

**Welcome to CoreCode Programming Academy's
Masterclass in C++ - Batch 24**

1) Modern Object Oriented Programming Language - In Depth

- i) Syntax**
- ii) Semantics/Use Cases**
- iii) Memory Management**

```
class Interface{
    public:
        virtual void f() = 0;
};

class Implementation: public Interface{
    public:
        void f() { std::cout << "In Implementation::f()" << std::endl; }
};

int main(void)
{
    Interface* pInterface = new Implementation;
    pInterface->f();
    delete pInterface;
    pInterface = 0;
    return 0;
}
```

iv) Type System Analysis

2) Programming Logic - Data Structure And Algorithms

**Four Linked Lists, Stack, Queue, Deque, Priority Queue, Graph, Tree
(Generic Versions)**

3) Domain Specific Libraries

**STL
GUI PROGRAMMING Using Qt**

Programming Language:

- a) Procedural Programming b) Object Based Programming**
- c) Object Oriented Programming d) Generic Programming**
- e) Functional Programming f) Aspect Oriented Programming**
- g) Metaprogramming**