INTRODUCTION AND REVIEW

Course: Object Oriented Programming (CS F213)

PROF. ANITA AGRAWAL

COURSE INFORMATION

Course ID: CS F213- Object Oriented Programming

Instructor In-charge- Prof. Anita Agrawal

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Refer to General Handout appended to Time-Table

PREREQUISITES

Successful completion of “ CS F111: Computer Programming”

LEARNING OUTCOMES

Upon successful completion of this course, students will have a thorough understanding of object oriented analysis and design process, and will be able to demonstrate object-oriented concepts in Java programming language.

BOOKS AND REFERENCE MATERIAL

Textbooks-

- T1: The Complete Reference Java J2SE, 5th Edition, Herbert Schildt, Tata McGraw Hill and Publishing 2005
- T2: Objects First with Java: A Practical Introduction Using BlueJ, David J. Barnes and Michael Kolling, Pearson Education, 5th Edition, 2012.

Reference Material

- R1: Head First Java, Bert Bates, O'Reilly, 2nd Edition, 2005.
- R2: Core Java Volume I - Fundamentals, Cay Horstmann, Pearson Education, 8th Edition 2008

COURSE PLAN AND MODULES

- ☐ Introduction and review
- ☐ Module 1: An Overview of OOP
  - ☐ Class definition and Object
  - ☐ Principles of OOP
  - ☐ Introduction to Java program syntax
  - ☐ Compiling and execution of Java program
- ☐ Module 2: An Overview of Java
  - ☐ Primitive data types
  - ☐ Type conversion and casting
  - ☐ Arrays, Operators, and Control statements
  - ☐ Minor differences between C and Java
- ☐ Module 3: Introducing Classes
  - ☐ Classes and Objects
  - ☐ Constructors and Methods
  - ☐ Garbage collection
- ☐ Module 4: UML, Sequence, and State diagrams
- ☐ Module 5: Deeper into Classes
  - ☐ Method overloading
  - ☐ Argument passing
  - ☐ Access specifiers
  - ☐ Static and final
  - ☐ Nested and inner classes

- ❑ Module 6: String Class and Variable Length Arguments

- ☐ Module 7: Inheritance
  - ☐ Super and abstract classes
  - ☐ Instance variable hiding
  - ☐ Multilevel hierarchy
  - ☐ Method overriding

- ☐ Module 8: Packages
  - ☐ Importing and Creating packages
  - ☐ Access protection
  - ☐ Interfaces

- ❑ Module 9: Exception Handling
  - ☐ Exception types
  - ☐ Try and catch, Nested try statements
  - ☐ Java's built-in exceptions
  - ☐ Keywords: throw, throws, and finally

- ☐ Module 10: Threads
  - ☐ Creating new threads
  - ☐ Thread synchronization

- ☐ Module 11: File and I/O
  - ☐ File handling in Java
  - ☐ I/O Classes and Interfaces
  - ☐ Stream classes

- ☐ Module 12: Advanced Topics in OOP and Java

EVALUATION SCHEME

Component	Type	Weightage Percentage (marks)out of 200	Duration	Date, day & Time
Mid-sem Exam	Closed Book	30% (60)	1.5 hours	16/03/2019, Saturday, 2 to 3:30 pm
Regular Labs	Open Book	30 % (60)	2 hours	Thursday, 10-11 hr.
Comprehensive Exam	Closed Book	40% (80)	3 hours	14/05/19, Tuesday (FN),

Best 8 out of 10 evaluated labs shall be considered for grading.

CHAMBER CONSULTATION HOUR

Monday 3rd hr.

MAKE-UP POLICY

1. Make-ups shall be allowed only in genuine cases, on a case-by-case basis and on proper justification. Prior permission from the IC is necessary.
2. No make-up for the lab sessions.
3. Missing of any one of the three components may be graded as **NC**, despite of satisfying minimum necessary criteria in other components.

MALPRACTISE

Any attempt of cheating or plagiarism in tests or labs will attract disciplinary committee action.

OTHER USEFUL DETAILS

- All notices concerning this course will be displayed on moodle course page.

- Important notices/announcements will be mailed to you directly in addition to posting on moodle.