IT 3100: Systems Design and Administration

Spring 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, used to assist in maintaining the CIT infrastructure.

Sections

Two sections:

1. MWF 8:00-8:50 Smith 108
   Final Exam Wed, Dec 8 7am
2. MWF 10:00-10:50 Smith 108
   Final Exam Wed, Dec 8 9am

Instructor

Professor: Dr Joe Francom

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

Joe’s Spring 2022 Schedule

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWF</td>
<td>8am - 8:50</td>
<td>IT4510 (107)</td>
</tr>
<tr>
<td>MWF</td>
<td>9am - 9:50</td>
<td>Office hours</td>
</tr>
<tr>
<td>MWF</td>
<td>10am - 10:50</td>
<td>Office hours</td>
</tr>
<tr>
<td>MW</td>
<td>11am - 11:50</td>
<td>Mostly office hours</td>
</tr>
<tr>
<td>MW</td>
<td>12pm - 1:15</td>
<td>IT3110 (107)</td>
</tr>
<tr>
<td>Online</td>
<td>IT1100 (2 sections)</td>
<td></td>
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<tr>
<td>TBA</td>
<td>IT4600</td>
<td></td>
</tr>
</tbody>
</table>

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 safari online (as they are free).

**Computer Labs**

Each student should have their own laptop, but you may use the computers in the general lab area in the Smith Computer Center. There will also be lab assistants in these labs. 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 Dixie username and password. The course website is accessible at http://cit.cs.dixie.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 20 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 autograders back on prior to an exam. If your assignment passes at that point, you can still get an $8/10$. 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:

<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>80-89</td>
<td>B+</td>
</tr>
<tr>
<td>70-79</td>
<td>B</td>
</tr>
<tr>
<td>60-69</td>
<td>B-</td>
</tr>
<tr>
<td>50-59</td>
<td>C+</td>
</tr>
<tr>
<td>40-49</td>
<td>C</td>
</tr>
<tr>
<td>30-39</td>
<td>C-</td>
</tr>
<tr>
<td>20-29</td>
<td>D+</td>
</tr>
<tr>
<td>10-19</td>
<td>D</td>
</tr>
<tr>
<td>&lt;10</td>
<td>F</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.

It is your responsibility to see that assignments/projects are turned in and on time. If you come to me and say, “I turned in that assignment”, yet I have no record of it, you will receive a 0. The burden of proof is on you to prove that you turned in something at a given time.

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

I’m not going to list them all here but you should be familiar with calendar for the drop dates, and fee dates and stuff.

College Policies

Click - for comprehensive information on the Semester Dates, the Final Exam Schedule, university resources such as the library, Disability Resource Center, IT Student Help Desk, Online Writing Lab, Testing Center, Tutoring Center, and Writing Center. In addition, please review DSU policies and statements with regards to Academic Integrity, Disruptive Behavior and Absences related to university functions.

If you are a student with a medical, psychological, or learning disability or think you might have a disability and would like accommodations, contact the Disability Resource Center (652-7516) in the Student Services Center. The Disability Resource Center will determine eligibility of the student requesting special services and determine the appropriate accommodations related to their disability.
Dixie State University affirms its commitment to the promotion of fairness and equity in all aspects of the educational institution. Harassment and discrimination – including sex/gender discrimination, gender identity, gender expression, sexual harassment, sexual misconduct, gender-based violence, dating violence, domestic violence, stalking, pregnancy or parental, family or marital status and or retaliation – not only disrupts our commitment to maintaining an environment in which every member of the University community is treated with respect and dignity, but may also violate University policy and federal, state, and/or local law.

Should you or someone you know experience behavior that is coercive, discriminatory, harassing, and or sexually violent in nature, or if you or someone you know has questions about their rights and options regarding such behavior, you are encouraged to contact:

Hazel Sainsbury, Dir. Of Equity Compliance, Title IX Coordinator: 435.652.7747 (ext. 7747)
hazel.sainsbury@dixie.edu ; titleix@dixie.edu

Incidents may also be reported directly to law enforcement, either separately or in conjunction with any report made to the University’s Title IX Coordinator, and the University will aid in making contact if requested.

Dixie State University Police: 435.275.4300 or by calling 9-1-1.

Maintaining a safe and inclusive University community is a shared responsibility. For more information on how Title IX protections can benefit you and help us keep a productive campus environment, visit titleix.dixie.edu to learn more.

**Important Links**

- Disability Resource Center
- IT Help Desk
- Library
- Testing Center
- Tutoring Center