# CS151 Course Assessment Report

**Author: Semester:**

## Part 1: Course Summary

### 1. Course Catalog Description:

|  |  |
| --- | --- |
|  | **Course Catalog Description** |
| **Course Description** | Design of classes and interfaces. Value and reference semantics. Object-oriented design methodologies and notations. Design patterns. Reflection and serialization. Exception handling. Graphical user interface programming. Frameworks and components. Multithreading. Required team-based programming assignment (required as of Fall, 2007). |
| **Prerequisites** | Math 42, CS 46B, and CS 49J (or equivalent knowledge of Java) (with a grade of "C-" or better in each) or instructor consent. |

### 2. Course Learning Objectives:

|  |  |
| --- | --- |
| **Item** | **Objective Description** |
| CLO1 | Introduce core UML concepts |
| CLO2 | Introduce a simplified OO analysis and design methodology |
| CLO3 | Present the concept of design pattern |
| CLO4 | Present the concept of a software framework |
| CLO5 | Make students proficient in the use and creation of interfaces and inheritance hierarchies |
| CLO6 | Make students proficient in the Java type system |
| CLO7 | Introduce threads and thread safety |
| CLO8 | Introduce a GUI toolkit, including basic widgets and the event handling mechanism |

### 3. Course Details:

See the course syllabus: <https://www.cs.sjsu.edu/private/pse/syllabi/CS151.html>

### 4. Program Outcomes Enabled/Assessed:

|  |  |
| --- | --- |
|   | **BSCS (BSSE) Outcomes Enabled** |
| **Program Learning Outcome (PLO)** | **1** | **2** | **3** | **4** | **5** | **6** |
| CS 151 | 2 | 3 |  |  | 3  |  3 |

An entry in a cell indicates that the course enables the corresponding outcome. The number (1, 2 or 3) indicates the level of achievement expected in the Course, 1 indicating Beginner, 2 Intermediate, and 3 Advanced.

Outcomes in parentheses indicate the corresponding BSSE program outcome. A complete list of BSCS outcomes can be found at: <http://www.sjsu.edu/cs/assessment/bscs/outcomes/>. A list of BSSE outcomes can be found at: <http://cmpe.sjsu.edu/bsse/outcomes/GEOutcomes/>

Bold face entries indicate the corresponding BSCS outcome is assessed for the course. Underlined entries indicate the corresponding BSSE outcome is assessed for the course.

Outcomes are assessed according to the following two year schedule:

|  |  |
| --- | --- |
| Semester | Outcomes Assessed |
| Spring 1 | 3, 4 |
| Fall 1 | 6 |
| Spring 2 | 1 |
| Fall 2 | 2, 5 |

## Part 2: Assessment Results

### BSCS Outcome 2: Graduates of the program will have an ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

### (BSSE outcome 2: an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors)

|  |  |  |  |
| --- | --- | --- | --- |
| **Performance Indicator** | **1** | **2** | **3** |
| **beginning** | **satisfactory** | **exemplary** |
| **Design and implement a reusable program using polymorphism concept. Show the program works for different objects according to polymorphism. (assessed with an exam question)** | Does not know how to apply polymorphism concept to the problem | Produced a correct reusable program, but failed to show that it runs for different objects according to polymorphism | Produced a correct reusable program and successfully showed that it runs for different objects according to polymorphism |
| # CS students |  |  |  |
| # SE students |  |  |  |
| # Other students |  |  |  |
|   |   |   |   |
| **Design and implement a program based on the MVC model. Show the model, view, and controller parts of the program works as expected. (assessed with an exam question)** | Does not know how to use the MVC model | Produced a working program based on the MVC model with a few errors in assigning responsibilities to model, view and/or controller parts of the program | Produced a working program based on the MVC model and successfully showed the model, view, and controller parts of the program work as expected |
| # CS students |  |   |  |
| # SE students |  |  |  |
| # Other students |  |  |  |

### BSCS Outcome 5: Graduates of the program will have an ability to function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.

### (BSSE outcome 5: an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives)

|  |  |  |  |
| --- | --- | --- | --- |
| **Performance Indicator** | **1** | **2** | **3** |
| **beginning** | **satisfactory** | **exemplary** |
| **Teamwork (assessed with a team project survey)** | Team did not collaborate well. | Team collaborated well with only a few occurrences of communication breakdowns. | Team collaborated well.  |
| # CS students |  |  |  |
| # SE students |  |  |  |
| # Other students |  |  |  |
|   |   |   |   |
| **Functionality (assessed with team project)** | Program does not run and/or does not satisfy most of the requirements. | Program runs and satisfies most of the requirements. | Program runs and satisfies all of the requirements. |
| # CS students |  |  |  |
| # SE students |  |  |  |
| # Other students |  |  |  |
|   |   |   |   |
| **Final Documentation (assessed with team project report)** | Poor documentation | Presents all required items at the acceptable level of quality | Presents all required items. Clear, consistent, accurate, sufficient and well organized |
| # CS students |  |  |  |
| # SE students |  |  |  |
| # Other students |  |  |  |

## Part 3: Assessment Conclusions, Findings, and Recommendations

### BSCS Outcome 2 (BSSE Outcome 2) conclusions

### BSCS/BSSE Outcome 5 conclusions

### Findings and Recommendations