

Course Title	Object Oriented Programming Lab
Course Code	CC-211L
Credit Hours	1
Category	Computing core
Prerequisite	CC-112: Programming Fundamentals
Co-Requisite	None
Follow-up	CC-213: Data Structures and Algorithms
Course Description	Implementation: the concepts studied in “CC-211 Object Oriented Programming”, Review: Data Driven Programming. Classes and Objects: Defining Classes and Object Initialization, setter/getter, Constructor/Destructor. Resource Management: Allocation/De-Allocation, const data members and function. Composition: Aggregation, Friend function/classes, Generalization, Multilevel/Multiple Inheritance, Runtime Polymorphism, Singleton/Proxy/Adapter Pattern, Ad Hoc Polymorphism. Templates. Stream I/O. File Processing. 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.