

CS1101

Programming and Problem Solving

Dr. Gina Bai

Fall 2022

Instructor

- Dr. Gina Bai
- ruibai@vanderbilt.edu
- Office: FGH 381
- Office Hours:
 - Mon/Wed, 10:00am – 11:30am
 - OR by appointment

Teaching Assistants (TAs)

We have a group of TAs!

- Names, emails, office hours will be posted on Brightspace > Staff
- ALL TA office hours will be held in **FGH 201**
- **SHARED** TA office hours



Piazza

- <https://piazza.com/vanderbilt/fall2022/cs1101>
- **Preferred** communication method
- Class discussions & Questions
 - All questions related to **programming assignment**
 - You are encouraged to **ask** questions and **answer** other's questions
 - **NEVER post your code publicly**

What is Computer Science?

- Computer science is the study of computation
- Computer science and engineering is the systematic study of algorithmic processes that describe and transform information: their theory, analysis, design, efficiency, implementation, and application.

by ACM (Denning, et al., 1988)

Challenges when dealing with computers

- Computers have no rational thought.
- Computers require steps of instructions that are very specific.
- Computers do not understand natural languages.

What is computer programming?

- Computer Science is not just programming
- Computer Programming
 - The art of **designing** and **writing** a group of **instructions** that the computer's processor executes.
 - Program: a list of instructions to be carried out by a computer

How do we interact with computers?

- Programming languages
 - allow us to write code that uses mostly English and arithmetic operators.
- Compiler
 - translates code we can understand into 0's and 1's that the processor can understand.

What will you learn in CS1101?

- Problem Solving
 - the purpose of writing a program is to solve a problem
- Java programming language
- Concepts of Object-Oriented Programming (OOP)
 - encapsulated collection of data variables and methods
- Documentation techniques

Course Resources – Required



Brightspace

Grades, announcement, ...



TopHat

In-class activities / Participation

Course GitHub Repo

Lectures ▾

Course materials are also available on [Course GitHub Repo](#).



Tentative Schedule

📌 Slides will be posted before the class meetings, check often.

Week	Date	Topics	Assignments
1	Aug 24	<ul style="list-style-type: none">• Introduction	HW0-A , HW0-B on Brightspace DUE: Monday, Aug 29, at 11:59 pm CDT
	Aug 26	<ul style="list-style-type: none">• Structure of Java• Write-Compile-Execute	<ul style="list-style-type: none">• PA00-A , PA00-B in zyBook Chap 12 DUE: Thursday, Sept 1, at 11:59 pm CDT <ul style="list-style-type: none">• ZY-1 , ZY-2A in zyBook Assignments DUE: Saturday, Sept 3, at 11:59 pm
2	Aug 29	<ul style="list-style-type: none">• Debugging• Program Errors• Primitive Data Type	
	Aug 31	<ul style="list-style-type: none">• Expressions• Variables	
	Sept 2	<ul style="list-style-type: none">• Math Class• Constant & Class Constant	
3	Sept 5	<ul style="list-style-type: none">• Strings• Scanner with Strings	
	Sept 7	<ul style="list-style-type: none">• Static Method Parameter & Return Value	
	Sept 9	<ul style="list-style-type: none">• Passing Parameters• Verify Parameter Values• Scanner as a Parameter	
4	Sept 12	<ul style="list-style-type: none">• Boolean• Equality, Relational, Logic Operators	
	Sept 14	<ul style="list-style-type: none">• Conditionals• Conditional expressions	
	Sept 16	<ul style="list-style-type: none">• TBD: 1) Finish the topics above if needed, or 2) Exam 1 review, or 3) more conditionals	
5	Sept 19	Exam 1 Review and/or Q&A	
	Sept 21	Midterm Exam 1	
	Sept 23		

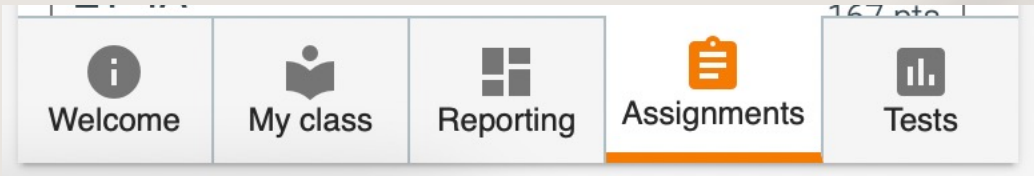
Course Resources – Required



zyBook

Textbook

"ZY" assignments: Assignment



"PA" assignments: Chapter 12

12. Programming Assignments (PAs) | zyLabs

Course Resources – Required



codePost

Assignment grading



Gradescope

Exam grading

Course Structure

- Assignments
 - Activities (Participation & Challenge) on zyBook ("ZY", ~10 in total) – **10%**
 - Programming Assignments ("PA", ~11 in total) – **45%**
- Participation – **5%**

Course Structure

- Exams
 - Midterm 1 – **10%**
 - Sept 21
 - Midterm 2 – **15%**
 - Oct 26
 - Final – **15%**
 - Dec 13

Grading Disputes

- Regrade requests MUST be submitted **within TWO weeks** after grades are released
 - **Where** do I find the grades?
 - For assignments, visit **codePost**
 - For exams, visit **Gradescope**
 - **Who** do I contact about the grading disputes?
 - For assignments, contact TAs
 - For exams, contact your instructor (yea that's me)

Late Work Policy

- Penalty
 - 20% for (0, 24] hours late
 - 50% for (24, 48] hours late
- Assignments will be accepted late **up to 48 hours**.

Late Work Policy

FOUR *free* late days for programming assignments ("PA")

- One late day extends a deadline by 24 hours
- Regardless of the use of free late days or not, **no submissions** will be accepted **48 hours after** the due date
 - Also means we only allow **up to two late days per assignment**
- Two free late days are given at the beginning, the remaining two will be given at the start of Week 8

Exam make-up policy

- Midterms
 - Makeups only for *serious* (**documented**) reasons
 - A student sending an email or leaving a phone message does not constitute permission
 - Otherwise, 20-100% penalty may be assessed
- Final
 - No alternate dates

Grading Scale

97.0	≤	A+	≤	100.0
93.0	≤	A	<	97.0
90.0	≤	A-	<	93.0
87.0	≤	B+	<	90.0
83.0	≤	B	<	87.0
80.0	≤	B-	<	83.0
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Academic Integrity

ALL violations will be reported to the Honor Council

Read the Academic Honesty Policy (Brightspace > Content > Course Documents) carefully for examples of academic misconduct in CS1101

- Cheating
- Plagiarism
- Aiding & Abetting
- Destruction of Academic Materials

Protect yourself

- Do not leave your workstation and/or laptop unattended or forget to log yourself out
- Do not email, ftp, or post your code on the Internet, message boards, etc.
- Do not discuss implementation details of individual assignments with your peers
- ...
- Ask the instructor for clarification of any questions or concerns about academic integrity policies before submitting an assignment

What You Should Do After Class

- Purchase your [zyBook subscription](#) – We start this week!
- Complete **Homework 0-A and 0-B** by Monday (08/29, at 11:59pm)
 - On Brightspace under **Content | First Week**
 - Homework 0-A
 - Read the **Academic honesty policy** (under **Content | Course Documents**)
 - Must receive [all 10 pts](#) to be considered for completing the quiz
 - Homework 0-B
 - An informal student survey