

Online · Business · Computer Information Technology

# Linux System Administration **CITE-165**

Fall 2023 Section 200 3 Credits 08/21/2023 to 12/14/2023 Modified 08/14/2023



### Contact Information

Course email Address: cite-165@studentsnic.onmicrosoft.com

### Professor, MCT: Randy Graves

Email: rkgraves@nic.edu

Office: HED-224D Phone: (208) 769-7859

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

#### Office Hours:

Monday - Thursday: 9:30 - 10:00 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

This course is an online lecture section taught online in an online platform.

CITE-165- 200	Linux System Admin	Online - Aug 21 to Dec 13

Students must be diligent in adhering to the course schedule and submit all assignments/exams in accordance to the posted course schedule. Late work is not accepted!



This course introduces the student to the intermediate level of system administration using Linux operating systems. Additionally, the course provides the broad-based knowledge necessary to prepare students for further study in other specialized security fields and will also appeal to Microsoft professionals seeking to gain Linux experience.

## Materials

CISCO NETWORKING ACADEMY

CITE-165: Linux System Admin

Partner: NDG Linux II (English - 2.00)

To access the course: - NIC Canvas will not be used for this course

- 1. www.netcad.com
- 2. you will use your existing CISCO NETWORKING ACADEMY account.
- 3. you will have received an access code for you to use to register for the class.

#### Office Software

Office 365 (https://1drv.ms/x/s!AlcQsaSeOFpCgbNSJ1Rs\_fWNrXAJsw)

Office 365 (including Word) is available for free for NIC students, staff and faculty. Here is a link to the information regarding how to download the full desktop version of Office to your computer:

Microsoft Office Install.pdf

(http://coursecontent.nic.edu/IT/KnowledgeBaseArticles/MicrosoftOfficeInstall.pdf)

The Office 365 Manual on the link above has step-by-step instructions regarding the free installation procedure.

If you have any trouble, contact the NIC Help Desk helpdesk@nic.edu

### .... Outcomes

Upon successful completion of this course, students should be able to:

- Demonstrate Linux command line navigation.
- Manage user accounts and groups.
- Maintain system time and logging.
- Manage server services (e.g., SMTP).
- Manage printers and printing.
- Manage data and implement basic shell scripts.
- Automate system administration tasks by scheduling jobs.
- Install and configure a workstation (including X) and connect it to a LAN.
- Research Internet protocols. Setup host security.
- Secure data using encryption.
- Demonstrate appropriate and ethical behavior and good work habits.



#### 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

#### Chapter Exams: 60%

Randomly selected multiple choice questions taken from the chapter study guides

#### Final Exam - 30%

The final exam will be the CompTIA Linux+ certification exam (exam voucher provided)

Please Note: Late work is not accepted

#### Grades Assigned by Overall Percentage:

93%+	90 to 92%	87 to 89%				73 to 76%		
А	A-	B+	В	B-	C+	С	C-	no credit

## # Schedule

Week-1 Course Introduction (Aug- Netacad Website 21) Movie: Revolution OS	CITE-165	5 Course Schedule – Fall 2023 rev-0	Due by Sunday 11:59 PM	
	(Aug-	Netacad Website	Quiz: Syllabus Quiz	

Week-2 (Aug- 28)	Chapter 1 - Introduction Chapter 2 – Using the Shell	Chapter 01 Exam Chapter 02 Exam	
Week-3 (Sept-4)	Labor Day  Chapter 3 - Configuring the Shell  Chapter 4 - File Globbing	Chapter 03 Exam Chapter 04 Exam	
Week-4 (Sept- 11)	Chapter 5 – File Manipulation Chapter 6 – Finding Files	Chapter 05 Exam Chapter 06 Exam	
Week-5 (Sept- 18)	Chapter 7 – Text Utilities Chapter 8 – Regular Expressions	Chapter 07 Exam Chapter 08 Exam	
Week-6 (Sept- 25)	Chapter 9 – the vi Editor Chapter 10 – Standard Text Streams and Redirection	Chapter 09 Exam Chapter 10 Exam	
Week-7 (Oct-2)	Chapter 11 – Managing Processes Chapter 12 – Archive Commands	Chapter 11 Exam Chapter 12 Exam	
Week-8 (Oct-9)	Chapter 13 – File Permissions Chapter 14 – File System Links	Chapter 13 Exam Chapter 14 Exam	

Week-9 (Oct-16)	Mid-Term Exam	Mid-Term Exam - Chapters 1-14
Week- 10 (Oct-23)	Chapter 15 – Hardware Configuration Chapter 16 – The Boot Process	Chapter 15 Exam Chapter 16 Exam
Week- 11 (Oct-30)	Chapter 17 – Bootloaders Chapter 18 – Runlevels	Chapter 17 Exam Chapter 18 Exam
Week- 12 (Nov-6)	Chapter 19 – Designing a Scheme Chapter 20 – Creating Partitions	Chapter 19 Exam Chapter 20 Exam
Week- 13 (Nov- 13)	Chapter 21 – Mounting Filesystems Chapter 22 – Maintaining Integrity	Chapter 21 Exam Chapter 22 Exam
Week- 14 (Nov- 20)	Review Thanksgiving Holiday (Wed – Fri)	

Week- 15 (Nov- 27)	Chapter 23 – Fixing Filesystems Chapter 24 – Package Management	Chapter 23 Exam Chapter 24 Exam	
Week- 16 (Dec-4)	Chapter 25 – Managing Shared Libraries Chapter 26 – Virtualization	Chapter 25 Exam Chapter 26 Exam	
Finals (Dec 11 – 13) Final Exam (Chapters 15 – 26) / (LPI LPIC-1 10 Exam)		PI LPIC-1 101 Certification	

## **≅** Additional Items

#### Computer and Internet Access:

This course is online (Internet). 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. Computer 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.

### Flexibility for Syllabus Changes Statement

The instructor and institution reserve the right to make any changes to the syllabus when necessary and with notification. The instructor reserves the right to revise class calendar, modify content, and/or substitute assignments in response to institutional, weather, or class situations. Students will be held responsible for

all changes." The changes will be communicated to students via announcement in the Learning Management System (LMS- Canvas) and/or during online class meetings.

### Academic Integrity Information

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

## Incompletes

An incomplete is assigned only if the student has been in attendance and has done satisfactory work to within three weeks of the end of the semester (or proportional length of time for a course of less than a semester in length). Incompletes are issued only in cases of extenuating circumstances, such as severe illness or injury. Incompletes are not issued in cases in which the student is simply unable to complete his/her work within the specified semester or session. If a final grade of "I" is recorded, the instructor will indicate in writing to the Registrar what the student must do to make up the deficiency. The instructor will indicate in the written statement what permanent grade should be entered if the Incomplete is not removed by the deadline.

All incomplete grades must be removed within six weeks after the first class day of the following term, excluding the summer session. If the Incomplete is not removed by that date, the grade reverts to the grade indicated by the instructor's written statement authorizing the incomplete.



#### Student Responsibility

As outlined in the Student Code of Conduct, all North Idaho College students have both rights and responsibilities: Please access www.nic.ferpa.StudentCode/index.htm for complete information that pertains to this subject. For a complete explanation of the North Idaho College Statement on <u>Academic Honesty & Academic Integrity</u>

(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.

### **1** 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 5.06.01in the <a href="MIC Policy Manual">MIC Policy Manual</a> (<a href="http://www.nic.edu/policy/">http://www.nic.edu/policy/</a>).

#### 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 (https://www.nic.edu/policy/all/506/) (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:

<u>Disability Support Services Website (https://www.nic.edu/dss/)</u> (208) 769-5947

#### Withdrawal

Please check the <u>NIC Calendar (https://www.nic.edu/calendar/)</u> 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 <a href="Instructor-Initiated Withdrawal Procedure">Instructor-Initiated Withdrawal Procedure</a> (https://www.nic.edu/policy/all/50402/).

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 <a href="Financial Aid Satisfactory Progress">Financial Aid Satisfactory Progress</a> (<a href="http://www.nic.edu/websites/default.aspx?dpt=29&pageId=3025">http://www.nic.edu/websites/default.aspx?dpt=29&pageId=3025</a>) website.

For more information on withdrawals, see the NIC Catalog (https://www.nic.edu/catalog/).

#### 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: <a href="NIC Title IX - Sexual Assault, Discrimination, and Harassment (https://www.nic.edu/titleix/)">https://www.nic.edu/titleix/)</a> 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.

#### Student Questions and Concerns

NIC instructors are a great resource for course related questions as well as general questions regarding your field of study and career. In addition, your instructor is your first point of contact if you have a question or concern about this course. Instructor office hours are posted here on the syllabus as well as in the campus directory. Division chairs are an additional resource you may contact if you are unable to resolve your question or concern with your instructor. The most current contact information for the division chair can be found here. Office of Instruction - Division Chairs (https://www.nic.edu/instruction/deans-and-division-chairs/)