

CSCI 185 Computer Programming II

Fall 2020

Module 3 Lab 2: Integration of Inheritance and Composition

Goal: In this lab, we will practice how to apply both the inheritance and composition concepts to write a Department class.

1. Implement the Department Class.

Implement the following class:

```
public class Department{
    /* The basic feature of a department */
    private String deptName;
    private int numMajors;
    private Teacher[] listTeachers; //inherits from Person class
    private Student[] listStudents; //inherits from Person class

    /* Construct a department object (at least TWO constructors) */

    /* Accessors and mutators (one pair per each feature) */

    /* toString method */

}
```

Fill in the blanks above according to the guidelines in the comments. Also write a main method that will use one of constructors to create two Department objects. Your main method should print out the details of these two Departments (each department with at least 5 students and 3 teachers).