



North Idaho College

Online · Business · Computer Information Technology

Systems Administration III Projects

CITE-209

Spring 2023 Section 200 3 Credits 01/09/2023 to 05/11/2023 Modified 01/04/2023

Contact Information

Course email Address: *cite-208@studentsnic.onmicrosoft.com*

Professor: Randy Graves

Email: rkgraves@nic.edu

Office: Hedlund 224D

Phone: (208) 769-7859

Website: <http://www.linkedin.com/in/rkgraves/> (<http://www.linkedin.com/in/rkgraves/>)

Online Office Hours:

Monday - Thursday: 7:30 - 8:00 AM, Noon - 12:30 PM, and 3:30 - 4:00 PM

Friday: 8:00 - 8:30 AM & 1:30 - 2:00 PM

Or, by appointment

Meeting Times

Online - Canvas

Asynchronous-Online (no scheduled meeting times), with weekly assignments

Description

This course uses projects to teach the skills necessary to support enterprise network infrastructures. Projects include deploying an enterprise network infrastructure, implementing advanced user and group management, implementing advanced networking services, supporting cross vendor network integration, supporting identity management, designing for fault tolerance and disaster recovery.

Class Resources

Microsoft certification test prep software (provided)

Microsoft certification exam voucher (provided)

Price: (include in course fee)

Outcomes

Upon successful completion of this course students will be able to:

- Implement advanced network services
- Deploy and support digital certificates
- Implement advanced file services
- Deploy and support cross-platform network integration
- Plan and implement fault tolerant solutions
- Deploy disaster recovery solutions

Assessment

Criteria

Time Management & Professional Conduct:—10%

Assignments completed on time, demonstrate a positive problem-solving attitude, efficiently manage course responsibilities, effective instructor & peer communications, participate in peer-collaboration, demonstrate soft skills(1). Professionally share, manage, and maintain, course resources.

Notes:(1)

<http://www.techrepublic.com/blog/10things/10-highly-valued-soft-skills-for-it-pros/3353>)

http://en.wikipedia.org/wiki/Soft_skills

Project: Management, Collaboration, & Group Participation — 60%

Students will participate in a collaborative course project. Grading will be based on management of assign tasks, peer collaboration, and participation.

Final Project — 30%

Students will complete an individually assigned course project; working independently and without human assistance.

Note:

- Late work is not accepted

Grades Assigned by Overall Percentage:

93%+	90 to 92%	87 to 89%	83 to 86%	80 to 82%	77 to 79%	73 to 76%	70 to 72%	Below 70%
A	A-	B+	B	B-	C+	C	C-	no credit

CITE-208 (lecture) is part of a two course package which also include CITE-209 (lab).

Schedule

CITE-208 & 209 Course Schedule - Spring 2023 (Online)		Due Sunday 11:59 PM rev-0
Week-1 (1-9)	Course Introduction: - Project Based Learning - Final Project - Final Exam: Microsoft Certification Exam Project: ESXi Basic Configuration - patching ESXi - install a 3rd Party SSL certificate - ESXi User accounts - HED-224G RD Gateway with DUO	Projects: - patching ESXi - install a 3rd Party SSL certificate - ESXi User accounts - HED-224G RD Gateway with DUO
Week-2 (1-17)	<i>(Monday) Martin Luther King, Jr. Holiday (Campus Closed)</i> Project: ESXi Advanced Configuration - IPv4 & IPv6 - NTP - Networks - iSCSI & NFS	Projects: - IPv4 & IPv6 - NTP - Networks - iSCSI & NFS

Week-3 (1-23)	Project: Install VMs - Server 2019 (DC1 & Server1) - Windows 10 - pfSense Firewall	Projects: - Server 2019 (DC1 & Server1) - Windows 10 (Win10) - pfSense Firewall (PF1)	
Week-4 (1-30)	Project: Basic Network Services - DNS - DHCP - Active Directory	Project: Basic Network Services	
Week-5 (2-6)	Project: Routed Infrastructure - pfSense Router - Split-Brain DNS - IPv4 & IPv6 troubleshooting	Project: Routed Infrastructure	
Week-6 (2-13)	<i>(Monday) Presidents Day Holiday (Campus Closed)</i> Project: SSL - wildcard & FQDN SSL certificates - Active Directory Join	Project: - SSL - AD Join	
Week-7 (2-21)	Project: Review/Troubleshooting		
Week-8 (2-27)	Project: Linux Install - OpenSUSE Install - Post-Installation Configurations	Project: Linux Install and Config (w/extra credit)	

Week-9 (3-6)	Project: Linux Services - Web Server (Apache) - DNS Server (BIND)	Project: Linux Services	
Week-10 (3-13)	Project: Security - pfSense - pfBlockerNG - OpenVPN	Project: Security - pfSense	
Week-11 (3-20)	Project: Azure AD	Project: Azure AD	
(3-27)	<i>Spring Break March 29 – April 2 (Campus Closed)</i>		
Week-12 (4-3)	Final Project: Review	Final Project Begins on Friday	
Week-13 (4-10)	Final Project:		

Week-14 (4-17)	Final Project:	
Week-15 (4-24)	Final Project:	
Week-16 (5-1)	Final Project:	Final Project Due, Thursday 11:59 PM
Finals (5-8)	Final Exam – Microsoft Certification Exam (2 attempts, to be completed no later than Wed 5:00 PM)	

When	Topic	Notes
Attendance		Attendance: Asynchronous-Online (no scheduled meeting times) with weekly assignments

Additional Items

Computer and Internet Access:

This course has both face-to-face and online (Internet) components. To be successful with this course students are required to have readily available access to a reliable computer with dependable high speed Internet access.

Acceptable Computer Use Policy:

The computing hardware, software, and other tools, utilized during this course are intended solely to support learning and the course objectives. Do not modify, install, or remove any hardware, software, change the wallpaper, or add/change any other configurations, unless directed to do so by your instructor.

Gaming is not allowed in the lab at any time.

Acceptable Internet Use Policy:

Internet access, when available, is provided solely to support classroom learning and the course objectives. Personal Internet use may be made available outside of active class hours.

Acceptable Cell Phone Use Policy:

Using your cell phone during class (voice or text) is disruptive to class and those around you. During class time please silence your cell phone and put it away (out of sight). If you need to use your phone please step outside our classroom/lab and find a quiet place to do so. This is both appreciated and respectful! Thank you.

Acceptable Food and Drink Use Policy:

Food is not allowed at the computer work area at any time. Drinks are allowed. Please pick up after yourself and keep your area clean.

FREE Academic Tutoring: Free, unlimited academic tutoring is available to all current NIC students. Stop by The Cardinal Learning Commons in LKH 118 to create an account or visit the Academic Tutoring website www.nic.edu/clc/tutoring to sign up for tutoring, view tutor schedules, set appointments, or to learn more about the tutoring program.

Flexibility Statement:

The instructor reserves the right to revise class calendar, modify content, and/or substitute assignments in response to institutional, weather, or class situations. Changes will be announced in class. Students will be held responsible for all changes.

Division Policies

Student Responsibility

As outlined in the Student Code of Conduct, all North Idaho College students have both rights and responsibilities: Please access www.nic.edu/ferpa/StudentCode/index.htm for complete information that pertains to this subject. For a complete explanation of the North Idaho College Statement on [Academic Honesty & Academic Integrity](#) (<http://www.nic.edu/modules/images/websites/121/file/section5/5.06.01policy.pdf>), please refer to Policy 5.06 & Procedure 5.06.01:

Academic Integrity

Disruptive behavior in the class is not tolerated. To quote from the NIC "Student Code of Conduct," Article II, (found in the Student Handbook):

In order to carry out North Idaho College's Mission and to create a community of learners, the students, faculty, staff, and administrators must share common principles or values. These values – which include honesty, trust, fairness, respect, and responsibility – make up academic integrity.

Violations of academic integrity may result in failure of an assignment, failure of the course, or more serious sanctions.

Institutional Policies

Academic Dishonesty

Violations of academic integrity involve using or attempting to use any method that enables an individual to misrepresent the quality or integrity of his or her work at North Idaho College. These violations include the following:

- Cheating: using or attempting to use unauthorized materials, information, or study in any academic exercise.
- Fabrication: falsifying or inventing any information or citation in an academic exercise.
- Plagiarism: knowingly representing the words or ideas of another as one's own in an academic exercise.
- Violation of Intellectual Property: stealing, altering, or destroying the academic work of other members of the community or the educational resources, materials, or official documents of the college.
- Facilitating Academic Dishonesty: knowingly helping another to attempt to violate any provisions of this policy."

Violations of academic integrity may result in failure of an assignment, failure of the course, or more serious sanctions.

"For a complete explanation of the North Idaho College Statement on Academic Honesty & Academic Integrity please refer to Policy 5.06 & Procedure 5.06.01: <http://www.nic.edu/policy/>

Student Code of Conduct

The Student Code of Conduct applies to any student enrolled at North Idaho College. This includes, but is not limited to, face-to-face classes and Internet classes.

NIC shall maintain a Student Code of Conduct that specifically addresses prohibited behavior and assures due process for alleged violations. The Code of Conduct shall make clear possible sanctions for such actions. [Policy Manual \(http://www.nic.edu/websites/default.aspx?dpt=121&pageId=\)](http://www.nic.edu/websites/default.aspx?dpt=121&pageId=) (See 5.06)

Disability Support Services and the Americans with Disabilities Act (ADA)

In compliance with the Americans with Disabilities Act of 1990 and Section 504/508 of the Rehabilitation Act of 1973, North Idaho College provides accommodations to eligible students who experience barriers in the educational setting due to learning, emotional / mental, physical, visual, or hearing disabilities. Instructors will provide accommodations to students only after having received a Letter of Accommodation from Disability Support Services (DSS).

If a student would like to request accommodations, he or she must contact DSS so that a Letter of Accommodation may be sent to the instructor. Students requesting accommodations should contact DSS as early in the semester as possible to avoid delay of accommodation due to student load. Accommodations are not retroactive. DSS provides academic accommodations, access, assistance and services at NIC and at the North Idaho Consortium of Higher Education campus.

Contact:

[Disability Support Services Website](#)

(208) 769-5947

Withdrawal

Please check the [NIC Calendar \(https://www.nic.edu/calendar/\)](https://www.nic.edu/calendar/) for the last day students can withdraw from courses.

Instructor-Initiated Withdrawal: An instructor has the right to withdraw a student for academic reasons. For more information, see the [Instructor-Initiated Withdrawal Procedure \(https://www.nic.edu/modules/images/websites/121/file/section5/5.04.02procedure.pdf\)](https://www.nic.edu/modules/images/websites/121/file/section5/5.04.02procedure.pdf).

Financial Aid Satisfactory Progress (SAP): Federal Regulations require North Idaho College to establish Satisfactory Academic Progress standards (SAP) for all financial aid recipients. The purpose of SAP standards are meant to ensure that students and academic institutions are held accountable to the taxpayer-funded federal student aid programs while students complete their academic goals in a timely manner. This process monitors student performance in all terms of enrollment, including terms in which the student did not receive financial aid. For more information, see the [Financial Aid Satisfactory Progress \(http://www.nic.edu/websites/default.aspx?dpt=29&pageId=3025\)](http://www.nic.edu/websites/default.aspx?dpt=29&pageId=3025) website.

For more information on withdrawals, see the [NIC Student Accounts \(http://www.nic.edu/websites/default.aspx?dpt=12&pageId=177\)](http://www.nic.edu/websites/default.aspx?dpt=12&pageId=177) website.

Title IX

North Idaho College 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. If you report this to any college employee, (except for a licensed counselor or health care professional) she or he must notify our college's Title IX coordinator about the basic facts of the incident (you may choose whether you or anyone involved is identified by name). For more information about your options at NIC, please go to: [www.nic.edu/titleIX \(http://www.nic.edu/titleIX\)](http://www.nic.edu/titleIX) or call (208) 676-7156

Removal From Class For Non-Attendance

Attendance is based on your participation in this class. Failure to attend will result in your being removed from this class and may result in your financial aid award being reduced. You are responsible for confirming the accuracy of your attendance record.

SPECIAL STATEMENT ON COVID-19

Your safety, health, well-being, and that of our faculty and staff are our primary concerns. Everyone is expected to abide by college measures to mitigate the risk of spreading COVID. Circumstances can change

rapidly, which may require a change in the delivery method of courses, for example a move from face-to-face to hybrid or online. Continue to visit the North Idaho College [COVID-19 webpage](#) for the latest information.

Students experiencing symptoms related to COVID-19 or that have tested positive for COVID-19 should not attend class and should call Rapid-Trace to self-report: (813) 699-3551. If you were in close contact with a COVID-19 positive case, please call Rapid-Trace to self-report. Rapid-Trace will confidentially notify NIC on your behalf and assist with information and resources for effective self-quarantine, if applicable.

Students in healthcare programs experiencing symptoms related to Covid-19 should not attend class and contact the Healthcare Programs Student COVID Response Team HPNstudentcovidreporting@nic.edu for further guidance.

Students enrolled in programs associated with healthcare may have different requirements for masking in the lab and clinical settings.

COVID-19 Absences

As with any absence from class, students will need to communicate with professors directly to establish a plan for keeping pace with course material and submission of assignments during a quarantine period.

COVID-19 Student Resources

This is a challenging time to meet your academic goals. Please use the [Student Resources](#) for information and resources on basic needs such as housing, food, financial aid, and medical and mental health.

Please also visit the [Access to Computers, Internet & E-Learning Support](#) webpage for information on the technology and resources you will need to be successful.

For general questions about technology, [contact the IT Help Desk](#) at helpdesk@nic.edu or 208.769.3280.

NIC leadership will continue to monitor CDC recommendations, engage in weekly discussions with Panhandle Health District, and track local indicators for changes in conditions that may lead to greater risk.