Syllabus: CSCI 330 – UNIX and Network Programming – Fall 2023

Catalog Description:

UNIX system usage and commands. Shell script programming. Network programming concepts and protocols. System call level and basic network programming in C++. Extensive laboratory work.

Course Outline
- Basic UNIX system usage: file system, editors, commands
- Script programming: bash, sed, awk
- C++ programming: file access, permissions
- System level C++ programming
- Networking concepts: sockets
- C++ network programming: TCP/UDP
- UNIX Administration

Instructor: Dr. Raimund K. Ege
- email: ege@niu.edu, office hours online via Blackboard: Wednesday 3pm to 5pm

Teaching Assistants:

A S M Shahadat Hossain, Z1907296@students.niu.edu, office hours Mo, Fr 9:30 am to 12:30 pm

Surya Vamsi Garapati, Z1975349@students.niu.edu, office hours We 8:45 to 10:45 AM, Th 8:45 to 10:45 AM, 2:30 to 5:30 PM

Christopher DeJong, Z1836870@students.niu.edu, office hours Tu 2 to 5:00PM, We 11 to 2:00PM

Course Materials
- Laptop or external storage device, e.g. USB memory stick or disk drive (min. 16GB)
- Textbooks (optional):
  - A Practical Guide to Linux, Mark Sobell, Addison-Wesley Professional; 4th edition, 2017, ISBN 9780134774602
  - Beej's Guide to Network Programming, https://beej.us/guide/bgnet/html/multi/index.html

Grading
- The course is conducted online via the NIU Blackboard system. Students are responsible for keeping up with course progress and checking announcements regularly.
- The course features lectures, quizzes, assignments, one midterm and one final exam.
- Online lecture units are available on a weekly basis. Each week begins and ends on Wednesday at 3:30pm. Each unit is available for 3 weeks: from one week before to one week after its week. Each unit contains lecture(s) and a quiz. Make sure to view the lecture and take the quiz before it disappears. The slides used in each lecture are available in Blackboard until the end of the semester.
- There are 10 assignments: they are announced in Blackboard. Each assignment has a clear due date/time. No late assignments will be accepted. All assignments must be done individually: copying code from another source will be detected and judged as cheating and processed to the full extent of NIU's policies and procedures. The department's policy on academic misconduct applies.
- There are 2 exams: the midterm Wednesday Oct. 18 at 3:30pm and the final exam on Wednesday Dec. 13 at 3:30pm (no make-up exams allowed, unless arranged with instructor in advance).
- The following weights will be used in determining the final grade: 10% quizzes, 40% assignments, 20% midterm exam, 30% final exam.
- The following thresholds will be used in computing the course grade: A 93%, A- 90%, B+ 86%, B 83%, B- 80%, C+ 76%, C 70%, D 60%, F less than 60%.

Accessibility Statement

If you need an accommodation for this class, please contact the Disability Resource Center as soon as possible. The DRC coordinates accommodations for students with disabilities. It is in the Campus Life Building Suite 180 and can be reached at 815-753-1303 or drc@niu.edu.

Also, please contact me privately as soon as possible so we can discuss your accommodation. Please note that you will not be required to disclose your disability, only your accommodation. The sooner you let me know your needs, the sooner I can assist you in achieving your learning goals in this course.

Academic Integrity

Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an assignment written, in whole or in part, by someone else. Students are guilty of plagiarism, intentional or not, if they copy material from books, magazines, or

other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students guilty of, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university.

Mental Health and Well-Being Statement

I understand that college students may experience a range of academic, social, and personal stressors, which can be overwhelming. You are not alone. Well-being at NIU offers resources, programs, and services. If you need assistance with comprehensive or crisis mental health support, Counseling and Consultation Services (CCS) at 815-753-1206 is ready to help.