**CSCI 2930: Practical System Administration**

**Course Syllabus**

**Spring 2014**

**Instructor: Kenneth Sisco**

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**Phone: 303-556-2283**

**Office: LW-834 (during office hours only); NC-2610 (outside of office hours)**

**Office Hours: T/Th 8:00p.m. – 9:00p.m. and by appointment**

**Catalog Data: Introduces students to essential system administration topics including, but not limited to, IT design and configuration methodologies, desktop support, building and configuring production level servers, network technologies and troubleshooting, security, virtualization, storage, and server operating systems.**

**Co-requisites: None**

**Prerequisites: CSCI 1410 and CSCI 1411 or an equivalent introductory computer programming course**

**Note: *Each student must sign and return the attached Prerequisites Agreement form to receive any credit for any assignment or exam. If this form is not returned by the 1st week, the student will be administratively dropped from the course.***

**Expected Knowledge at the Start of the Course:**

* **Basic computer knowledge**

**Expected Knowledge Gained at the end of the Course**

* **High level knowledge of System Administration topics allowing for a better understanding of the infrastructure computer applications run on in order to help size solutions in their future work.**

**ABET Assessment Criteria:**

* **A, B, C, I**

**Course Objectives:**

**Students entering the course with end-user or developer level knowledge of computer systems will leave the semester with a greater understanding of desktop support, system configuration and data center design that will help in their SysAdmin/Operations/Developer team interactions when entering the workforce.**

**Textbook:**

* **None**

**Topics:**

* **Desktop support**
* **System design**
* **Infrastructure components**
* **Data Center planning**
* **Networking**
* **Operating Systems**
* **Server Hardware**
* **Storage**
* **Applications/Services**
* **Security**
* **Operations**
* **Disaster Recovery**
* **Virtualization**

**Course Outline:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Lecture** | **Date** | **Topic** | **Assignments/Tests/Labs** |
| **1** | **1/21/2014** | **Introduction and System Administration Defined** | **Pre-Test** |
| **2** | **1/23/2014** | **Ethics** |  |
| **3** | **1/28/2014** | **Desktop Support Part 1** | **HW1 (Due 2/6)** |
| **4** | **1/30/2014** | **Desktop Support Part 2** |  |
| **5** | **2/4/2014** | **Desktop Support Part 2** | **Lab 1** |
| **6** | **2/6/2014** | **System Design and Life cycle** |  |
| **7** | **2/11/2014** | **Physical Infrastructure / Data Center Planning** | **HW2 (Due 2/18)** |
| **8** | **2/13/2014** | **Networking** |  |
| **9** | **2/18/2014** | **Networking** |  |
| **10** | **2/20/2014** | **Subnetting** | **Test 1 Review** |
| **11** | **2/25/2014** | **Lab 2 – Subnetting** |  |
| **12** | **2/27/2014** | **Test 1** |  |
| **13** | **3/4/2014** | **Operating Systems Win2008R2** |  |
| **14** | **3/6/2014** | **Operating Systems Win2008R2/RHEL6** |  |
| **15** | **3/11/2014** | **Operating Systems RHEL6** |  |
| **16** | **3/13/2014** | **Operating Systems FreeBSD/RHEL6** | **Lab3** |
| **17** | **3/18/2014** | **Operating Systems FreeBSD/RHEL6** |  |
| **18** | **3/20/2014** | **Operating Systems FreeBSD/RHEL6** | **HW3 (Due 4/3)** |
| **19** | **3/25/2014** | **Spring Break – No Class** |  |
| **20** | **3/27/2014** | **Spring Break – No Class** |  |
| **21** | **4/1/2014** | **Operating Systems FreeBSD/RHEL6** |  |
| **22** | **4/3/2014** | **Operating Systems FreeBSD** |  |
| **23** | **4/8/2014** | **Storage** | **Lab 4** |
| **24** | **4/10/2014** | **Security** |  |
| **25** | **4/15/2014** | **Disaster Recovery** |  |
| **26** | **4/17/2014** | **Disaster Recovery** | **HW4 (Due 4/29)** |
| **27** | **4/22/2014** | **Operations/Applications** | **Test 2 Review** |
| **28** | **4/24/2014** | **Enterprise Virtualization Overview** |  |
| **29** | **4/29/2014** | **Enterprise Virtualization Overview** |  |
| **30** | **5/1/2014** | **Virtualization System Building** | **Test 2**  **Final Project Start** |
| **31** | **5/6/2014** | **Virtualization System Building** |  |
| **32** | **5/8/2014** | **Virtualization System Building** |  |
| **33** | **5/13/2014** | **Virtualization System Building** |  |
| **34** | **5/15/2014** | **Project Presentation/Review of Concepts** | **Final Project Due** |

**Grading Policy:**

**Homework 20%**

**Attendance 10%**

**Exams (2) 30%**

**Final Project 20%**

**Labs 20%**

* **Due to the nature of the wide range of topics taught in the class, attendance is mandatory. For each of your first two un-excused absences, you will receive -5% from your final grade. Upon your third absence you will receive an F for the class. In order to receive an excused absence, you must e-mail the instructor with a valid explanation for your absence and it must be approved by the instructor in a reply e-mail PRIOR to the start of that lecture.**
* **No late homework will be accepted. If homework is not turned in on time you will receive a zero (0%) for that assignment.**
* **If a lab is missed due to an excused absence, you may schedule a time to make up the lab with the instructor. If you miss a lab due to an unexcused absence, the lab may not be made up.**

**Notes:**

* **Course outline subject to change based on class progress. If adjusted, new Syllabi will be e-mailed to students**
* **Disabilities: Students with disabilities who need academic accommodations must consult with the Disability Services Office, 177 Arts Building, 303-556-8387, TTY 303-556-8484, FAX 303-556-2074**
* **Academic Integrity**
  + **Students are expected to maintain the Academic Code of Honor. See link below:**

[**http://catalog.ucdenver.edu/content.php?catoid=6&navoid=530&returnto=search#Academic\_Honor\_Code\_and\_Discipline\_Policies**](http://catalog.ucdenver.edu/content.php?catoid=6&navoid=530&returnto=search#Academic_Honor_Code_and_Discipline_Policies)

* + **Discussion about homework, labs, or projects with your classmates is encouraged but you are responsible for completing and writing your own solutions to the homeworks, labs and projects. If you violate this, your work will be considered cheating, and your final grade will be an F.**
  + **DO NOT ATTEMPT TO CHEAT DURING THE EXAMINATIONS. If you are caught, you will be asked to leave the classroom immediately and will receive a final grade of F automatically.**