catalog description)</u>:

A first course in computer science that uses a structured programming language to study programming and problem solving on the computer. Includes the design, construction and analysis of programs. Student participation in a closed instructional lab is required. This course will have additional fees.

b. prerequisites or co-requisites:

MAC 1140 or MAC 1147 or MAC 2233 or MAC 2311 or Advisor's permission Includes a closed-lab component

- c. <u>indicate whether a required, elective, or selected elective (as per Table 5-1) course</u> <u>in the program</u>: Required
- 6. <u>Specific goals for the course</u>:
  - a. <u>Specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic</u>:
    - 1. Be familiar with the concepts of Objects & Classes

- 2. Master the fundamental Java data types
- 3. Master the Java selection and iteration constructs
- 4. Be familiar with arrays & ArrayLists
- 5. Master using String and Wrapper classes
- 6. Be familiar with reading and writing of text files
- 7. Master analyzing problems and writing Java program solutions to those problems using the above features
- 8. Be exposed to software testing and interactive debugging
- 9. Master complex Boolean expressions in selection and iteration constructs
- 10. Master good programming practices
- 11. Master methods, method parameters, and parameter passing
- b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course:

b-c-i

7. Brief list of topics to be covered:

Object-Oriented Design and Programming – I/O (JOptionPane, Text files) – Fundamentals of Java data types – Control Structures – Arrays and ArrayLists.