IT 3100: Systems Design and Administration

Fall 2022 Syllabus

Course Description

Required of Computer and Information Technology majors and students with an emphasis in Information Technology. Covers system administration topics for managing Internet facing services, including DNS, SMTP, and HTTP. Students will install, configure, and test services in a server environment.

Prerequisites

CS 1400 and IT 2400 both with a C- or better

Course fees

The fee for this course is $20.00. This will be use to pay for a lab assistant and replace aging hardware.

Sections

One sections:

1. MWF 9:00-9:50 Smith 116
   Final Exam Mon, Dec 12 9-10:50am

Instructor

Professor: Dr Joe Francom

- Email: joe.francom at utahtech dot edu
- Phone: 435-652-7732 (note: email preferred)
- Office: NBURNS 237
- Office Hours: See Below

Joe’s Fall 2022 Schedule

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWF</td>
<td>9am - 9:50</td>
<td>IT3100</td>
</tr>
<tr>
<td>MWF</td>
<td>10am - 10:50</td>
<td>Office hours</td>
</tr>
<tr>
<td>MWF</td>
<td>11am - 11:50</td>
<td>IT3300</td>
</tr>
<tr>
<td>MWF</td>
<td>12pm - 1:00</td>
<td>Office hours</td>
</tr>
<tr>
<td>MW</td>
<td>1:30 - 2:45</td>
<td>IT2500</td>
</tr>
</tbody>
</table>

Zoom is the preferred method of office hours. See canvas for the link.

Objectives

The student will be able to:

- perform a system installation, [IT PLO 1,3]
- perform user and filesystem administration, [IT PLO 1,3]
- configure DNS, web, email and database services, [IT PLO 1,3]
- secure services[IT 1,3,4], and

Resources

Texts

There are no required text for this course. There isn’t really a ‘single’ book that would contain all the topics
that we are learning; however, you could find most any Linux administration book to be of help. In particular, try the books found on oreilly online (as they are free). Access through the library website.

**Computer Labs**

Each student should have their own laptop. You will also have access to virtual machines to complete most of the tasks.

**Course Web Site**

This course has an accompanying website. You are responsible for announcements, the schedule, and other resources posted on the website. Assignments and grades will be managed using Canvas, which requires a valid Utah Tech username and password. The course website is accessible at [http://computing.utahtech.edu/courses/](http://computing.utahtech.edu/courses/).

**Assignments and Exams**

**Reading**

The student is responsible for reading the material in the textbook. A reading schedule is provided with the class schedule on the course website. The student is expected to read the material before the class in which it is discussed. The book also includes material beyond what we will discuss in lecture, which you are encouraged to study on your own. Feel free to bring questions from the reading to lectures or to office hours.

**Assignments**

There will be approximately 25 projects, with multiple projects due almost every week. The assignments are designed to promote the course objectives listed above.

Assignments are due before 11:55 pm on the due date. You then have about a week to review feedback from the autograder and fix things. Autograders are turned off at that time. You can receive full credit if everything works before the autograder is turned off. I will turn autogrders back on prior to an exam. If your assignment passes at that point, you can still get an $\frac{8}{10}$. Partial points may be possible. After the exam, you cannot receive points for an assignment which was covered on the exam.

**Quizzes**

This course will have about 7 quizzes in the semester. Quizzes are designed to check understanding of the course materials. Quizzes may be short in-class activities, or out-of-class activities.

**Exams**

There will be approximately 5 practical exams scheduled near the end of the semester. The practical exams will require students to complete hands-on work on computer systems, relating to homework assignments. The students will be expected to demonstrate the practical skills listed in the course objectives. The practical exams will be conducted in a time limited setting.

There will be a final exam as scheduled during finals week. The final will be a comprehensive written exam. The students will be expected to demonstrate understanding of the principles listed in the course objectives.

**Grading**

Assignments will count for 25% of your point total. Quizzes will count for 5% of your point total. The final exam will count for 10% of your point total. The practical exams will count for 60% of your point total.

Letter grades are assigned based on the percentage of possible points attained, according to the following chart:

Here is the grading scale:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>$&gt;= 94$</td>
<td>A</td>
</tr>
<tr>
<td>$&gt;= 90$</td>
<td>A-</td>
</tr>
<tr>
<td>$&gt;= 87$</td>
<td>B+</td>
</tr>
<tr>
<td>$&gt;= 84$</td>
<td>B</td>
</tr>
<tr>
<td>$&gt;= 80$</td>
<td>B-</td>
</tr>
</tbody>
</table>
Course Policies

Absences

Students are responsible for material covered and announcements made in class. School-related absences may be made up only if prior arrangements are made. The class schedule presented is approximate. The instructor reserves the right to modify the schedule according to class needs. Changes will be announced in class and posted to the website. Exams and quizzes cannot be made up unless arrangements are made prior to the scheduled time.

Time

Courses should require about 45 hours of work per credit hour of class. This class will require about 135 hours of work on the part of the student to achieve a passing grade, which is approximately 9 hours per week. If you do not have the time to spend on this course, you should probably rethink your schedule.

Late work

Assignments that are turned in by the due date and that are done correctly will receive full points.

Late assignments can be turned in until the exam is given which covers the assignment. You may receive a reduced score on the late assignment.

Assignments will not be accepted after an exam has been given that relates to those earlier assignments.

Any exceptions must be discussed with the instructor. Computer failure does not qualify as an excuse for late work.

Cheating and Collaboration

It is ok to talk to each other and to get help from each other, but in the end, everything should be your own. You should NOT copy/paste. You should know what cheating is. Cheating can be penalized with an ‘F’ on the assignment, and ‘F’ in the course, and/or appropriate annotation on campus-wide student records.

Important Dates Fall 2022

Aug 22 - Date classes begin
Aug 26 - Last day to add without instructor permission
Sep 2 - Last day for refund of 100% tuition and fees
Sep 6 - Late registration / payment fee - Purge date (students who have not paid tuition / fees IN FULL or made payment arrangements may be dropped from classes!)
Sep 12 - Pell Grant census date
Sep 12 - Last day for refund of 50% tuition and fees
Sep 19 - Last day to add or audit classes with instructor permission
Oct 12 - Midterm grades posted
Oct 18 - Last day to drop an individual class
Nov 11 - Last day for complete withdrawal from all classes
Dec 9 - Last day of classes
Dec 12-16 - Final Exam dates
Dec 20 - Final grades posted

Disability Statement

DSU strive to make learning materials and experiences accessible for all students so If you are a student with a medical, psychological, or learning disability or anticipate physical or academic barriers based on disability, you are welcome to let me know so we can discuss options. Students with documented disabilities are required to contact the Disability Resource Center located in the North Plaza Building, Next to the Testing Center (435-652-7516) to explore eligibility process and reasonable accommodations related to
Title IX Statement

DSU seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the college’s Title IX Director, Cindy Cole, (435) 652-7731, cindy.cole@dixie.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.

Email Disclaimer

You are required to frequently check your campus email account. Important class and university information will be sent to your campus email account, including Utah Tech bills, financial aid/scholarship notices, notices of canceled classes, reminders of important dates and deadlines, and other information critical to your success at Utah Tech and in your courses. To access your campus email account, visit mail.utahtech.edu. Your username is your Digital ID (e.g. D00111111) If you have forgotten your PIN, visit my.utahtech.edu and click the “Forgot Pin” button.

College Policies

Policy for absences related to college functions
Disability Resource Center
IT Help Desk
Library
Testing Center
Tutoring Center