Course Title	**Object Oriented Programming**
Course Code	**CC-211**
Credit Hours	3
Category	Computing core
Prerequisite	CC-112: Programming Fundamentals
Co-Requisite	None
Follow-up	CC-213: Data Structures and Algorithms
Course Description	**Introduction**: Object oriented design, history and advantages of object-oriented design. **Object Oriented Programming:** Terminology and features, classes, objects, data encapsulation, constructors, destructors, access modifiers, const vs non-const functions, static data members & functions, function overloading, operator overloading, identification of classes and their relationships, composition, aggregation, inheritance, multiple inheritance, polymorphism, abstract classes and interfaces. **Generic Programming:** Concepts, function & class templates, standard template library. **Object Streams:** Data and object serialization using object streams. **Exception Handling**.
Text Book(s)	1. H. M. Deitel, P. J. Deitel, C++ How to Program, 5th Ed., Prentice Hall, 2005, ISBN: 0-13-185757-6.
Reference Material	1. R. Lafore, Object-Oriented Programming in C++, 4th Ed., Sams publishing, 2002, ISBN: 0-672-32308-7. 2. Victor Shtern, Core C++ A Software Engineering Approach, 1st Ed., Prentice Hall PTR, 2000, ISBN: 0-13-085729-7. 3. Stephen Parata, C++ Primer Plus, 5th Ed., Sams Publishing, 2005, ISBN: 0-672-32697-3. 4. Bjarne Stroustrup, The C++ Programming Language, 4th Ed., Addison Wesley, 2013, ISBN: 0-321-56384-0.