CSE 1310 - Section 006 - Fall 2015 - Syllabus
Introduction to Computers and Programming

Course web page: http://vlm1.uta.edu/~athitsos/courses/cse1310_fall2015
Lecture times: TuTh 2:00pm-3:20pm
Classroom: NH 100
Textbook: Cay Horstmann, *Big Java: Late Objects (1st Edition)*, 2012. ISBN-13: 978-1-118-08788-6

Recommended optional material:
> Cay Horstmann, *Big Java: Late Objects, Interactive eBook*, 2012. ISBN-13: 978-1-118-83882-2. This is the interactive electronic version of the course textbook. It is recommended, especially for students with no prior programming experience, as it can be used for supplementary interactive practice. Students can also choose to purchase only the interactive eBook and not the printed textbook. However, exams in this course are open-book, and **students will not be allowed to use their eBook during exams**.

Instructor:
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> **Office hours:** TuTh 10:30am-12:00pm

Teaching assistant (GTA):
> TBD
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> **Office hours:** TBD.

Course Description

Description of Course Content: This course introduces students to computers, to the algorithmic process, and to programming using basic control and data structures. The programming language used in this course is Java.

Prerequisite: MATH 1302

Course Objectives:

- Introduction to programming
- Introduction to the Java programming language
- Learning good programming practices

Student Learning Outcomes: After successfully taking this course, a student should be able to write simple programs in Java, for processing numbers and text data. The student will know how to use

conditionals, loops, strings, arrays, methods, and file input and output. The student will also have some understanding of principles of code design, and of good programming practices.

Assignments

There will be several programming assignments in this course, typically assigned on a weekly basis. All assignments will have equal weight. No assignment scores will be dropped. The following class policies regarding assignments will be followed:

- All assignments must run on Netbeans IDE, version 8.0.2.
- All assignments must be submitted via [Blackboard](#).
- No deadline extensions for the entire class will be provided. (See syllabus about policy on extensions for individuals, based on emergencies documented in writing).
- No extra credit will be provided.

Students are allowed to work with other persons on the assignments. At the same time, learning to solve problems on your own is the most important practice for the midterm and final exams. Students are welcome, and strongly encouraged, to work on the posted practice problems as well.

Late submission policy:

- All assignments are graded out of 100 points. Assignments submitted late will be penalized, at a rate of 4 penalty points per hour. The submission time will be the time shown on Blackboard. Any assignment submitted more than 25 hours late will receive no credit.
- Exceptions to late submission penalties will only be made for emergencies documented in writing, in strict adherence to UTA policy. For all such exception requests, the student must demonstrate that he or she made all efforts to notify the instructor as early as possible.
- Computer crashes, network crashes, and software or hardware failure will NOT be accepted as justification for late submissions. If you want to minimize chances of a late submission, aim to submit early. You can always revise your submission till the deadline.
- Sometimes students submit the wrong files on Blackboard. Unfortunately, no credit or waiver of late penalties can be provided in such cases.
- If you find yourself in an emergency situation and can not deliver a homework on time, immediately inform the instructor and teaching assistant. Even if you have a valid reason for delivering late an assignment, you must make a convincing case that you have notified the instructor and teaching assistant as early as possible.

If you want to minimize chances of a late submission, aim to submit early. You can always revise your submission till the deadline.

Exams

There will be three midterms and one final exam in this course. All exams will have equal weight. No exam scores will be dropped. **No make-up exams will be offered.**

All exams are open-book, and students are free to bring any printed or handwritten material (textbooks, notes, etc.) to consult during the exam. Students will not be allowed to bring in any electronic aids,

including pocket calculators, laptops, e-books, cell phones.

Students are not allowed to talk or otherwise communicate with other students during an exam.

Absence from exams may be excused, with appropriate documentation, for illness, critical family emergencies, military service obligations, observance of major religious holidays, and certain university service commitments. Car or transportation problems will NOT be considered a legitimate reason to miss an exam. **Requests for excused absence, and documentation for such absences, must be provided as soon as possible. Even if the reason for an absence is valid, a request for an excused absence will be rejected if provided unjustifiably late.**

Attendance Policy

At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I will follow the following attendance policy: Attendance is mandatory for exams (midterms and final), but NOT for lectures. Attendance in lectures will NOT be used in calculating the semester grade. However, students are responsible for the material covered in the lectures. The instructor and teaching assistants will NOT honor requests to fill students in on what they missed in class, unless the absence was justified by an emergency.

Attendance is required for exams. Absences for exams will only be excused for medical or other emergencies, in strict adherence with UTA policy. All emergencies must be reported as early as possible and **documented in writing**. No make-up exams will be given.

Transportation problems (e.g., flat tires) will NOT be considered a valid excuse for missing exams. To ensure attendance, plan to arrive to class well in advance, and have backup transportation plans available.

Class Participation

Class participation is optional, and will not be considered for the course grade. At the same time, students are highly encouraged to participate, by asking questions, as well as answering questions by the instructor. Class participation can be an important resource for students who have difficulty understanding any part of the course material.

Grading

Assignment scores and exam scores are converted to letter grades based on the following scale:

- A: 90%
- B: 80%
- C: 70%
- D: 60%

- F: below 60%.

The instructor reserves the right to lower these thresholds, based on the distribution of scores and the degree of difficulty of the assignments and exams.

At the end of the semester, the course grade will be computed based on the following steps:

1. The average of all assignment scores will be converted to a letter grade.
2. The average of all exam scores will be converted to a letter grade.
3. The LOWEST of those two letter grades will be the semester grade for the course.

For example, if a student receives an F for the assignments and an A for the exams, the semester grade will be an F. Similarly, if a student receives an F for the exams and an A for the assignments, the semester grade will be an F.

Any request for re-grading (for an assignment or midterm exam) must be made within 5 days of receipt of that grade. Any request for re-grading the final exam must be made within 3 days of receipt of that grade. Re-grading can lead to a higher or lower grade, depending on grading errors that are discovered.

IMPORTANT: It should be clear to every student that course grades will depend EXCLUSIVELY on the above grading criteria. Students should not request nor expect any other factor to be considered in computing the course grade. For example, factors that will NOT be considered are: need of a better grade to keep financial aid, to stay in the program, or to graduate. Students are expected to carefully monitor their own performance throughout the semester and seek guidance from available sources (including the instructor) if they are concerned about their performance and the course grade that they will earn.

Withdrawals

The university withdrawal policy will be strictly adhered to. Up to the initial withdrawal date, all students will receive a W. After that date, the grade will be determined by the student's current average, and a WF or WP assigned as appropriate.

Expectations for Out-of-Class Study

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend an additional minimum of 10 hours per week of their own time in course-related activities, including reading required materials, completing assignments, solving practice questions, and preparing for exams. More time may be needed for people having difficulties understanding the material. People with relatively weak mathematical background are expected to have more difficulties understanding the material, and to need more out-of-class study time.

Emergency Exit Procedures

Should we experience an emergency event that requires us to vacate the building, students should exit the

room and move toward the nearest exit:

- Safely and calmly exit the classroom.
- After exiting the door turn right, and walk to the nearest exit, which is approximately 30 feet away from NH 100.

When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

University Policies and Services

Grade Grievances:

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate catalog.

Drop Policy:

The standard UTA drop policy applies to this course. Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

Disability Accommodations:

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA), and Section 504 of the Rehabilitation Act. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

- The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.
- Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their

request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX:

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos. For information regarding Title IX, visit www.uta.edu/titleIX.

Academic Integrity:

All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, paragraph 2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services:

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication:

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey:

At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory

shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week:

A programming assignment will be due on Final Review Week. This is in accordance with the UTA Final Review Week policy stated below:

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Course Schedule

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. The following schedule is tentative, and will be regularly updated.

Lectures Schedule

- Lecture 1: Thu 08/27 - Introduction
    - Book reading: Chapters 1, 2.
    - Slides on course syllabus: PPT, PDF.
    - Slides on course introduction: PPT, PDF.
    - Slides on how to run a Java program: PPT, PDF.

- Lecture 2: Tue 09/01 - First Programs: Output, Arithmetic, Variables, User Input.
    - Book reading: Chapter 2.
    - Slides: PPT, PDF.

- Lecture 3: Thu 09/03 - Variables, types, operations on numbers, formatted output (printf).
    - Book reading: Chapter 2.
    - Variables, types, operations on numbers: PPT, PDF.
    - Slides on formatted output (printf): PPT, PDF.

- Lecture 4: Tue 09/08 - Strings.

- Book reading: Chapter 2.
  - Slides on strings: [PPT](), [PDF]().

- Lecture 5: Thu 09/10 - If statements
  - Book reading: Chapter 3.
  - Slides: [PPT](), [PDF]().

- FRIDAY SEPTEMBER 14: CENSUS DATE

- Lecture 6: Tue 09/15 - If statements (continued)
  - Book reading: Chapter 3.
  - Slides: see previous lecture.
  - [Example programs:]() StartsWithVowel1.java, StartsWithVowel2.java, LeapYear.java.

- Lecture 7: Thu 09/17 - Loops
  - Book reading: Chapter 4.
  - Slides: [PPT](), [PDF]().
  - [Example programs:]() prime_numbers.java, guessing_game.java.

- Lecture 8: Tue 09/22 - Loops (continued)
  - Book reading: Chapter 4.
  - Slides: see previous lecture.

- Lecture 9: Thu 09/24 - Loops (continued)
  - Book reading: Chapter 4.
  - Slides: see previous lecture.

- Lecture 10: Tue 09/26 - Exceptions and Input Validation
  - Slides: [PPT](), [PDF]().
  - [Example programs:]() final_circles_program.java.

- **Lecture 11: Thu 10/01 - First midterm.**

- Lecture 12: Tue 10/06 - Methods (functions)
  - Book reading: Chapter 5
  - Slides: [PPT](), [PDF]().
  - [Example programs:]() factorial_program.java, smallest_of_two.java, smallest_of_three.java.

- Lecture 13: Thu 10/08 - Methods (functions), continued.
  - Book reading: Chapter 5
  - Slides on common mistakes with methods/functions: [PPT](), [PDF]().
  - [Example programs:]() squares_less_than_N.java, sum_of_squares.java, box_print.java, sum_of_digits.java, count_vowels.java, has_vowels.java, has_vowels_2.java, palindromes.java, fibonacci_numbers.java.

- Lecture 14: Tue 10/13 - Methods (functions), continued.
  - Book reading: Chapter 5

- Lecture 15: Thu 10/15 - Binary numbers, hexadecimal numbers.
  - Book reading: Appendix I.
  - [Example programs]() that convert between binary and decimal formats, and between hexadecimal formats.

- Lecture 16: Tue 10/20 - Arrays and array lists.
  - Book reading: Chapter 6.
  - Slides: PPT, PDF.
  - Example programs: months_no_arrays.java, months_arrays.java, read_n_numbers.java, read_n_numbers2.java, read_n_numbers3.java, read_n_numbers_array_list2.java, read_n_numbers_array_list3.java.

- Lecture 17: Thu 10/22 - Arrays and array lists, continued.
  - Book reading: Chapter 6.
  - Slides: see previous lecture.
  - Example programs: matrix_average.java, array_copy.java, array_list_sum.java.

- Lecture 18: Tue 10/27 - Arrays and array lists, continued.
  - Book reading: Chapter 6.
  - Slides: see previous lecture.

- **Lecture 19: Thu 10/29 - Second midterm.**

- Lecture 20: Tue 11/03 - File input/output.
  - Book reading: Chapter 7.
  - Slides: PPT, PDF.
  - Example programs: file_printing.java, file_printing2.java, length_of_file.java, word_counting.java, file_writing_example.java.
    To run these programs, download the text files nba.txt and enrollments.txt, and place them in your project directory.

- WEDNESDAY NOVEMBER 04: LAST DAY TO DROP

- Lecture 21: Thu 11/05 - File input/output (continued).
  - Book reading: Chapter 7.
  - Slides: see previous lecture.
  - Example programs: convert_to_squares.java, nba_leaders_2d_array_version.java, nba_leaders_2d_arraylist_version.java,
    To run these programs, download text files in_numbers.txt and nba.txt, and place them in your project directory.

- Lecture 22: Tue 11/10 - File input/output (continued).
  - Book reading: Chapter 7.
  - Slides: see previous lecture.

- Lecture 23: Thu 11/12 - The phonebook application.

- Lecture 24: Tue 11/17 - The phonebook application (continued).

- Lecture 25: Thu 11/19 - Examples of more complicated programs.

- Lecture 26: Tue 11/24 - Examples of more complicated programs.

- Lecture 27: Tue 12/01 - Examples of more complicated programs.

- **Lecture 28: Thu 12/03 - Third middterm.**

- Lecture 29: Tue 12/08 - Review.

- **Final Exam: Tue 12/15, 2:00pm-4:30pm.**

Assignments Schedule

- Assignment 1. Due date: Fri 09/04, 5:00pm.

- Assignment 2. Due date: Fri 09/11, 5:00pm.

- Assignment 3. Due date: Fri 09/18, 5:00pm.

- Assignment 4. Due date: Fri 09/25, 5:00pm.

- Assignment 5. Due date: Fri 10/09, 5:00pm.

- Assignment 6. Due date: Fri 10/16, 5:00pm.

- Assignment 7. Due date: Fri 10/23, 5:00pm.

- Assignment 8. Due date: Fri 11/06, 5:00pm.

- Assignment 9. Due date: Fri 11/13, 5:00pm.

- Assignment 10. Due date: Fri 11/20, 5:00pm.

- Assignment 11. Due date: Wed 11/25, 5:00pm.

- Assignment 12. Due date: Mon 12/07, 5:00pm.

Exams Schedule

- First midterm: Thu 10/01.
    - Main topics: variables, assignments, types, conditionals, while/for loops.
    - Reading: textbook chapters 1, 2, 3, 4.
    - Relevant [lectures](#): 1-9

- Second midterm: Thu 10/29.
    - Main topics: variables, assignments, types, conditionals, while/for loops, methods (functions).
    - Reading: textbook chapters 1, 2, 3, 4, 5.
    - Relevant [lectures](#): 1-15

- Third midterm: Thu 12/03.
    - Main topics: variables, assignments, types, conditionals, while/for loops, methods (functions), arrays, files.
    - Reading: textbook chapters 1, 2, 3, 4, 5, 6, 7.
    - Relevant [lectures](#): 1-27.

- Final exam: Tue 12/15, 2:00pm-4:30pm.
    - Main topics: variables, assignments, types, conditionals, while/for loops, methods (functions), arrays, files.

- Reading: textbook chapters 1, 2, 3, 4, 5, 6, 7.
- Relevant [lectures](): 1-29.

Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. The non-emergency number is 817-272-3381.