Computer Science 1323

Spring 2019

Class Time: 1:30-2:45 MW Location: Physical Sciences 108
Prerequisite: Math 1523 or equivalent or concurrent enrollment and some prior programming experience.

Instructor: Dr. Deborah A. Trytten (rhymes with mitten)
Pronouns: she/her/hers
Office: Devon 252
Office Phone: 325-4299 (email usually gets a quicker response)
Personal URL: http://www.cs.ou.edu/~trytten
Email: dtrytten@ou.edu
Teleconference: My Skype ID is deborah.trytten. You may Skype to office hours if you wish, but you need to make an appointment through email so I will know to turn Skype on.
My office hours are: Monday 9-10, Wednesday 4-5, Thursday 3-4
Appointments for additional office hours are scheduled through email, preferably 24 hours in advance.

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

- TuringsCraft Java CodeLab package. The access code is OKLA-26924-DLEY-39. This software purchased over the Internet directly from the company and from Akedemos. If you do not have a credit or debit card available, call Turingscraft and they will turn on your account while you mail a check. This costs $25.
- iClicker Cloud polling software on a device. If you change devices during the semester, remember to register your new device. People with unregistered remotes will not get credit for their in class work. The cost of registration is between $0 (if you already have a registered iClicker) to $50 if you purchase a traditional iClicker device and register it. You also can use your mobile phone for between $15 and $48, depending on how long a subscription you choose to purchase.
- Working laptop computer with 2 hours of battery life, and wireless network access. We will use computers during class time every day. You are expected to bring your laptop to class.

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, passing by value, passing by sharing, nested control statements, one dimensional arrays, objects, user defined classes, and classes from the Java Application Programmers Interface (API) (including Arrays, ArrayList, Character, Collections, Double, Integer, Float, Math, Scanner, String, and StringBuilder).
In this class, students will increase their ability to meet the following ABET outcomes:

**Outcome 1:** Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.

**Outcome 2:** Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

**Support Staff**

*Teaching Assistants*
Tim Klense: tim.klense@ou.edu
James Dizikes: jdizikes@ou.edu
Keerti Banweer: keerti.banweer@ou.edu
TBD

*University College Action Center Tutors*
University College Action Center Tutor: Noah Zemlin (noah.zemlin@ou.edu).
Tuesdays 3-5 p.m. (starting Jan 21), location TBD

University College Action Center Tutor: Jami Houston (jami.l.houston@ou.edu)
Wednesdays 3-5 p.m. (Starting Jan 21), location TBD

*William Kerber Teaching Scholars*
The School of Computer Science also provides William Kerber Teaching Scholars to support learning in CS classes. The hours will be posted on Canvas when they are available. The tutors are in Devon 115.

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

We use Gradescope for submission of homework, in class exercises, and examinations. Login to Gradescope through Canvas. Your account should already be created. Do not create a new account. If you have trouble with access, email me and I’ll help you figure it out.

**Free Software Tutorial Products**

**Coding Bat** http://codingbat.com requires you to create an account of your own. Please give your name in the account and not just your email. Share your responses with javabatspring2019@gmail.com (under Prefs -> Teacher Share) so we can get your grades recorded properly. Also, remember to login when you work exercises—it isn’t required and if you are not logged in then your grades will not be recorded.

**Course Policies**

**Communication Deadlines:** You are responsible for things posted on Canvas or sent by email with a 24 hour delay.
Examinations: There will be three midterm examinations 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, in other words, almost never. Midterms are scheduled on Monday, February 11, Wednesday, March 27, and Monday, April 15. **Midterm examinations are 50 minutes long.**

Final Examination: The final examination date is 8-10 a.m. on Friday, May 10. The final is comprehensive, as required by College of Engineering policy. No final examinations can be given early, except as required by University policy. The final examination is two hours long.

iClicker Cloud: I will use the iClicker Cloud in class every day to gauge student learning and track attendance and participation. Bringing someone else’s device to class and entering answers for them is academic misconduct. I will do integrity checks during the semester to ensure that people are using only their own clickers. The software uses geolocation to assure that devices are in the classroom when clicking.

Technology in Class: Students may use laptops, tablets, cell phones and other electronic devices in class in ways that **enhance** student learning. Electronic devices should not be used to detract from student learning (e.g. answering email/non-urgent phone calls/non-urgent texts/general web surfing). It is especially important that technology not be used in ways that distract other students (e.g. playing games, watching videos, anything that makes noise).

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.

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](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 advocate on call 24/7, counseling services, and mutual no contact orders, scheduling adjustments and sanctions against the perpetrator. Please contact the Sexual Misconduct Office 405-325-2215 (8-5) or the Sexual Assault Response Team 405-615-0013 (24/7) to learn more or to report an incident.

Children in Class: Currently, the university does not have a formal policy on children in the classroom. The policy described here is just a reflection of my own beliefs and commitments to students who are parents.

- All exclusively breastfeeding babies are welcome in class as often as necessary.
• For older children and babies, I understand that unforeseen disruptions in childcare often put parents in the position of having to miss class to stay home with a child. While this is not meant to be a long-term childcare solution, occasionally bringing a child to class in order to cover gaps in care is acceptable. Sick children should not be brought to class, however I will excuse grades for in-class work of any type for any parent who needs to stay home with a sick child.

• I ask that all students work with me to create a welcoming environment that is respectful of all forms of diversity, including diversity in parenting status.

• In all cases where babies and children come to class, I ask that you sit close to the door so that if your child needs special attention and is disrupting learning for other students, you may step outside until their need has been met.

**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 project 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 project 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 serious 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. 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.
<table>
<thead>
<tr>
<th>Situation</th>
<th>Integrity Violation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students A and B meet and work on their homework together. Neither student prepared anything in advance and the resulting work is more or less identical.</td>
<td>Yes</td>
</tr>
<tr>
<td>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.</td>
<td>No</td>
</tr>
<tr>
<td>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.</td>
<td>Yes</td>
</tr>
<tr>
<td>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.</td>
<td>Yes</td>
</tr>
<tr>
<td>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.</td>
<td>No</td>
</tr>
<tr>
<td>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.</td>
<td>Yes</td>
</tr>
<tr>
<td>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.</td>
<td>Yes</td>
</tr>
<tr>
<td>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”).</td>
<td>No</td>
</tr>
<tr>
<td>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.</td>
<td>No</td>
</tr>
<tr>
<td>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. *</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*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. There are no assignments where collaboration is permitted in this section of the course.

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 a zero on the assignment and one grade lower in the class and being
suspended from college for a semester. If you have committed academic misconduct previously or the academic misconduct is particularly egregious, the sanctions can be more severe and may include expulsion from OU. 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.

**Tutors and Academic Integrity:** Before you hire a private tutor, take advantage of the many staff who support this class (TAs, Action Center Tutoring, Kerber Teaching Scholars). All of these people are trained to tutor properly. Private tutors can be a source of support for students who are having difficulty in the class, but only if the tutor is aware of the distinction between teaching you the material so that you ultimately can do your own work, and doing work for you. Tutors who do work for you are not only failing to help you learn, they are committing academic misconduct. All of the situations in the table of academic integrity scenarios above apply equally when student A is a tutor.

**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.

**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, although there is some flexibility with this in unusual cases.
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.

**Accommodation of Disabilities:** The University of Oklahoma and I are both fully committed to providing reasonable accommodation for all students with disabilities, not only because it is legally required to do so but because it is morally correct too. Students with disabilities who require accommodations in this course are requested to speak with me as early in the semester as possible. Students with disabilities must be registered with the Disability Resource Center, (University Community Center, 730 College Ave, 325-3852).

**Projects, Homework, Attendance**

**Late Work:** I do not accept late work. Flat tires, parking problems, vacations, alarm clock failures, minor illness, internet outages, and non-urgent doctor’s appointments are not acceptable excuses for submitting late work. The grading policies in the course are designed to allow students to miss one full week of class without a grade penalty.

**Excused Absences:** I will excuse student work for official university sanctioned activities (student organization activities are not included), military obligations, illnesses, jury duty or other obligations if it is impossible for you to meet the assignment deadline. For example, iClicker grades would be excused for jury duty, but not homework since homework can be completed outside of class time. If you have a properly documented absence that is longer than one week, work will be excused. Makeup work is never available.
Computer Literacy Expectations: A list of specific expectations for computer literacy is posted on Canvas. If you do not meet these expectations, the support staff and I will help you remedy this situation immediately (the better choice) or drop this class.

Projects: Incomplete projects may be turned in for partial credit. Projects which do not compile will generally receive no credit. Projects that do not execute to completion generally will receive no credit (beyond the first two projects).

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 which affects the entire class. 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 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).

Homework Submission: Homework is due by 11:59 p.m. on the selected due date and submitted on Gradescope in a single, well formatted document that contains your name and has the problems in the original order in PDF format. Homework must be word processed. Photographs of hand written or word processed work are not acceptable. If gradescope will not accept your homework, email it to me.

Evaluation

Grade Summary: Canvas has a grade book that is used to store the raw data that is used to calculate your course grade. It is the responsibility of each student in this class to check their grades periodically and make sure that they are properly recorded. If an error is found, bring the grading document to me as soon as possible, and I will correct it. The grade summary on Canvas is not 100% accurate because the grading policies for this class cannot be implemented correctly in Canvas, although it generally gives a reasonable approximation.

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. Canvas only accepts documents in the proper format, so if Canvas is rejecting your files this is likely to be the problem. If Canvas is not accepting files, email the files to me.
**Grading:** There are seven components to the course grade. They are weighted as follows. The percentage of the grade that comes from interactive tutors, homework and project 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. Your grade will be the maximum of the grades calculated using weight 1 and weight 2. This allows students with significant prior programming experience to skip some classes early in the semester without penalty.

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight 1</th>
<th>Weight 2</th>
<th>Forgiveness Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turingscraft/Javabat</td>
<td>10</td>
<td>10</td>
<td>100 free points (not to exceed 100%)</td>
</tr>
<tr>
<td>Zyante*</td>
<td>5</td>
<td>5</td>
<td>100 free points (not to exceed 100%)</td>
</tr>
<tr>
<td>iClickers and Think-Pair-Share</td>
<td>5</td>
<td>0</td>
<td>3 lowest assignments</td>
</tr>
<tr>
<td>Project assignments</td>
<td>20</td>
<td>20</td>
<td>1 lowest</td>
</tr>
<tr>
<td>Homework</td>
<td>10</td>
<td>10</td>
<td>1 lowest</td>
</tr>
<tr>
<td>Midterm Examinations</td>
<td>30</td>
<td>30</td>
<td>None</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
<td>25</td>
<td>None</td>
</tr>
</tbody>
</table>

+ Each Turingscraft exercise is worth one point. Each Javabat exercise is worth 2 points.

* iClicker grading is based on the number of days when you answer at least half of the questions correctly. Each day one point is given for attendance to students who answer any iClicker question (whether correctly or not). The first week of class will not be counted. If the questions are particularly hard on a given day, a different threshold may be used at the discretion of the instructor. Think-pair-share grading is done as check-plus/check/check-minus/blank. Students who receive a check-plus or check will get credit.

^Zyante grades are based on the number of problems answered correctly before the deadline for participation activities only. The challenge exercises 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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90+</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>40-69</td>
</tr>
<tr>
<td>F</td>
<td>Otherwise</td>
</tr>
</tbody>
</table>

**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 two points of the next higher grade. Therefore, grades like 69 and 78 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.