Objectives:
To introduce the various terminology of object oriented programming.

Reading Assignment:

Contents:
Introduction, Object Orientation, Java v/s C++ 1.5 hr.
OO Definitions, Class - structure and definition 1.5 hr.
CS445: WEEK 1

Introduction and Reading Assignment
Where we are going?
  Software getting larger
    Problems - Costs? Feature demands? QA?
  Hardware getting faster
    Problems - Too many features? Too large code?

Textbook reference - pages 16-48 -10min / 10min

Object Orientation
  Definition / Understanding
  Goals - Quality - Reusability - Cost Control -20min / 30min

Java & C++ v/s C, etc.
  OO truly possible v/s Programmer’s choice
  Capability for re-usability -10min / 40min

Java v/s C++
  Cross platform issue
  Web based development (C# addressing?)
  Multi-Threading issue as a language as opposed to using OS
  Truly OO -20min / 60min

OO Start
  Abstraction - Definition and understanding
  Generalization - Definition and understanding
  What v/s How - understanding
  Part v/s Whole - understanding -30min / 90min

Class
  Data - attributes
  Methods / Function - Behaviors
  Data Hiding - Private v/s Public
    C++ v/s Java - friend class notion -20min / 110min

Class Structure
  Inheritance
    Understanding (language based)
    Code Example
      Java v/s C++ - multiple inheritance
      Understanding - Pros v/s Cons -30min / 140min
  Polymorphism
    Definition
    Understanding
    Usage -10min / 150min