IT 2500: Cloud Computing Architecture

Spring 2022 Syllabus

Course Description

Students will develop technical expertise in cloud computing and prepare them for industry-level exams. The curriculum is delivered through instructor-led classes, knowledge assessments, hands-on labs, and project work. Students have access to course manuals, online knowledge assessments, hands-on labs, free practice certification exams, and discount vouchers for the certification exams.

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.

You will also be required to take a certification exam. Vouchers may be provided to reduce the cost of these certifications. You should plan on budgeting $50-$150 for these certification exams.

Sections

One section:

1. MW 1:30-2:45pm (SCC 108)
   Final exam - Mon Dec 6, 1pm

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

Objectives

Students will be able to:

1. Discuss cloud-based concepts and terminology. [IT PLO 1]
2. Evaluate business needs and propose cloud solutions. [IT PLO 1,3]
3. Utilize current cloud technologies to develop and implement computing solutions. [IT PLO 1,3]
4. Successfully pass an AWS accreditation exam.[IT PLO 1,3]

Resources
There is NO required text. However, if you want a text, I strongly recommend this.

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
Most of the course content is online. You will find all learning materials at the sites indicated.

Assignments
There are several lab exercises that you will do.

Quizzes
In general there is a quiz for each module.

Knowledge checks
Given during each module.

Exams
There are several exams given in this class.

- Exam 1 will be given on or around week 5 of the semester that covers the ACF stuff.
- Exam 2 will be given on or around week 10 of the semester and will cover some of the ACA stuff.
- Exam 3 will be given on or around week 15 of the semester and will cover the remaining ACA stuff.
- There are 2 real AWS exams. Each of these has a fee associated with them.
  - Cert Cloud Practitioner (50$ after discount code) - If you pass this, you will automatically get 100% on your first exam score. (Note: only a 70% is required to pass this exam). If you do not pass, you will submit a screenshot of your score.
  - Cert Solutions Architect (75$ after discount code) - If you pass this, you will get an ‘A’ for the course. (Note: only a 70% is required to pass this exam). If you do not pass, you will submit a screenshot of your score.

Optional exams
- There are 2 practice AWS exams. These are taken online at your convenience. I will give you a coupon code so that they will be free. (These do not factor into your grade, but are good practice material)

Grading
Assignments will count for 15% of your point total. Quizzes will count for 15% of your point total. Knowledge checks will be 5% of your grade. The required exams count as 65% of your grade.

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;= 84</td>
<td>B+</td>
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<tr>
<td>&gt;= 80</td>
<td>B</td>
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<tr>
<td>&gt;= 74</td>
<td>B-</td>
</tr>
<tr>
<td>&gt;= 70</td>
<td>C+</td>
</tr>
<tr>
<td>&gt;= 66</td>
<td>C</td>
</tr>
<tr>
<td>&gt;= 62</td>
<td>C-</td>
</tr>
<tr>
<td>&gt;= 58</td>
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<tr>
<td>&gt;= 50</td>
<td>D-</td>
</tr>
<tr>
<td>&lt; 50</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