

UTA018 Object Oriented Programming

EST Syllabus

- **Inheritance:** Friend function and Inheritance, Overriding member function, virtual base class, Abstract class, Constructor and Inheritance, Destructor and Inheritance, Advantage and disadvantage of Inheritance.
- **Operator Overloading and Type Conversion:** Syntax of operator overloading, Overloading Unary operator and Binary operator, Overloading arithmetic operator, relational operator, Overloading Unary operator and Binary operator using friend function, Data conversion, Overloading some special operators like (), [].
- **Polymorphism:** Classification of Polymorphism, Compile time and Run time Polymorphism, Pointers to derived class object, Virtual functions, Pure virtual functions.
- **File handling:** Formatted I/O, Hierarchy of file stream classes, Opening and closing a file, Working with multiple files, file modes, file pointers, Text vs. Binary Files.
- **Templates:** Need of template, Function templates, Function template with non-type parameter, Overloading function templates, Class templates, Class template with non-type parameter.
- **Exception Handling:** Exception handling mechanism, Multiple Catch Blocks, Catch All exceptions, Throw an exception, Exception Specification.
- **Standard Template Library:** Fundamental idea about string, iterators, hashes and other types, The String and Vector classes vs. C-style pointers.