Fall 2019

IT 340-101: Introduction to System Administration

Lay

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Lay, "IT 340-101: Introduction to System Administration" (2019). *Informatics Syllabi*. 28.
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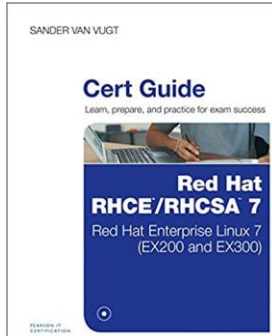<h1 style="text-align:center">Introduction to System Administration</h1>

<h1 style="text-align:center">Syllabus</h1>

Instructor: Dr. Lay (lay@njit.edu)

Office hours: by Appointment

Text: Red Hat RHCSA/RHCE 7 Cert Guide: Red Hat Enterprise Linux 7 (EX200 and EX300) (Certification Guide) 1st Edition. ISBN-13: 978-0789754059. ISBN-10: 0789754053.

Course Description
This course will introduce the tasks and techniques required to perform as a system administrator of modern operating systems. Topics to be covered include: booting, process control, the file system, managing users and resources, backups, configuration management, networking, the network file system, email servers, security, hardware devices, interoperability and daemons. Whenever possible, lectures will be augmented with hands-on exercises.

Prerequisites
IT 120

Course Computing Requirements
To complete the homework for this course, you must have access to, and administrative rights on, a computer that meets the NJIT minimum baseline computer system standards. You can find a listing of the minimum computing requirements at http://ist.njit.edu/compreq/faq.php

We will be using vCloud to create and administer virtual instances of the CentOS operating system. You will need to have Firefox or Chrome installed in order to access this service. Other browsers are not currently supported. Additionally, the VPN software will need to be installed to access vCloud from off-campus. You can find instructions on how to do this on the IST web site: http://ist.njit.edu.

Please note that students are responsible for the administration/maintenance of their own computer. This includes any software loaded onto it for this course. While I will provide help with problems when I have time available, responsibility for resolving problems remains with the student.

Grading:

LAB-Homework	10%
Project	10%
Quizzes	15%
Midterm	30%
Final Exam	35%

Grades will be computed on a straight scale out of 100 possible points: 90-100=A, 87-89=B+, 80-86=B, etc.

Course Administration
We will use Moodle for the administration of this course.

Moodle is a web site that facilitates asynchronous and synchronous communication between students and their instructor. We will use Moodle for all the interactive portions of the course. You may logon to Moodle at http://njit2/mrooms.net with your UCID and password. For those with no Moodle experience, there are a number of tutorials available on the login screen.

If you have problems accessing any system during the course, please contact the Helpdesk at (973)596-2900 and send an e-mail to me at the address listed above. You should check for new postings/assignments on Moodle at least once a day.

Once the course has begun, all contact should be through Moodle. Post general questions in the appropriate forum, while private questions should be sent to your instructor through email. This will simplify my documentation requirements at the end of the course.

Homework
I will generally assign homework each week. These assignments consist of lab type activities conducted on Linux in vCloud.
Homework needs to be handed in as paper in next week before 6:15PM. No last homework will be accepted, and it will result in zero grade. If you expect to be absent, you will need to email me the homework before the class day. If you have an urgency that stops you from attending the class, you will need to obtain approval from the Dean of the Students office. You can then hand in the paper homework together with the print out of the approval from Dean of the Students.

Quizzes
Quizzes will be in class only. I will waive three worst grades of quizzes of each student.
NO makeup for any reason. If your absence is legitimate, you will need approval from the Dean of the Students. And only so I will waive the quiz to be counted into total grades.

Assessment
The midterm and final will constitute a significant portion of your overall grade. The final exam will be cumulative. The exams will be practical exams that test your ability to administer the Linux OS.

If you must miss a class, lab, or exam because of a religious observance, it is your responsibility to report to me within the first two weeks of classes which days you will be missing.

Academic Policies
I do not accept late work.

I do not offer 'extra credit' assignments. Every student has an equal opportunity to earn the grade they'd like in the course. The overall point spread is broad enough that doing poorly on a single assignment or quiz should not significantly affect your grade.

I do not curve individual assignments. If, at the end of the course I determine that a curve is justified, then I will curve ALL final grades (either positively or negatively) equally. Grading scales are applied consistently across the entire class - no exceptions.

Collaboration
You are encouraged to work together with your classmates in order to help your high-level understanding of the material presented in the course. Any solutions to assignments/exams/projects presented for credit must be work created **on your own**. Plagiarism, cheating, or any other anti-intellectual behavior will be dealt with as per the NJIT Code of Academic Integrity. You can find a copy of the Code here:

   http://www.njit.edu/middlestates/sites/middlestates/files/lcms/docs/2012/academic-integrity-code.pdf

Please read the Code prior to the start of the course. Any violation of the Honor code will result in the student receiving zero credit for the work and referral to the Dean of Students.

Project: Create a video
Topic: Regular Expression with sed and awk in Bash Shell

Requirement:
1. Video needs to be between 6 and 10 minutes long. Longer or shorter will lose points.
2. Include 10 examples of "how-to"

GRADING RUBRIC FOR Video Project

5% **Introduce yourself for 1 minute. Names, year, major, career interest.**

20% - Quality of the video

25% – Completeness: the topic is well explained

20% - Rich information relates to the main topic.

20% - Timing: 10 minutes of video get full credit of 20%, 9 min gets 18%, etc.

10% - Good drawing, graphics, or slides.

Submission:

Save the video in MP4 format, as a file on your Google Drive, share the Google file to
lay@njit.edu. The file name must begin with IT340-2019Fall-LastName-FirstName.

I will then receive an email about your submission from Google. DO NOT attach the MP4 to
an email to me. Do not send me email with the URL. I can easily see that in my Google Drive
"Shared with me"

**Absolute deadline: November 30th, 2019. Late submission will not be accepted and
will result in 0 point.**