

Instructor Dr. Lin
Office: CRH 4027
Email: linh@uah.edu, Please ALWAYS include "CS390 in your email subject."
Tel: 256-961-7652
Class Time: TR 11:20AM – 12:40PM
Class Location: OKT N308
Office Hour: TR after class; Wed; other time by appointment; anytime by email

Class Website: <http://www.cs.uah.edu/~hlin/cs390>

Course Catalog Description

Strategies for the design and development of systems and programs in the UNIX environment. UNIX operating system fundamental concepts including file and terminal I/O, processes, inter-process communication and signals. Pattern searching, filter and pipes. Shell programming, including control flow and interrupt handling. Program and system development tools awk, sed, C compiler, make etc.

Prerequisite: CS 221.

Textbook: "Your UNIX/Linux: The Ultimate Guide" by Sumitabha Das, 3/e, 2012.

Materials to be covered for this course

- Software Version control (GIT)
- UNIX file System
- Common UNIX utilities
- Text editors
- Regular Expression, Sed & Awk
- UNIX process and process control
- Interactive shell and shell programming (bash)
- Perl/Python programming
- C/C++ application development on Linux with GNU compiler, make, etc.
- System administration tools

Grade Policy

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|---------------|-----|
| • Quizzes | 10% |
| • Assignments | 40% |
| • Midterm | 20% |
| • Final Exam | 30% |

Grade Scale:

A+: 97+; A: 93-96; A-: 90-92;

B+: 87+; B: 83-86; B-: 80-82;

C+: 77+; C: 73-76; C-: 70-72;

D: 69-60; F: 59-

Quizzes (10%)

- At least once per two weeks.
- The lowest one will be dropped.

Assignments (40%)

Homework will be assigned and explained in detail during class; and will be available online. Students are required to use gitlab to manage all the assignments. When hardcopy is required, students must turn-in the printout at the beginning of the lecture on the due date, and must “git push” the work to gitlab before 11:59:59 pm

- 1) gitlab account setup, experiencing Linux shell and shell command lines
- 2) Unix commands
- 3) Practice regex with **grep** and **sed** utilities
- 4) awk programming
- 5) bash script programming
- 6) perl/python programming
- 7) C/C++ programming (make utility) on Linux
- 8) Share & Static Library in C/C++ software development

Late Work

Late assignment is not acceptable unless I am notified with a reasonable excuse, such as illness, unforeseeable event, etc.

Midterm (20%)

Scheduled on **Feb 20, 2020** during class hour. Unexcused absence from a test will result in a zero for the test and cannot be made up.

Final Exam (30%)

Final exam comprises 30% of the overall grade. Absence from a scheduled final examination without previous arrangement with the course instructor will be classified unexcused and will result in a zero for the final exam.

Final Exam: **11:30AM – 2:00PM April 23, 2020**

Classroom Rules

- Please silence your cell phone or other smart devices during lectures
- Midterm and final exams

Closed book/notes, but you are allowed to bring one page of filled with materials related to this course. Both sides may be used. No other aids are allowed, in particular, no computer, calculator, cell phone or other smart devices on the desk.

UAlert Emergency Notification System:

UAH has implemented the **UAlert** emergency notification system. UAlert allows you to receive time-sensitive emergency messages in the form of e-mail, voice mail, and text messages.

Everyone who has a UAH e-mail address will receive emergency alerts to their campus e-mail address. In order to also receive text and voice message alerts, you are asked to provide up-to-date phone contact information. Participation in UAlert text and voice messaging is optional, but enrollment is strongly encouraged. **You can't be reached through UAlert unless you participate.** The information you supply is considered confidential and will not be shared or used for purposes other than emergency notification.

To review your UAlert account, add or update phone and alternate e-mail addresses, and set the priority for your contact methods, please visit the UAlert web site: <http://ualert.uah.edu>.

OFFICIAL UAH COMPUTER SCIENCE DEPARTMENT POLICIES AND PROCEDURES

1. Responsibilities of the teacher

- 1) Provide a detailed syllabus. This syllabus should list office hours, course objectives, textbooks, references, prerequisites, and grading policy/method of assessment.
- 2) Come to class well prepared, on time, and make full use of the class time.
- 3) Provide timely and adequate feedback on grades. Return graded material promptly.
- 4) Conduct final exam at the time designated in the class schedule. Never post grades.
- 5) Not assign **new** work (i.e. not listed on syllabus) that is due in last two weeks of classes.
- 6) Avoid leaving the examination room without a proctor. Provide paper for exams.
- 7) Make reasonable use of the assigned textbook.
- 8) Check students have proper prerequisites. Instructor does not waive assigned prerequisites.
- 9) **Report all incidences of academic misconduct to the Department and VP for Student Affairs**

2. Responsibilities of the student (see also, Student Handbook Article II)

- 1) Come to class with the proper prerequisites, well prepared, on time, and make full use of the class time.
- 2) Provide adequate notice of anticipated absences and take full responsibility for finding out about missed work, announcements, and assignments.
- 3) Submit assessment material on time and submit **only your own work**. (see integrity)
- 4) Do not allow other students to copy your work.
- 5) Read and understand the syllabus and follow announced policies.

3. Integrity

We expect CS instructors and students to conduct themselves in a professional manner. Students are subject to all the provisions in the UAH Code of Student Conduct, which is available free from the Office of Admissions and Records. Information on plagiarism and other forms of misconduct is presented in the **Student Handbook Article III**. *Departments are obliged to report all student misconduct to the Office of Student Affairs.*

4. Complaint Procedure

If you have difficulties or complaints related to this course, your first action should be to discuss them with your instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should ask for a meeting with the Chair of the Computer Science Department in Technology Hall N-300, info@cs.uah.edu, telephone 256- 824-6088. *If you still are unsatisfied, you should discuss the matter with Dr. Emanuel Waddell, Associate Dean of the College of Science. The Associate Dean's office is MSB C207, telephone number 256-824-6844 and email address adeancos@uah.edu.*

5. Students with disabilities

Your instructor would like to hear from anyone who has a disability that may require a modification of seating, testing, or other class procedures. Please see instructor after class or during office hours to discuss appropriate modifications. You should also contact Disability Support Services in WH 317 (Ph. 824-1997) or online at <http://www.uah.edu/health-and-wellness/disability-support/requesting-services> for further assistance.

6. Student computer account

Students enrolled in any CS course are entitled to an account on the departmental computer network. Use of such an account is subject to departmental and university policies. To apply for an account, and see the current policies, go to the departmental web site at <http://www.cs.uah.edu/account/>

7. Examination policy

In response to past student complaints about problems during examinations, the Computer Science Department has developed the following guidelines for in-class examinations in all courses.

1. Come to the exam prepared to complete it without a break. If you think you will need a break, please inform the proctor before the exam if possible.
2. Do not communicate with other students. Talk only to the instructor.
3. Whenever you leave the exam room, turn in your exam.
4. Use only the paper provided by the instructor for all writing.
5. If assigned a specific seat, remain in that seat.
6. Unless specifically permitted by the instructor, use no books or other reference materials. Do not bring calculators, computers, pocket-organizers, cell phones, pagers, or other electronic devices to the exam.