

# CS105

## Introduction to Object-Oriented Programming

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# Course Details

- Course Code : CS105
- Course Name : Introduction to Object-Oriented Programming
- Credit : 6.00 (ECTS)
- Course Level : Undergraduate
- Course web page: <https://.....>
- Instructor(s) : Nizamettin AYDIN
- Room : .....
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- TAs : O. Furkan Kinli,  
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- Office Hours :

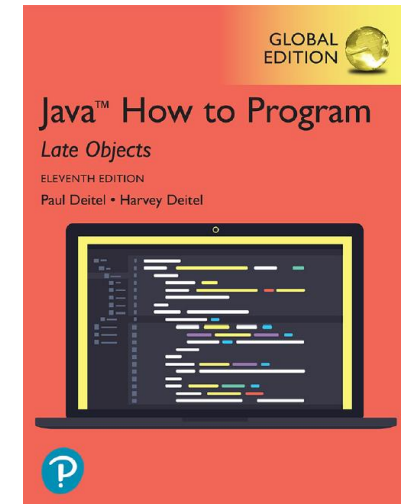
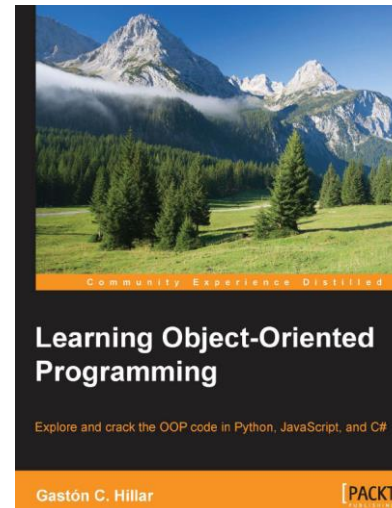
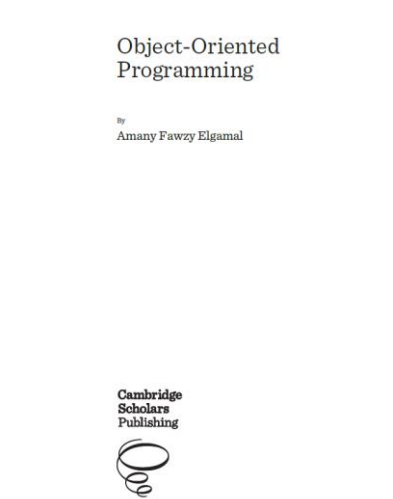
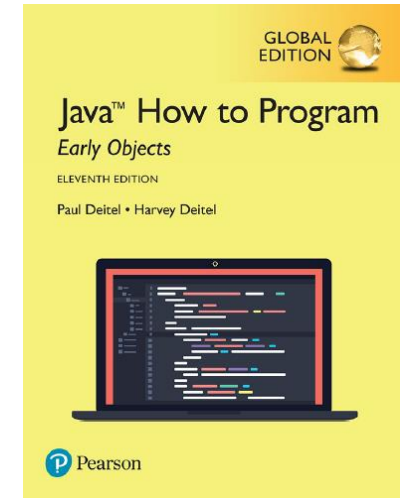
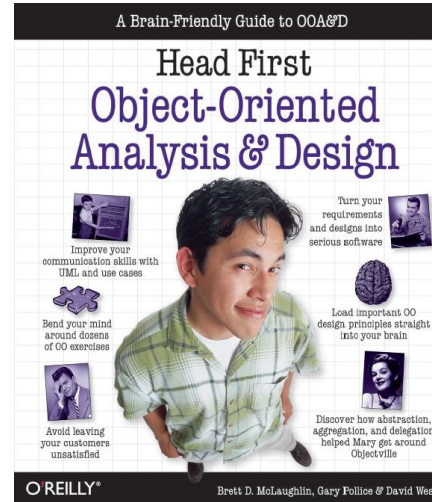
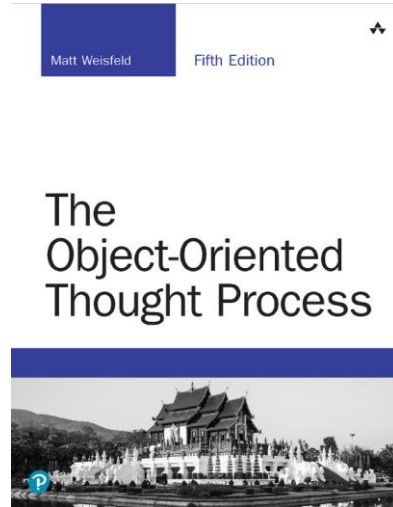
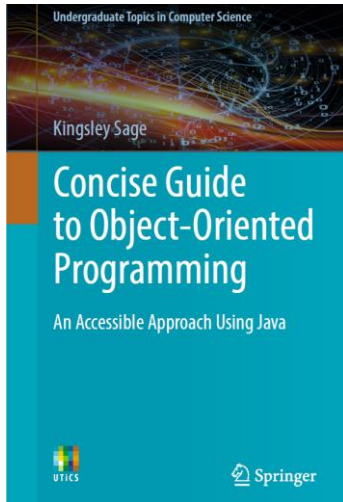
# Course Outline

- Object-oriented languages
- Basic organization and control structures
- Methods
- Classes and Objects
- Constructors
- Method Overloading
- Collection Libraries
- Access Modifiers and “this” keyword
- Objects and Memory
- Inheritance
- Polymorphism
- Abstract Classes and Interfaces
- Class Hierarchy and Class Diagrams
- Static members and methods

# Learning Outcomes

- Develop the necessary interface of an object and concretization of an abstract object.
- Utilize static and non-static methods.
- Utilize an object-oriented library.
- Write programs that use polymorphism.
- Design an object-oriented solution to a problem.

# Some Books



# Outline for Today

- Course Organization
  - Schedule
  - Grading & Other course policies
- First part of the course
  - Fundamental Concepts
  - A brief overview
  - Object-oriented languages
  - Hello World!

# Course Organization

# Weekly Schedule

- Lectures

<u>Day</u>	<u>S.Time - E.Time</u>	<u>Room</u>
Wednesday:	08:40 - 12:30,	EF_AB1 #241-Classroom #241
Thursday	: 08:40 - 12:30,	EF_AB1 #241-Classroom #241

- Thursday lectures may be used

- for labs
- to cover additional lectures & course related materials
- for quizzes
- for midterm exam

- Lecture slides will be uploaded to LMS



# Assessment (Grading)

- Quiz (5 x %3) : 15%
- Midterm : 25%
- Homework (5 x %3) : 15%
- Final : 40%
- Attendance & participation : 05%
- Expected minimum average grade to pass : 40
- Expected minimum final exam grade to pass : 35
- Missing midterm exam or final exam results in a failing grade
- Grades will be announced through LMS
- Do not take make-up exams unless you have a very convincing reason

# Assessment (Grading)

- The total grade of the homework will be %15 (5 x %3).
  - Homework 1: [2024-mm-dd, 2024-mm-dd]
  - Homework 2: [2024-mm-dd, 2024-mm-dd]
  - Homework 3: [2024-mm-dd, 2024-mm-dd]
  - Homework 4: [2024-mm-dd, 2024-mm-dd]
  - Homework 5: [2024-mm-dd, 2024-mm-dd]
- The total grade of the quiz will be %15 (5 x %3).
  - Quiz 1: 2024-mm-dd
  - Quiz 2: 2024-mm-dd
  - Quiz 3: 2024-mm-dd
  - Quiz 4: 2024-mm-dd
  - Quiz 5: 2024-mm-dd

# Programming Environment

- Programming language: Java (without ACM library)
  - Standard Development Kit (<https://www.oracle.com/java/technologies/downloads>)
  - Keep in mind that you may be asked to use other programming languages (Python, C++)
- Some Java IDEs:
  - Eclipse (<https://www.eclipse.org>)
  - IntelliJ IDEA (<https://www.jetbrains.com>)
  - NetBeans (<https://netbeans.apache.org>)
  - BlueJ (<https://www.bluej.org>)
- Projects will be accepted via LMS
  - <http://lms.ozyegin.edu.tr>



# Programming Assignments

- Your homework assignments will have strict guidelines for input / output / submission
  - Any submission which does NOT obey these guidelines will be given a 0 (zero/sıfır/null/нуль/cero/零/صفر) grade
- Late submissions will not be accepted
- No exception to these rules
- We expect that you adhere by basic academic ethics guidelines while working on your projects.
  - You can study with your friends, but the implementation must be performed individually.
- Zero tolerance policy
- In case of plagiarism
  - You will receive -100 as a grade

# Programming Assignments

- The main objective of programming assignments is for you to LEARN.
- Submitting a fully-finished/working code does not necessarily mean that you will get full grade. There is more to it than making it work.
- You can be asked for a demo where you explain your code or make some small changes in your code.
  - If you cannot show your work in these demo sessions which means that you did not learn, then your grade can be decreased.
- How should we deal with assignments?
  - Read and understand every detail and requirement.
  - Use your time carefully-Do not leave it to the last day.
  - Make sure you understand your solution before you start coding it– otherwise you will have big problems.
  - Use office hours to discuss it with your professor & assistants
  - Don't cheat

# Rules of the Conduct



- No eating /drinking in class

–except water



- Cell phones must be kept outside of class or switched-off during class

–If your cell-phone rings during class or you use it in any way, you will be asked to leave and counted as unexcused absent.

- No web surfing and/or unrelated use of computers,  
–when computers are used in class or lab.
- You are responsible for checking the class web page often for announcements.
- Academic dishonesty and cheating will not be tolerated and will be dealt with according to university rules and regulations.  
–Presenting any work that does not belong to you is also considered academic dishonesty.

# Rules of the Conduct

- The requirement for attendance is 70%
  - Hospital reports are not accepted to fulfill the requirement for attendance.
  - The students, who fail to fulfill the attendance requirement, will be excluded from the final exams and the grade of F/U will be given.
- Link for the rules and regulations:
  - <https://studentservices.ozyegin.edu.tr/tr/mevzuatlar>
- Exams:
  - Midterm
    - Covers almost first half of class
  - Final
    - Covers second half of class + selected material from first part
  - Project/homework-related knowledge may be included in the exams
    - So do your project/homework and do not copy!

# How (not) to pass this course

- How to pass this course
  - Ideas are simple, but build on one another
    - Attend the lectures
  - Read the notes after the class
  - Complete/solve the problems
  - Do the homeworks (on your own)
  - Work together on non-assessed work
- How not to pass this course
  - Do not come to lecture
    - It's nice out, the slides are online, and material is in the book anyway!
    - TRUTH:
      - Lecture material is the basis for exams
    - It is much more efficient to learn through discussion
  - Copy other people's project/homework
    - It is cheating!
      - How can you answer the questions in midterm or final exams?
  - Get your project/homework done by ChatGPT!



**Any Questions?**