

Kishwaukee College Syllabus
CIS 170 - 3001
Introduction to Unix
3 Credit Hours, Fall 2016

I. Course Description

This course is intended to teach fundamentals of the UNIX style operating systems such as BSD and GNU/Linux to those with a basic understanding of computer logic. It will cover the concepts and tools needed to work effectively in these environments, using both the command line and the X-Window System interfaces. This course will be taught using GNU/Linux. (CIS 111 or previous programming experience recommended.) Successful completion of CIS 170 and CIS 270 prepares students to take the CompTIA Linux+ exam. Three hours lecture/discussion a week.

Prerequisite: None.

II. Meeting Time and Place

Lecture/Lab:	A-1374	
Time:	6:00 P.M. - 8:45 P.M.	Monday
Dates:	8/29/16 - 12/22/16	
Withdrawal date:	12/05/16	
Labor Day:	9/5/16	School closed
Fall Friday:	10/21/16	School closed
Thanksgiving break:	11/23/16 5:00 PM - 11/26/16	School closed
Midterm exam:	10/24/16	during class
Final exam:	12/19/16	6:00 P.M. - 7:50 P.M.

III. Instructor Information

Instructor:	Federico Bassetti
Office:	Classroom/Lab
Email:	Federico.Bassetti@kishwaukeecollege.edu
Phone:	815/825-2086 x 2320 (Dept. Secretary)
Website:	kermit.kishwaukeecollege.edu/~fbassetti/cis170/
Desire2Learn:	https://kish.desire2learn.com/
Dept. Secretary:	815/825-2086 x2030 (Shelley Lawson)
Office hours:	Monday after class Via Desire2Learn discussion forum Via Desire2Learn email.

IV. Expected Learner Outcomes

Upon completion of this course, the student will be able to:

- A. explain the key differences and similarities between UNIX and other modern PC operating systems.
- B. log in to a UNIX server and change the login password
- C. navigate the UNIX directory structure
- D. create and remove directories
- E. set ownership and permissions on files and directories

- F. view files and file information
- G. list files and directories
- H. explain the differences between absolute and relative pathnames and use each correctly
- I. explain the UNIX file types (ordinary files, directories, special device files, links) and be able to determine the type of a file
- J. use file tools to copy, compress, move, remove, search, rename, sort, compare, paste, and join files
- K. use shell wild-card characters and simple regular expressions
- L. use I/O redirection and pipes
- M. edit text files
- N. print files
- O. use UNIX shell tools (date, grep, sort, etc.)
- P. create shell scripts
- Q. access on-line help (man, info, etc.)
- R. create simple awk scripts
- S. use the Unix network utilities (ftp, telnet, ssh)
- T. use the X Windows System as a desktop environment

V. Required Text and Materials

A. Sobell, M. G. (2013). *A Practical Guide to Linux: Commands, Editors, and Shell Programming, Third edition*. Upper Saddle River, New Jersey: Prentice Hall/PTR. [ISBN-10: 013308504X, ISBN-13: 978-0133085044]

B. Internet access

VI. Breakdown of Course Requirements

10 assignments @ 40 points each	400 points
1 midterm exam @ 125 points	125 points
1 final exam @ 125 points	125 points
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Total	650 points

VII. Final Grade Determination

A = 90 - 100%	585 points or more
B = 80 - 89.9%	520 - 584 points
C = 70 - 79.9%	455 - 519 points
D = 60 - 69.9%	390 - 454 points
F = below 60%	less than 390 points

Grade reports will not be mailed out. Please check KishSOS, My Student Info, under Academic Profile, Grades, for grade reports.

VIII. Course Procedures

A. Students are expected to attend class sessions on time and prepared (Note: CIS 123 class sessions are optional attendance). Students should bring whatever they need to take notes to every class.

- B. Students are expected to spend **time outside of class** completing assignments.
- C. Food and beverages are not permitted in the classrooms or labs. See a more detailed policy at <http://kermit.kishwaukeecollege.edu/~dklick/foodDrinkPolicy.html>
- D. A familiarity with computers and the Windows operating system is expected.
- E. Depending on the assignment, both digital and hardcopy versions of assignments may be required for submission. The procedure for submitting digital copies of assignments will be explained in class. Make sure you always keep a copy of all of your assignments. The instructor is NOT responsible for network failures, server failures, or student mistakes.
- F. The instructor answers many questions via email. Due to the high volume of requests, submissions, and questions received via email, the instructor must prioritize responses. Most questions will be answered (or at least acknowledged) within 48 hours. If you do not get a response when you expect one, please keep in mind that your email may have failed to reach the instructor, or may have automatically been rejected by an email client or server. Please try to contact the instructor again and possibly use the phone or an in-person visit if email is failing.

IX. Make-up Policy

- A. Assignments are to be turned in on time. Assignments which are not turned in on time will not be accepted unless individual arrangements are made **in advance** with the instructor. In unusual cases where late assignments are accepted, the cost of being late is ten percent of the total possible points for every portion of a day late, up to a maximum of three days late. For example, an assignment received twenty-five hours past its due date will lose twenty percent of its total possible point value (because it is two days late). Assignments which are received more than three days (seventy-two hours) late will not be accepted and are not worth any points. Exceptions may be made to this rule if the student contacts the instructor before the due date and makes special arrangements **in advance** with the instructor. All late acceptance decisions of this nature are left solely to the discretion of the instructor. This rule does not apply once answers to an assignment have been distributed or posted. Assignments submitted after answers have been released are worth zero points even if the answers are posted one minute past the due date.
- B. Answers to assignments may be posted online, handed out in class, or sent via email by the instructor. Once an answer to an assignment has been released, no further submissions for the assignment will be allowed. This rule supersedes all other rules about when late assignments may be accepted. In general, the instructor will try to wait at least forty-eight hours before posting or distributing solutions, but there is no guarantee, so get your assignments in on time.
- C. Tests are to be taken at the day and time scheduled. Failure to take a test at the scheduled time may result in a grade of 0 for that test. In the case of an excusable absence or a genuine emergency, the instructor must be contacted as soon as possible, preferably before the scheduled test, to reschedule the makeup of that test in the Learning Skills Center on the day the student returns to campus.

X. Attendance Policy

Class attendance is strongly encouraged. You are responsible for whatever was covered in class, whether you are there or not. If you must miss a class, it is your responsibility to contact the instructor and make arrangements for notes, handouts, or announcements that were missed. Although attendance is not counted toward the final grade, there may be coursework which is done during class time which may count toward the final grade and may not be able to be taken outside of class time.

XI. Class Withdrawal

A "W" cannot be given as a final grade. The student is responsible for officially withdrawing from the class according to procedures described in the college catalog. Any student that does not officially withdraw from the class will receive a letter grade. The last date for withdrawal for this course can be found at "My Class Schedule" on KishSOS. Kishwaukee College reserves the right to administratively withdraw at midterm those students who are not actively pursuing course objectives or who are in violation of standards of behavior as outlined in the Student Code of Conduct and Discipline. For a copy of the student conduct policy, contact the Vice President of Student Services Office or refer to the Kishwaukee College catalog.

XII. Incomplete Grade

All course requirements must be completed by the end date for the course. In the event that extremely difficult circumstances merit granting a student more time to finish course requirements, an "Incomplete" (I) grade may be given. Taking an Incomplete is possible only at the instructor's discretion. To receive an Incomplete, a contract between the student and the instructor must be completed and approved regarding the completion of all remaining work within a strictly defined period of time. If the conditions of the contract are not met, an "I" grade may revert to an "F".

XIII. Class Cancellations

Class cancellations due to inclement weather will be announced on local radio stations or posted on the College web site: www.kishwaukeecollege.edu. Students may also call the College at (815) 825-2086. Class cancellations due to instructor absence will be posted on the classroom door and posted at www.kishwaukeecollege.edu/class_cancellations/. Room changes will be announced in advance whenever possible and posted on the classroom door.

Note: Although the text in this section is required by Kishwaukee College, the link to class cancellations no longer works.

XIV. Academic Dishonesty

In order to evaluate student work, faculty must be able to trust that the work is original with a student and not the work of someone else. Cheating, falsifying information, forgery, plagiarism, and other dishonest actions will not be tolerated. Sanctions for academic dishonesty are at the discretion of the instructor and subject to appeal as provided in the Student Code of Conduct and Discipline. A complete explanation of the policy and procedures surrounding academic dishonesty are outlined in the Kishwaukee College Catalog.

XV. Copyright

As a Kishwaukee College Student, you may have copyrighted materials or software made available to you by the college for course use. Please understand that copyright law may prohibit copying these materials. Violation of copyright laws can lead to prosecution for a criminal offense. You are required to abide by the specific copyright and licensing agreements that apply to each particular piece of software.

XVI. Recording of Classes/Presentations

Kishwaukee College prohibits students from electronically recording class lectures and presentations (either by audio, video, picture, or otherwise) unless certain qualifying conditions are met. For more information about this College procedure and the qualifying conditions, please visit: www.kishwaukeecollege.edu/go/recordingclasses.

Note: Although the text in this section is required by Kishwaukee College, the link to the recording policy no longer works.

XVII. Graduation Requirements for Transfer Degree Students

All students intending to graduate with an A.A., A.S, A.E.S., or A.F.A. are required to submit a Degree

Portfolio. The Degree Portfolio is a way for the institution to measure its effectiveness in preparing students for successful completion of a degree at the transferring institution. Save your college-level work throughout your academic career in order to facilitate the portfolio compilation. Also, submit a completed application for graduation from the college the semester that you plan on graduating prior to submitting the complete Degree Portfolio. Guidelines and the specific requirements (along with the rubrics used for assessment) for the Degree Portfolio can be found at www.kishwaukeecollege.edu/portfolio/.

Note: Although the text in this section is required by Kishwaukee College, the link to the portfolio information no longer works. That information is available through the password protected (it must be important to protect it from the public) school portal.

XVIII. Assistive Resources Center/Disability Services

Any student having a documented disability or special learning need and wanting to request accommodations, should contact the Coordinator in A-1317 or at (815) 825-2086 Ext 3960, (815) 825-9106 (TTY), or send an email to awilson@kishwaukeecollege.edu. The student's disability must impact their ability to participate in the educational environment and be documented by an appropriate professional prior to accommodations being approved.

XIX. Learning Skills Center (A-1300)

Students must present their Kishwaukee College student ID when using any Learning Skills Center services. For more information on the Learning Skills Center go to www.kishwaukeecollege.edu/go/lsc/. Tutoring is available to all Kishwaukee students free of charge. The Writing Center (Learning Skills Center, A-1306) answers your writing-related questions regardless of the class or assignment. Students are expected to bring all material related to the assignment, including textbooks, paper prompts, etc. Make-up tests, online tests, and placement tests are available through Testing Services, also located in the Learning Skills Center.

XX. Emergency Procedures/Safety

Yellow and red Emergency Information flipcharts are located in each classroom. These are quick reference sheets with telephone numbers to reach emergency assistance and a brief description of the correct actions to take in the event of a tornado, fire or other emergency on campus.

XXI. Religious Observances

Students faced with schedule conflicts related to a religious observance should make prior arrangements with the instructor a minimum of seven (7) school days in advance of the examination or other activity involved.

XXII. Student E-mail

Your Kishwaukee College e-mail account will be the only way to receive official notices from the college. If you choose to forward your e-mail to another account, please be advised that all communication from and within the college will use your Kishwaukee student e-mail. When communicating with instructors or employees of the college, you are required to use your Kishwaukee e-mail address.

XXIII. Community Resources

There are numerous community resources that are available to assist students in addressing a variety of personal needs. A listing and description of community resources can be found at www.kishwaukeecollege.edu/go/communityresources.

Note: Although the text in this section is required by Kishwaukee College, the link to the list of community resources no longer works.

Tentative Weekly Schedule

Please note that this schedule and the topics covered are likely to change. Changes will be announced in class. If you are not able to attend class, it is your responsibility to find out what was covered. A more detailed schedule is provided on the course website. Assignment descriptions and due dates will also be posted on the course web site.

Week	Date	Topics	Reading
1	8/29	syllabus, UNIX/Linux history, logging in/out, getting help	Syllabus Chapters 1, 2
2	9/5	school is closed on 9/5 for Labor Day	
3	9/12	command line structure; general system commands	Chapter 3
4	9/19	filesystem basics and commands	Chapter 4
5	9/26	file handling and manipulation commands (cut, paste, sort, uniq, tr, etc.)	Command reference
6	10/3	using a shell, wildcard expansion	Chapters 5, 6
7	10/10	editors: vi, emacs, nano	Chapters 6, 7
8	10/17	bash shell, piping, redirection, aliasing, history	Chapter 8
9	10/24	introduction to bash shell scripting; Midterm exam during class time	
10	10/31	bash shell scripting part I	Chapter 10
11	11/7	regular expressions	Appendix A
12	11/14	bash shell scripting part II	Chapter 10
13	11/21	bash shell scripting part III	Chapter 10
14	11/28	sed; awk	Chapter 15
15	12/5	using awk to solve problems; scripting integration and other scripting topics	Chapter 14
16	12/12	Linux install, installing packages, using a Linux GUI, brief review for final exam	
Finals	12/19/16	Final exam: 6:00 P.M. - 7:50 P.M., Rm. A-1374	