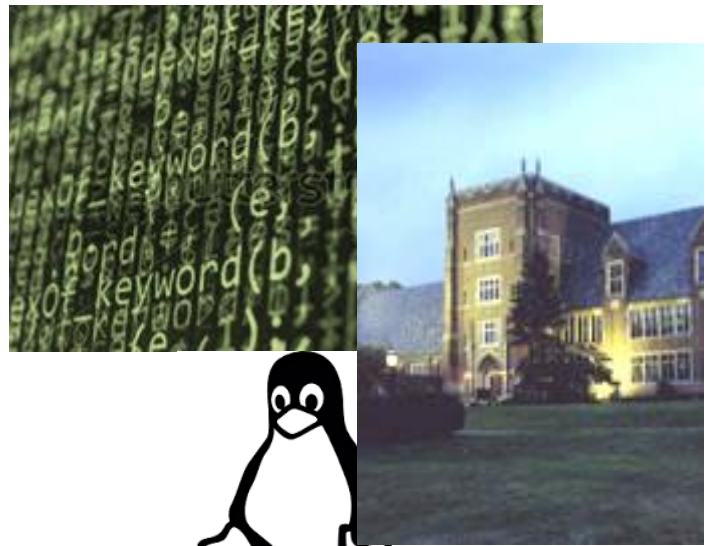


Linux

MIS 180 Spring Term 2017
TTh 9:30-10:45 Advanced Lab



Professor: Patrick M. Kelly

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Office Hours: Mondays: 10:00-11:00

Hours: 4:00-6:30

Wednesdays: 10:00-11:00

Thursdays: 8:00-9:00

Fridays: 10:00-11:00

Meeting times by appointment may be arranged as well.

Other Information:

I hate to admit it, but this course is registered on *Blackboard*, an academic software package (sadly, our go-to) set up on the Mercyhurst intranet. You may access information about the course via *Blackboard* at any time from any computer. You should get in the habit of doing so frequently.

Also, please check your information on *Blackboard*. Make sure the e-mail address listed for you is the account that you primarily use.

Textbook:

[A Practical Guide to Ubuntu Linux](#) (4th edition), by Mark G. Sobell, Prentice Hall
(ISBN-13: 978-0133927313)

[Unix and Linux](#) (4th edition), by Deborah Ray and Eric Ray, Peachpit Press
(ISBN-13: 290-0321636781)

Needs:

You will need access to a computer running Linux. Our lab computers here in the basement of Old Main are great, but you may not always be able make it to the lab. You'll ideally want Linux on your home computer. We'll discuss this further in class (today).

Course Description:

This course is designed to provide a practical, hands-on approach to the fundamental Linux/UNIX operating system concepts, architecture and administration. Our primary goal is to learn the fundamentals of computer operating systems while working predominately with the GNU/Linux operating system. The power, stability, and flexibility of Linux/UNIX has contributed to its popularity in mission-critical business and networking applications.

In particular, we will learn to configure, use efficiently, and to a lesser extent administer Linux desktops and servers. Specific topic coverage includes:

- the essence of Linux,

- exploring the Linux file system and file security,
- Linux editors,
- Linux file processing
- advanced file processing
- introduction to shell script programming
- advanced shell programming
- exploring Linux utilities
- and a brief look at webserver administration and programming applications in Linux (C or C++).

Finally, we wish to expose both beginners and experienced Linux users to new and useful methods and opportunities for utilizing Linux.

Grading:

Your final course grade will be compiled from just a couple of factors: assignments (quite a few of them) and exams (one midterm and one final). The combined point value of the assignments will comprise 50% of your final grade; the remaining 50% will come from the combined point value of the two exams.

Your final percentage, then, will determine your letter grade, according to the grading scale for the Mathematics and Information Technologies Department:

A	94-100%	B+	90-93%
B	84-89%	C+	78-83%
C	70-77%	D	60-69%
F	0-59%		

Assignments:

Frequently throughout the term you will be given assignments to complete. Some of these assignments will be due several days after being announced, whereas some of them will be given in class, to be completed during that class session (and may not be announced ahead of time).

One specific assignment to be aware of is that you will be making a presentation on some Linux/UNIX software program or package of your choice. More details will follow, but expect to do a substantial amount of research for this assignment – you will first need to find a particular program/package that interests you, and then you’ll have to learn the product well enough to demonstrate its capabilities to the rest of us. (A significant portion of the points for this assignment will be the perceived preparation you put into mastering the product yourself first.)

Exams:

The midterm and the final will each be cumulative, covering the material from the beginning of the course through to the time of the exam.

Services:

In keeping with college policy, any student with a disability who needs academic accommodations must call Learning Differences at 824-3017 or stop by Old Main room 314, to arrange a confidential appointment with the Disability Services Director during the first week of classes.

(Tentative) Course Schedule:

WEEK	TOPIC	WEEK	TOPIC
1	Intro and installations	9	SED
2	File processing	10	SED
3	Shells	11	AWK
4	Utilities	12	Shell scripting
5	Advanced file processing	13	Easter beak
6	Editors	14	System administration
7	Regular expressions	15	System administration
8	Spring break	16	Server administration

Day	Concepts/Commands	Notes
Tuesday, January 17 th	Intro to the course First-day survey Discussion on Linux A few commands	
Thursday, January 19 th	Installations <i>VirtualBox</i> <i>Ubuntu</i>	
Tuesday, January 24 th		

Day	Concepts/Commands	Notes
Thursday, January 26 th		
Tuesday, January 31 st		
Thursday, February 2 nd		

Day	Concepts/Commands	Notes
Tuesday, February 7 th		
Thursday, February 9 th		
Tuesday, February 14 th		

Day	Concepts/Commands	Notes
Thursday, February 16th		
Tuesday, February 21 st		
Thursday, February 23 rd		

Day	Concepts/Commands	Notes
Tuesday, February 28 th		
Thursday, March 2 nd		
Tue., 3/7	<i>Spring Break—no classes!</i>	
Thur., 3/9		

Day	Concepts/Commands	Notes
Tuesday, March 14 ^h		
Thur., 3/16	<i>Presentations</i>	
Tuesday, March 21 st		
Thur., 3/23	<i>Presentations</i>	

Day	Concepts/Commands	Notes
Tuesday, March 28 th		
Thur., 3/30	<i>Presentations</i>	
Tuesday, April 4 th		
Thur., 4/6	<i>Presentations</i>	
Tue., 4/11	<i>Presentations</i>	

Day	Concepts/Commands	Notes
Thur., 4/13	<i>Easter Break—no classes!</i>	
Tue., 4/18	<i>Presentations</i>	
Thurs day, April 20 th		
Tuesday, April 25 th		

Day	Concepts/Commands	Notes
Thursday, April 27 th		
Tuesday, May 2 nd		
Thursday, May 4 th		
Thursday, 5/11 8:00-10:00	<i>Final Exam</i>	