

**<22/SP-COP-2800-72035> Java Advanced**

**<Assignment 10-9>**

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# Document Version Control

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# Document Purpose

The purpose of this document is to define the Course class and discuss how to implement and use it.

# Technical Specifications

## Purpose of Technical Implementation

The purpose of the Course is to create an object that will be used to store information about a course, including the names of each student. The following information will be attributed to the newly created object: name of the course. The Course class has the ability to view the name of every student enrolled, drop student, add student, display course name, display the amount of enrolled students, and clear all enrolled students at once. The Course class is independent.

## Technical Implementation Components

I created the Course class. The Course class has three properties (courseName, students, numberOfStudents) and multiple methods (addStudent, getStudents, getNumberOfStudents, getCourseName, dropStudent, clear).

**Properties**

1. courseName: the string passed through the constructor
2. students: this is a string array initially consists of 100 elements
3. numberOfStudents: displays the amount of students where the array element is not “Null”

**Methods**

1. addStudent(student): takes a string as an argument, this will be the student's name and will be added to the array of enrolled students.
2. getStudents(): this displays all students
3. getNumberOfStudents(): displays the amount of students where the array element is not “Null”
4. getCourseName(): displays course name that was passed as a constructor
5. dropStudent(student): takes a string as an argument, this will be the student's name and will be removed from the array of enrolled students.
6. Clear(): completely removes all elements of the students array and creates one new array that is empty and prepared for students to be added.

**Constructors**

The developer can create an instance of the Course class one way and requires the name of the course to be passed as an argument.

1. Course course\_variable = new Course (String courseName);

## Technical Implementation Pseudocode

Create instance of the stock class using the first type of constructor

Provide argument to the constructor to name the course

Use the method to add a student to the course

Provide argument to the method to name the student

Use method to drop a student from the course

Provide argument to the method to specify the student’s name

Create a String array variable using the course object getStudents method

Use the clear method to remove all students from the named course

End