**HACETTEPE UNIVERSITY**

**COMPUTER SCIENCE AND ENGINEERING**

**BBM 486 DESIGN PATTERNS**

**Class Time:** Friday’s 09:00 – 11:50

In this course, we will explore design patterns in object-oriented programming. Topics covered include the rationale and benefits of object-oriented design principles, classification of design patterns, and examination of commonly used design patterns. This is a practical, hands on programming class to encourage developing better software engineering skills for undergraduate students. We will review and discuss lots of examples of how certain design patterns are implemented.

**Pre-requisite**

The students are expected to have an intermediate-level Java programming background, as all the examples in class will be in Java.

**COURSE OUTLINE**

Introduction to Design Patterns

The Strategy Pattern

The Observer Pattern

The Decorator Pattern

An Economics View of Software Engineering

The Factory Pattern

The Singleton Pattern

The Command Pattern

The Adapter and Façade Patterns

**Exams and Grading**

* Mid-term Exam: 30%
* Group Project: 30%
* Final Exam: 40%

Attendance is subject to University rules and regulations

Students are highly advised to attend regularly.

Reading materials will be provided as required throughout the course.