Computer Science 1321

Java for programmers
Section 100, Fall 2021

Class Time: 3:00 pm – 4:40pm, Mondays   **Location:** *Physical Science Ctr 359*

Prerequisite: MATH 1523 or equivalent or concurrent enrollment; or placement into MATH 1743 or MATH 1823 or higher and departmental permission. Introduction to computer programming using the Java programming language for students who are already proficient in another programming language. Topics include variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

*Instructor***:** Keerti Banweer

Email: keerti.banweer@ou.edu.

Office Hours:
Wednesday: 4pm – 5pm
Thursday: 10am – 12pm
Friday: 2pm – 3pm

Masking: Masks are encouraged during lecture

Class Structure: This class is a in-person class. You are expected to attend all class sessions and in person (with obvious exceptions for unanticipated events). Each session will have a quiz that must be completed during class time. Examinations in the class will take place during the class meeting time only and must be done in person unless there are extenuating circumstances.
The schedule for the class along with zoom information is listed on canvas home page.
NOTE: This is an in-person class. The zoom id is only used to share slides.

Canvas Learning Management System: https://canvas.ou.edu
Log in with your OUNetID (usually the first 4 letters of your last name followed by the last four digits of your student number). All assignments, deadlines, grades, announcements, and course documents will be posted to the CS 1321 Canvas page. It is your responsibility to regularly check for updates. You can configure Canvas to email you notifications.

Required Materials:
You must purchase the following items as soon as possible (all contain graded assignments that cannot be completed any other way):

- Zyante Introduction to Java (online textbook) with labs (zylabs):
  - Click on the first reading assignment in Canvas, which has the title "Chapter 2 - 5 reading."
  - Click the link at the bottom of the assignment page to open the Zyante website in a new window.
  - Subscribe to the book.
- Working laptop computer with 2 hours of battery life, and wireless network access. For instructions on connecting to the WIFI@OU wireless network, see the following page: http://askit.ou.edu/customer/en/portal/articles/2943699-connecting-to-wifi-ou
- Adobe Acrobat reader or Apple Preview software is also required.

Topics: Programs, Java, input and output, identifiers, variables, assignment statements, constants, memory diagrams, primitive data types, operations on primitive data, conditional statements, repetition, methods, parameters, arguments, return values, nested control statements, one dimensional arrays, objects, introduction to user defined classes, and classes from the Java Application Programmers Interface (API) (including Arrays, ArrayList, Character, Collections, Double, Integer, Float, Math, Scanner, String, StringBuffer, and StringBuilder).
In this class, students will increase their ability to meet the following ABET outcomes:

- Outcome B: Analyze a complex problem, and apply computing requirements appropriate to its solution.
- Outcome C: Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- Outcome K: Apply design and development principles in the construction of software systems of varying complexity.

Useful Links
This course is run from http://canvas.ou.edu . Login with your OU 4x4.

Course Policies
Platform: You are responsible for things posted on Canvas or sent by email with a 24 hour delay.

Assignments: This class will have four types of assignments. All assignments are due at 11:59 PM on their posted due dates, other than quizzes that are due in class.
  1. Zyante (zyBook): The online textbook will introduce you to new topics before I cover them in class.
      a. Each section contains activities to reinforce the ideas in the text. Activities come in two types: participation and challenge. You are only required to complete participation activities, although you are welcome to complete challenge activities for extra practice.
      b. Each question can be attempted an unlimited number of times without a penalty. You earn 1 point for each question answered correctly before the deadline.

     c.   Some sections are marked as optional. You are not required to complete these sections.

2. Participation: There will be a quiz in class to keep you engaged and determine which topics need additional clarification.
3. Homework: These assignments consist of questions that are similar to those on the exams.
     a.   Each homework will be posted as a PDF file with fillable fields. You can read and answer the questions using Acrobat Reader: https://get.adobe.com/reader.
     b.   Homework is submitted through canvas.
4. Projects: These assignments require you to solve a problem in a less structured environment by writing a complete program.
     a.   Projects are assigned each Tuesday and are due via zyLabs generally the following Monday.

Examinations: There will be one midterm examination and a final examination. Missing an examination without a previously approved excuse will result in a grade of zero for that examination. Makeup examinations are only available when required by University policy. The final is comprehensive, as required by College of Engineering policy.

Projects, Homework, Quizzes, Attendance

Late Work: I do not accept late work. Flat tires, parking problems, trips (even if academic), alarm clock failures, personal illness, internet outages, doctor's appointments, and dependent care are not acceptable excuses for submitting late work.

Excused Absences: The grading policies in the course are designed to allow students to miss one full week of class without a grade penalty. There will be no further excused absences for any event of duration shorter than a week. If you have a properly documented absence that is longer than one week, work can be excused.

Computer Literacy Expectations: A list of specific expectations for computer literacy is posted on Canvas. If you do not meet these expectations, the TAs and I will help you remedy this situation immediately or drop this class.

Backup Copies of Projects: It is your responsibility to back up your files appropriately. No extensions to deadlines will be given as a result of lost files, unless there is a massive, network wide problem that affects the entire class. Buy a jump drive and make backing up your work a routine part of computer usage. Dropbox or other cloud services are also useful for this if you have reliable internet access. It is particularly important to save a backup copy of any homework or laboratory project that is submitted. This backup version should not be opened or edited after submission in case something goes wrong with the submission (like submitting the .class files instead of the .java files, a very common error).

Evaluation

Grade Summary: Canvas has a grade book that stores the raw data used to calculate your course grade. It is your responsibility to periodically check that your grades are recorded properly. If you find an error, email to me as soon as possible, and I will correct it. The grade

summary on Canvas is not accurate since Canvas does not allow the implementation of several course policies in the Gradebook. Treat this number with great suspicion. Grades are generally, but not always, higher than those in Canvas.

Submission and Formatting Failures: Submitting files on Canvas is a two-step process. First the file is uploaded, then submitted. Each student will be forgiven for failing to hit submit once during the course of the semester. Each student will also be forgiven for submitting assignments in the wrong format only once (usually submitting a Word document instead of a PDF file, or submitting .class files instead of .java files).

Grading: There are 6 components to the course grade. They are weighted as follows. The percentage of the grade that comes from interactive tutors, homework and laboratory activities is designed to be small to allow students to make mistakes and learn from them with only small penalties. However, completing these exercises is how most students develop the conceptual understanding that make it possible to do well on the homework, midterms and final.

Item	Weight	Forgiveness Policy
Zyante^	15 %	None
Projects	25 %	1 lowest excused
Homeworks	10%	1 lowest excused
Quiz	5 %	1 lowest excused
Midterm Examinations	20 %	None
Final Exam	25 %	None

^ Zyante grades are based on the number of problems answered correctly before the deadline for **participation exercises only**. The challenge problems are not graded. They can be used to get additional practice.

The grading scale will be no higher than the following. It may be lower at the discretion of the instructor.

Grade	Percentages
A	90+
B	80-89
C	70-79
D	40-69
F	Otherwise

Borderline Grade Decisions: Although it would be preferable that all grades are cleanly decided, it is usually the case that a few final course grades are decided by only a few points. I have an algorithm for determining grades in these difficult cases. A grade is a borderline grade if it is within three points of the next higher grade. Therefore, grades like 89, 69 and 79 are borderline grades, but grades like 81 and 92 are not. The grade on the final examination will be used to determine borderline grades. If the grade on the final is below the threshold for the higher grade, the lower grade will be given. If the grade on the final is above the threshold for the higher grade, the higher grade will be given.

Laptop Computers: It is the responsibility of each student in this class to have a working laptop computer available for every class. If your computer requires repair during the semester, it is your responsibility to make arrangements to have another computer available and get the necessary software installed before the class time. A student without a fully usable laptop computer will be at a severe disadvantage in this class.

Accommodation of Disabilities: The University of Oklahoma and I are both fully committed to providing reasonable accommodations for all students with disabilities. If you require accommodations, please speak with me as early in the semester as possible. Additionally, you must register with the Accessibility and Disability Resource Center: https://www.ou.edu/drc.

Adjustments for Pregnancy/Childbirth Related Issues: Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see http://www.ou.edu/eoo/faqs/pregnancy-faqs.html for answers to commonly asked questions.

Religious Observances: It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. Please check the schedule and inform me of conflicts as soon as possible.

Title IX Resources: For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24/7, counseling services, mutual no-contact orders, scheduling adjustments, and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office at 405-325-2215 (8 AM–5 PM) or the Sexual Assault Response Team at 405-615-0013 (24/7) to learn more or report an incident.

Disruptive Electronic Devices: You may use laptops, tablets, cell phones, and other electronic devices in class in ways that enhance your learning. These devices should not be used in ways that distract other students (e.g., playing games, watching videos, or making noise). Your cell phone, tablet, and gaming console should generally be off during class time unless you are using them for class related work.

Academic Integrity Violations: The University of Oklahoma defines an integrity violation to be any act that improperly affects the evaluation of a student's academic performance or achievement. The Student's Guide to Academic Integrity (http://integrity.ou.edu/students.html) gives examples: "cheating on examinations with cellphones, notes, or neighbors; plagiarism, improper collaboration on assignments intended for individual completion."
The most common violations in this course are plagiarism, usually on laboratory assignments and homework. Plagiarism is defined (http://dictionary.reference.com/browse/plagiarism?s=t) as "an act or instance of using or closely imitating the language and thoughts of that author's work as one's own, as by not crediting the original author." I avoided committing plagiarism by putting words in quotes and citing the source in the previous sentence. However, this

mechanism does not work on homework and laboratory assignments since it only changes one form of academic misconduct (plagiarism) into another (improper collaboration on assignments intended for individual completion).

When you pass this class with a grade of C or better, I am certifying to the world that you are a competent Java programmer. I cannot make this certification without seeing work that you did on your own. Interactive programming tutors, homework and examinations should be the work of a single individual, not their friends, and not their tutor. Although I can't really believe I have to say this, the solutions to assigned work should not be copied from internet sources, including cheat sites and paid professional programmers. Remember, I can do internet searches too.

1. Do not show, give, or email another student a copy of your work before the submission deadline. Every semester I have multiple students submit another student's work as their own with the other student's name still on it. Do not trust other students to not do stupid things that will get you in trouble.
2. The penalties for permitting your work to be copied are usually the same as the penalties for copying someone else's work because it is not always possible for me to distinguish the person who copied from the person who allowed his or her work to be copied. In cases where I can make the distinction, the person who copied the work will have a more severe sanction.

It is permissible to talk to other students in the class to get help completing or improving your work as long as this help does not interfere with my ability to properly evaluate the quality and quantity of your understanding of computer programming. For example, in Section 10 laboratories are done in pairs, and this is not any kind of academic misconduct as long as both people contributed substantially to the solution. To understand the distinction, review the examples in the table below. These are typical examples and are not intended to be a comprehensive list of all of the ways in which academic integrity can be or not be violated.

Situation	Integrity Violation?
Students A and B meet and work on their homework together. Neither student prepared anything in advance and the resulting work is identical.	**Yes**
Students A and B create drafts of their homework assignment independently and get together to compare answers and discuss their understanding of the material. Each person decides independently whether to make changes that are discussed.	No
Students A and B agree to prepare drafts of their homework assignment independently, but only Student A does. Student A shares his draft to Student B who reviews it and offers suggestions for improvement.	**Yes**
Students A and B agree that student A will work the even problems and Student B will work the odd problems. They share their work.	**Yes**
Student A has completed a project and is helping Student B complete the same project. Student A explains to Student B what student B's code actually does, which is different than what Student B thinks the code does. Student B determines how to modify the code independently.	No
Student A has completed a project and is helping Student B complete the same project. Student B is having trouble getting one part of the program to work, so Student A texts Student B three lines of their solution.	**Yes**

Student A has completed a project and is helping Student B complete the same project. Student B is having difficulty getting the program to work, so student A tells student B exactly what to type for several lines.	**Yes**
Student A has completed a project and is helping student B complete the same project. Student B is having difficulty getting the program to work, so Student A suggests that Student B use a specific debugging strategy (e.g. "Print out the contents of the variable").	No
Student A has completed a project and is helping Student B complete the same project. Student A shows Student B an example program in the online textbook that will be helpful in figuring out the solution to the problem.	No
Students A and B work on a project together. After they have finished it, student A takes the code and modifies it so the programs do not appear to be identical. *	**Yes**

*Please be aware that I have software at my disposal that can detect these kinds of changes, so this strategy is likely to be detected.

If you work with anyone else in completing an assignment, you must include that person's name on the submitted work. Failure to list a student you worked with on the assignment is a violation of academic integrity.

I sometimes use automated software to determine when student work is overly similar. The results of using this software are then evaluated manually by the instructor before any academic integrity violations are filed.

Upon the first documented occurrence of academic misconduct, I will report the academic misconduct to the Campus Judicial Coordinator. If you are found to have committed academic misconduct by this process, the least penalty is usually failing the class and being suspended from college for a semester. If you have committed academic misconduct previously, the sanctions can be more severe. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. In the event that I elect to admonish the student, the appeals process is described here: http://integrity.ou.edu/students.html .

Academic Integrity Process: Upon the first documented occurrence of academic misconduct, I will report the violation to the Office of Academic Integrity Programs. If you are found guilty by this process, the minimum penalty often results in failing the class and being suspended from college for a semester. If you have committed academic misconduct previously, the sanctions can be more severe, including expulsion from OU. The grade sanction that I usually request for academic misconduct on a single assignment is a zero on the assignment and one grade lower in the class. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. If I elect to admonish you, the appeals process is described here: https://www.ou.edu/integrity/students.

Tutors and Academic Integrity: Before you hire a private tutor, please take advantage of the many people who support this class. (See the list of TA and tutoring hours at the beginning of this document.) These people are trained to tutor properly. Private tutors can be a source of support if you are struggling in the class, but only if the tutor is aware of the distinction between teaching you the material so that you can do your own work and completing assignments for you. Tutors who simply complete your assignments are not only failing to help you learn, they

are committing academic misconduct. Each of the situations listed below in the table of collaboration scenarios applies when student A is a tutor

Incompletes: The grade of I is intended for the rare circumstance when a student who has been successful in a class has an unexpected event occur shortly before the end of the class. I generally will not consider giving a student a grade of I unless the following three conditions have been met.
1. It is generally within two weeks of the end of the semester.
2. The student has a grade of C or better in the class.
3. The reason that the student cannot complete the class is properly documented and compelling.

Mental Health Support Services: If you are experiencing any mental health issues that are impacting your academic performance, counseling is available at the University Counseling Center (UCC). The Center is located on the second floor of the Goddard Health Center, at 620 Elm Rm. 201, Norman, OK 73019. To schedule an appointment call (405) 325-2911. For more information please visit http://www.ou.edu/ucc.

Ownership of Course Materials: The instructor retains ownership and all rights to original content. This includes but is not limited to exams, lectures, quizzes, handouts, protocols, electronic documents, syllabi, and all other materials. Original or transcribed course content may not be copied, recorded, retransmitted, posted on-line, or sold without the expressed written consent of the instructor. Violation of content ownership will be treated as academic misconduct.