

CpS 209 Object-Oriented Programming II 01 Fall 2025

College of Arts and Science

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Office Hours

MWF		10:00-10:50am	Al 84
MW		1:00-1:50pm	Al 84
T		1:00-2:50pm	Al 84
TH		1:30-2:50pm	Al 84
F	(appt. only)	1:00-1:50pm	Al 84
MTWF	(appt. only)	12:00-12:50pm	Al 84

Course Information

Introduces fundamental concepts needed to support the development of desktop applications. Topics include GUI frameworks, object-oriented design with design patterns, model-view architecture, introductory generic programming, and functional programming techniques. *Prerequisite: CpS 110.*

Program Learning Outcomes (PLO):

- Write, debug, and test programs using the object-oriented paradigm
- Describe and apply standard object-oriented Design Patterns
- Develop graphical event-driven programs using a professional IDE and GUI framework

Course Resources

Website: Please keep up with the course page at <https://bjui.instructure.com/>

Textbook: [The Java Workshop](#)

Grading

Qty	Item	Points	Total		
1	Professional Development	30	30	Scale:	
				A	90-100%
4	Quizzes	10	40	B	80-89%
10	Labs	10	100	C	70-79%
5	Programs	70	350	D	60-69%
1	Team Project	120	120	F	<60%
2	Lab Tests	70	140		
3	Written Tests	80	240		
Total Points:		970			

Programming Assignments: There are two types of assignments in the class: labs and programs. Labs are small-scale assignments that typically take an hour or two to complete. Programs are larger-scale assignments that will likely take many hours (10-15 or more). Programs are graded as follows:

- **75% Correctness:** Program produces correct results; runs according to specification.
- **25% Style and Reports:** Each program and project submission must be accompanied by a written report. Methods are short and well tested.
- **Specifications:** Assignments that do not meet minimum assignment specifications may be marked "unassessable" and be assigned a grade of F. Such assignments can be resubmitted using a late token.

- **Competency:** Upon request, a student must be able to explain or modify any portion of a programming assessment (lab, program, test, or project). Failure to complete this task upon request will result in the assessment being marked "unassessable."

Course Policies

In this course, topics build on the previous topic. Thus, if you fall behind, you will struggle with new content. For this reason, I do not accept late work. Work is due at the deadline.

Late work receives a 0. Extensions may be purchased with [tokens](#).

[Professionalism](#)

[Emergencies](#)

[Handbook Policies](#)

[Attendance Policy](#)

[Accommodations for Students with Disabilities](#)

[Academic Honesty and Integrity Policy](#)

Generative AI Exceptions

Using generative AI for error-related information or coding library information is permissible if 1) you do not feed in course or textbook content (notes, instructions, solutions, etc.), 2) you do not copy blocks of code (3+ lines of code), and 3) you document which AI tool was used, the prompts used, and the output.

[Testing Environment](#)

[Course Materials Use](#)

Curriculum Information

Context

This course supports the following objectives of the Computer Science and Information Technologies programs:

CS 1. Design and implement solutions to practical problems

CS 8. Demonstrate understanding of fundamental concepts in the student's discipline

Learning Objectives

Objective	Content	Assessment
Write, debug, and test programs using the object-oriented paradigm (CS 1)		Programs 1-5 Lab Tests 1, 2 Test 1
Describe and apply standard object-oriented Design Patterns (CS 8)		Programs 3, 4; Test 3
Develop graphical event-driven programs using a professional IDE and GUI framework (CS 1)		Programs 1-5; Test 2

Tentative Schedule

Day	Topic	Text/Asgs	Due
Wed, Aug 27	Java Fundamentals		
Thu, Aug 28	Lab 1		
Fri, Aug 29	Classes, Gradle	Chapter 1: Getting Started	
Mon, Sep 01	<i>Labor Day, no class</i>		How to Videos
Wed, Sep 03	Unit Testing, More Java; Program 1	Chapter 2: Basics	
Thu, Sep 04	Lab 2		Lab 1
Fri, Sep 05	Arrays, Lists, Factories	Chapter 3: OOP	
Mon, Sep 08	Strings	Chapter 4: Collections	
Wed, Sep 10	Test 1 topics , File formats, PNG Format, File IO		Program 1 (Wednesday)
Thu, Sept 11	Lab 3		Lab 2
Fri, Sep 12	Program 2, File IO	Chapter 5: Exceptions	
	Quiz 1, Quiz 2		
Mon, Sep 15	Test 1		

Wed, Sep 17	GUI Apps, Interfaces		
Thu, Sep 18	Lab 4		Lab 3
Fri, Sep 19	Design a Reader, OO Design, Test 2 topics		Program 2
Mon, Sep 22	<i>Special Speaker</i>		
Wed, Sep 24	<i>REACH Seminar Day, no class</i>		
Thu, Sep 25	Lab 5		Lab 4
Fri, Sep 26	Model-View Architecture, GUI Programming		
Mon, Sep 29	Test 2	Lab Test 1 Practice	
Wed, Oct 01	Inheritance, Class Hierarchies, Even More Java		
Thu, Oct 02	Lab Test 1		
Fri, Oct 03	Even More Java, Dynamic Controls		Program 3
Mon, Oct 06	Anonymous Methods	Chapter 13: Function Programming	
Wed, Oct 08	Observer Pattern		
Thu, Oct 09	Lab 6		Lab 5
Fri, Oct 10	Timers, Animation, Sound		
Mon, Oct 13	Functional Programming	Chapter 15: Streams	
Wed, Oct 15	Command Pattern, Choose teams		Lab Test 2 Practice
Download Lab Test 2 Practice			

Thu, Oct 16	Lab: Proposal		Lab 6
Fri, Oct 17	State Pattern, State Machines Project Introduction		Program 4
Mon, Oct 20	<i>Fall break, no class</i>		
Wed, Oct 22	Test 3 Topics , workday	Command Pattern	
Thu, Oct 23	Lab 7		
Fri, Oct 24	Project Proposal Presentations		Project Proposal Presentations Proposal
Mon, Oct 27	Test 3		
Wed, Oct 29	Git, Data binding		
Thu, Oct 30	Workday		Lab 7
Fri, Oct 31	Serialization		Program 5
Mon, Nov 3	Workday		
Wed, Nov 5	Generics		
Thu, Nov 6	Lab Test 2		
Fri, Nov 7	Multithreading		1st Sprint
Mon, Nov 10	Workday		
Wed, Nov 12	Workday		
Thu, Nov 13	Lab 8: Git		
Fri, Nov 14	Multithreading with Servers		2nd Sprint
Mon, Nov 17	Workday		
Wed, Nov 19	Dependency Inversion		
Thu, Nov 20	Lab 9		Lab 8: Git

Fri, Nov 21	Asynchronous Methods		
Mon, Nov 24	<i>Thanksgiving break, no class</i>		
Wed, Nov 26	<i>Thanksgiving break, no class</i>		
Thu, Nov 27	<i>Thanksgiving break, no class</i>		
Fri, Nov 28	<i>Thanksgiving break, no class</i>		
Mon, Dec 01	Workday		
Wed, Dec 03	Workday		
Thu, Dec 04	Lab 10		Lab 9
Fri, Dec 05	Design Patterns		3rd Sprint
Mon, Dec 08	Workday		
Wed, Dec 10	Final Exam Topics , Workday		
Thu, Dec 11	Workday, Lab 11		Lab 10 ; Final Sprint
Fri, Dec 12	Project Demos		Lab 11 ; Demos
Wed, Dec 17	3:30-4:40 p.m. Final		

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