CEN206 Object-Oriented Programming

Final Exam Week

Author: Asst. Prof. Dr. Ugur CORUH

List of Figures

List of Tables

CEN206 Object-Oriented Programming

Week-16 (Final Exam)

Spring Semester, 2025-2026 Download DOC-PDF[1], DOC-DOCX[2], SLIDE[3]

Week-16 Overview

Final Exam

Module	Topic
A	Final Exam Information
B	Exam Topics Overview
C	Good Luck & Contact Information

Module A: Final Exam Information

Exam Details and Guidelines

Exam Date and Location

- **Exam Date:** To be announced by the registrar's office
- **Exam Time:** To be announced by the registrar's office
- **Exam Location:** To be announced by the registrar's office
- **Duration:** 90 minutes

Please check the official exam schedule published by the registrar's office for the exact date, time, and location.

---

[1] ce204-week-16-final.en.md_doc.pdf
[2] ce204-week-16-final.en.md_word.docx
[3] ce204-week-16-final.en.md_slide.pdf

Exam Format

- **Type:** Written exam (pen and paper)
- **Question Types:**
  - Multiple choice questions
  - Short answer questions
  - Code reading and analysis
  - Code writing (design patterns, OOP principles)
  - UML diagram drawing

Materials Allowed / Not Allowed

Allowed:

- Pen, pencil, eraser
- Student ID card (required)

NOT Allowed:

- Electronic devices (phones, tablets, laptops, smartwatches)
- Books, notes, or printed materials
- Calculators (unless explicitly stated)
- Any form of communication device

Exam Scope

- The final exam covers **all topics from Week 1 through Week 15**
- Emphasis will be placed on topics covered after the midterm exam
- The exam is **cumulative** – earlier topics may appear in the context of later topics

---

Module B: Exam Topics Overview

Key Topics and Their Weights

Topics Covered in the Course

Week	Topic	Weight
1-2	OOP Fundamentals (Encapsulation, Inheritance, Polymorphism, Abstraction)	High
3	Interfaces, Type System, Lambda Expressions	Medium
4	UML and Modeling (Class Diagrams, Sequence Diagrams)	Medium
5	PlantUML	Medium
6-7	UMPLE (Model-Driven Development, State Machines)	Medium
9	Design Patterns – Creational (Factory Method, Abstract Factory, Builder, Prototype, Singleton)	High

Week	Topic	Weight
10	Design Patterns – Structural (Adapter, Bridge, Composite, Decorator, Facade, Flyweight, Proxy)	High
11	Design Patterns – Behavioral (Chain of Responsibility, Command, Iterator, Mediator, Memento, Observer, State, Strategy, Template Method, Visitor)	High
12	Code Smells and Refactoring Fundamentals	Medium
13	Refactoring Techniques (66 techniques)	Medium
14	Case Studies – Design Patterns in Practice	Medium

Key Concepts to Review

- **OOP Pillars:** Encapsulation, Inheritance, Polymorphism, Abstraction
- **SOLID Principles:** Single Responsibility, Open/Closed, Liskov Substitution, Interface Segregation, Dependency Inversion
- **Design Patterns:** Know the intent, structure, and when to apply each pattern
- **UML Diagrams:** Be able to read and draw class diagrams and sequence diagrams
- **Code Smells:** Identify common code smells and suggest appropriate refactoring
- **Clean Code:** Naming conventions, function design, comment practices

---

Study Tips

- Review lecture slides and code examples from each week
- Practice writing code by hand (no IDE auto-complete in the exam)
- Focus on understanding **when** and **why** to use each pattern, not just memorizing structure
- Review the relationships between patterns (e.g., Abstract Factory uses Factory Method)
- Practice drawing UML diagrams on paper

Module C: Good Luck & Contact Information

Final Reminders

Contact Information

- **Instructor:** Asst. Prof. Dr. Ugur CORUH
- **Email:** ugur.coruh@erdogan.edu.tr
- **Office Hours:** Please check the course syllabus or contact via email to schedule an appointment
- **Course Website:** Check your university LMS for announcements

If you have any questions about the exam content or format, please do not hesitate to reach out before the exam date.

Good Luck!

- Get a good night's sleep before the exam
- Arrive at the exam location at least 15 minutes early
- Read each question carefully before answering
- Manage your time wisely – do not spend too much time on a single question
- Review your answers if you have time remaining

We wish you the best of luck on your final exam!

$End - Of - Week - 16 - Module$