

COURSE SYLLABUS

# Course Prefix, Number, and Title:

CSC437, Survey of Enterprise Systems

# Credits:

3

# University Name:

Dakota State University

# Academic Term/Year:

Spring 2025

## Last date to Drop and receive 100% refund:

* 22 January 2025

## Last date to Withdraw and earn a grade of 'W':

* 7 April 2025

# Course Meeting Time and Location:

Online

# Instructor Information:

## Name:

* Dr. Kyle Cronin

## Office:

BIT 208

## Phone Number(s):

* 605-256-5838

## Email Address:

Kyle.cronin@dsu.edu

## Office Hours:

MW, 9-12PM, 2-4PM; T, 2-4

For non in-person communications, please email me in advance; I’ll setup a Zoom call and we can chat. Feel free to call without an appointment, but setting up a time ensures I won’t have someone else in my office

# Approved Course Description:

## Catalog Description:

* This course addresses the basics of implementing and managing mission-critical applications that are found in most organizations. This course has a significant hands-on component that utilizes popular network operating systems. Representative topics include Web servers; electronic mail systems; backup and recovery software; network monitoring and management tools; and remote access

## Additional Course Information:

* In essence, this course will emulate a day (or rather a semester) in the life of a system administrator. It should be noted that students will use real server hardware, real server operating systems, and real enterprise software. Real world problems may be encountered and will require critical thinking and troubleshooting skills.

# Prerequisites:

## Course Prerequisite(s):

* CSC385 & CSC163 or CIS350 & CSC164

## Technology Skills:

* Students should have a strong knowledge of networking, hardware, and network concepts that have been covered in previous courses

# Student Learning Outcomes:

Students will gain a strong knowledge of how enterprise level applications operate within a business environment. Special focus will be placed upon gaining practical hands on experience with software used by network admins. The topics covered will include

* Hardware differences as they relate to enterprise applications
* Database systems, setting up, securing, and accessing
* Physically securing and ensuring the protection of large enterprise systems
* Leveraging cloud computing/publicly hosted virtual services
* Implement private virtual environments and understand the services, components, and security problems associated with them
* Determine how hypervisors handle virtual machine requests to access resources, such as CPU and memory
* Determine how to evaluate costs when pursuing a virtualization project
* Security and technical components of how virtualization operate

# Course Materials:

## Required Textbook(s):

* No textbook is required

## Required Supplementary Materials:

* High speed internet access to DSU’s IA lab is required

## Optional Materials:

* None

# Course Delivery and Instructional Methods:

Lecture with hands on lab components

# Communication and Feedback:

## Preferred Email Contact Method:

* Send emails from your DSU-Student email account to [kyle.cronin@dsu.edu](mailto:kyle.cronin@dsu.edu) for official coursework correspondence.

## Email Response Time:

* Emails are generally answered within 48 hours, except for weekends and holidays. In the event that I am out of the office or my access to email will be delayed or not possible, you will receive a message indicating so.
* Emails (or other messages) requesting extensions or submitting late work may not receive a reply.

## Feedback on Assignments:

* Assignments will be graded within 1-2 weeks of the due date, excluding weekends, holidays, and travel requirements.

## Requirements for Course Interaction:

* Students are expected to communicate via DSU email. Other forms of communication may be used, however the official mechanism for communication in this class is DSU email.
* Online students are required to watch all course videos before attempting assignments, quizzes, etc.
* All students are expected to check their DSU email & respond to messages daily.
* Important updates for class will be posted to D2L, students should check it before beginning any assignments.

# Evaluation Procedures:

## Assessments:

* 13 Labs @ 50 points each
* 13 quizzes @ 20 points each (the intro/syllabus quiz is only worth 10 points)
* 1 Final Exam @ 100 points
* 1000 points total

## Final Examination:

* The final exam will open on April 29th

## Performance Standards and Grading Policy:

* 0% to <60%: F
* 60% to <70%: D
* 70% to <80%: C
* 80% to <90%: B
* 90% to 100%: A
* All forms of academic dishonesty will result in failure of the course. Copying and pasting text that you did not author and submitting it as your own work is a form of academic dishonesty and will result in failure of the course, regardless if it is on an exam or assignment.
* Students are not allowed to submit work that was attempted or completed in a prior offering of the course. Resubmitted work will be considered self-plagiarism and will not be accepted.
* Students who post assignments to websites (e.g. Chegg, CourseHero, and HomeworkHelper) for solutions will automatically fail the course and will be referred to the academic integrity board for potential expulsion.
* Academic dishonestly disclosures may not occur until after the last date for withdraw has passed.
* Instances of academic dishonesty may cause prior submitted/graded submissions to be reevaluated for academic dishonesty.

# Tentative Course Outline and Schedule:

|  |  |  |  |
| --- | --- | --- | --- |
| Week | Topics | Lab Assigned | Notes |
| 0 | Intro Things, Get Logged In | Introduce Yourself to Discussions, Quiz |  |
| 1 | Hard Disks & SANs | Lab01- iSCSI + Quiz |  |
| 2 | Servers, IPMI, & Server Access | ESXi | Lab02- Server Build, Lab03- Install Hypervisor + Quiz | \*DSU Closed Monday |
| 3 | Managing Network Settings & Making VMs | Lab04- Deploy Networking + Quiz |  |
| 4 | Active Directory Life | Lab05- Deploy Active Directory + Quiz |  |
| 5 | vCenter | Lab06- Deploy Management + Quiz |  |
| 6 | Clustering | Lab07- Create a Cluster + Quiz | \*DSU Closed Monday |
| 7 | VDI | Lab08- VDI + Quiz |  |
| 8 | Provisioning VMs | Lab09- Accessing VDI + Quiz |  |
| 9 | Load Balancers & Web Applications | Lab10- HA Proxy & Lab11- Web Apps + Quiz |  |
| 10 | DNS & Email | Lab12- DNS & Lab13- Email + Quiz |  |
| 11 | Final Exam | | | |
| 12 | SEMESTER IS OVER! | | | |
| 13 |  | | | |

A more detailed version of this spreadsheet is available in D2L.

# Student Success Services and Supports:

## ADA Accommodations:

* Dakota State University strives to ensure that physical resources, as well as information and communication technologies, are reasonably accessible to users to provide equal access to all. If you encounter any accessibility issues, you are encouraged to immediately contact the instructor of the course and Dakota State University's Office of Disability Services, which will work to resolve the issue as quickly as possible.
* DSU's Office of Disability Services is located in the Learning Engagement Center and can be contacted by calling 605-256-5121 or emailing [dsu-ada@dsu.edu](mailto:dsu-ada@dsu.edu). Students seeking ADA accommodations (such as non-standard note taking or extended time and/or a quiet space taking exams and quizzes) can access the DSU website <https://dsu.edu/student-life/disability-services/index.html> for additional information and the link to the Disability Services Request Form. You will need to provide documentation of your disability and the ADA Coordinator must confirm the need before officially authorizing accommodations.

## DSU Knowledge Base:

* The DSU Knowledge Base contains links and resources to help students by providing information about the following topics: User Accounts & Passwords, Academic Tools & Resources, Software & Apps Support, WiFi & Network Access, Campus Emergency Alert System, Campus Printing, IT Security & Safe Computing, and the Support Desk (which is there to help both on and off-campus students). The Knowledge Base can be accessed through the link below:
* [DSU Knowledge Base](https://support.dsu.edu/TDClient/KB/)

## D2L Support for Students:

* The D2L Support for Students site is designed to provide DSU students a D2L support resource center that contains user guides, tutorials, and tips for using the D2L learning environment. The D2L Support for Students site can be accessed through the link below:
* [DSU D2L Support Resources for Students](https://d2l.sdbor.edu/d2l/home/606414)

# Classroom Policies:

## Attendance and Make-up Policy:

* Classroom attendance for in-person courses is required.
* Late assignments will not be accepted.
* On-campus students must be present on the date of a given exam otherwise a zero will be given.

# DSU Policies:

## Complaint Procedure

Dakota State University seeks to resolve student concerns and complaints in a fair and prompt manner. Students may file a complaint using the [DSU Concerns and Feedback form](https://forms.office.com/Pages/ResponsePage.aspx?id=JbW1y5U7k02UF027PIlRLvmUMgfwMGdDnmq986XI9JFUNDBLN0NCRlE4TFAwVlRDUjVCVjZZRlJSRSQlQCN0PWcu). SARA complaints from out-of-state students may be filed using the procedures noted [here](https://public-info.dsu.edu/sd-sara/complaint-procedures/).

## Grade Appeal Policy

If a student believes the final grade assigned in a course was inappropriate, he/she may appeal that grade by filing a formal grade appeal within 15 days of the start of the next academic session. Please see the DSU policy on [Appealing Academic and Administrative Decisions](https://dsu.edu/root-files/03-30-00.pdf) for the required process and form to appeal a final grade.

## Student Verification Statement and Proctoring Policy:

* Federal law requires that universities verify the identity of students when course materials and/or course assessment activities are conducted either partially or entirely online. A student’s Desire2Learn (D2L) login and password are intended to provide the student with secure access to course materials and are also intended to help the university meet this federal mandate. Some DSU Faculty also require the use of a proctor for exams in distance-delivered (Internet) courses and this requirement provides a second level of student identity verification. Students are responsible for any proctoring fees, if applicable. Finally, an instructor who uses web conferencing technology may require students to use a webcam during exams as another means of student identity verification through voice and visual recognition.

# South Dakota Board of Regents Policy Statements

## Freedom in Learning Statement:

Under Board of Regents and Regental Institutions policy, student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Discussion and debate are critical to education and professional development. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. While the exploration of controversial topics may be an important component of meeting the student learning outcomes in a course, no student will be compelled or directed to personally affirm, adopt, or adhere to any divisive concepts (as defined in SDCL 13-1-67). Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact their home institution to initiate a review of the evaluation.

## ADA Statement:

The Regental Institutions strive to ensure that physical resources, as well as information and communication technologies, are reasonably accessible to users to provide equal access to all. If you encounter any accessibility issues, you are encouraged to immediately contact the instructor of the course and the Office of Disability Services, which will work to resolve the issue as quickly as possible. Please note: if your home institution is not the institution you are enrolled at for a course (host institution), then you should contact your home institution’s Office of Disability services. The disability services at the home and host institution will work together to ensure your request is evaluated and responded to in a timely manner.

## Academic Dishonesty and Misconduct:

Cheating and other forms of academic dishonesty and misconduct run contrary to the purposes of higher education and will not be tolerated. Academic dishonesty includes, but is not limited to, plagiarism, copying answers or work done by another student (either on an exam or an assignment), allowing another student to copy from you, and using unauthorized materials during an exam. The Regental Institution’s policy and procedures on cheating and academic dishonesty can be found in your home institution’s Student Handbook and the governing Board of Regents policies can be found in [BOR Policy 2.9.2](https://public.powerdms.com/SDRegents/documents/1587741) and [BOR Policy 3.4.1](https://public.powerdms.com/SDRegents/documents/1680638). The consequences for cheating and academic dishonesty are outlined in policy.

## Acceptable Use of Technology:

Acceptable Use of Information Technology Resources: While Regental Institutions strive to provide access to computer labs and other technology, it is the student’s responsibility to ensure adequate access to the technology required for a course. This may include access to a computer (not Chromebooks, iPads, etc.), webcam, internet, adequate bandwidth, etc. While utilizing any of the information technology systems students, faculty and staff should observe all relevant laws, regulations, [BOR Policy 7.1](https://public.powerdms.com/SDRegents/documents/1727287), and any institutional procedural requirements.

## Emergency Alert Communication:

In the event of an emergency arising on campus under BOR Policy 7:3, your Regental Home Institution will notify the campus community via the emergency alert system. It is the responsibility of the student to ensure that their information is updated in the emergency alert system. The student’s cell phone will be automatically inserted if available and if not, their email address is loaded. Students can at any time update their information in the student alert system.