



North Idaho College

Online · Business · Computer Information Technology

Information Security Fundamentals

CITE-142

Spring 2023 Section 200 3 Credits 01/09/2023 to 05/11/2023 Modified 01/23/2023

Contact Information

Instructor: Bob Quant

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Phone: 208.929.4036

Office: Hedlund Building Room 224 F

Office Hours: see schedule posted to the left of my office door

Meeting Times

This is an Online course. Follow the published schedule in this syllabus.

This class will use TestOut to conduct this course.

Students must be diligent in adhering to the course schedule and submit all assignments/exams in a timely manner.

1/9/2023 - 5/11/2023

Required:

- Access to the internet, speakers and/or headset to view courseware, conduct labs and watch videos.

Description

This course is an introduction to network security and overall security processes and offers in-depth coverage of the risks and threats to an organization's data, combined with a structured way of addressing the safeguarding critical assets. The course provides a foundation for those new to security practices as well as those responsible for protecting network services, devices, traffic, and data.

Materials

Online Course Material: This course content is in TestOut Learning Management System. NIC Canvas will be used for listing course assignments and grading unless otherwise indicated by the instructor.

The instructor will provide the TestOut access code for the course after the semester starts.

Class Curriculum:

TestOut - Security Pro

ISBN - 978-1-935080-44-2

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

At the completion of this course, the student should be able to:

- Describe why information security is essential in today's IT environment.
- Identify the goals of information security.
- Describe common security threats and their ramifications.
- Determine the factors involved in developing a secure information security strategy.
- Identify common attacks and describe how to safeguard against them.
- Describe communications, email, web, remote access, and wireless security issues.
- Evaluate various network devices and media and how best to secure them.
- Describe the basics of cryptography.
- Differentiate between physical security, disaster recovery, and business continuity.
- Utilize network diagrams.
- Demonstrate appropriate and ethical behavior and good work habits.

✓ Assessment

Evaluation Criteria

Criteria

There are several assignments that must be completed throughout the course.

Grades will be assigned based on the following:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Equivalency	92.00 – 100.00%	90.00 – 91.99%	88.00 – 89.99%	82.00 – 87.99%	80.00 – 81.99%	78.00 – 79.99%	72.00 – 77.99%	70.00 – 71.99%	68.00 – 69.99%	62.00 – 67.99%	60.00 – 61.99%	0 – 59.99

The graded assignments will be evaluated using the following point values:

Videos are 5 points x 164 videos = 820

Simulations are 15 points x 74 = 1110

Section Quizzes are 10 points x 78 = 780

Chapter Exams are 25 points x 14 = 350

Final Exam is 400 points

Category	Points
Videos (15% of Grade)	820
Labs (20% of Grade)	1110
Section Quizzes (15% of Grade)	780
Chapter Exams (20% of Grade)	350

Category	Points
Final Exam (30% of Grade)	400
TOTAL	3460

* Course Policies

- This class is organized by the week. So, each week, you will have a set of assignments due.
 - **Due dates and times are Sundays no later than 11:59 pm.** LATE ASSIGNMENTS ARE NOT ACCEPTED.
- **Communication:**
 - Use "*CANVAS INBOX Messages*" to communicate with your instructor.
- **Assignments:**
 - Most assignments in this class will be submitted within the TestOut-CITE 142-200 Introduction to Security Fundamentals-course (www.testout.com). Please follow the instructions for this course carefully and ask questions EARLY and OFTEN. If you have questions about anything in the class including how your grades are being calculated, **ASK**.
 - Worksheets Assignments will be located and submitted in **Canvas**.
 - Students who are unable to because of illness or emergency should personally contact their instructor. Illness and emergency related absences do not relieve students from the responsibility of making up any missed work. It is the responsibility of the student to obtain information concerning missed work and to see that it is completed and turned in. As a general rule late work is not accepted.
- **Grades:**
 - Your grades are shown in the TestOut-CITE 142-200 Introduction to Security Fundamentals-course (www.testout.com) gradebook by point value. To calculate your score add the total number of points possible for assignments and then divide your points earned by that number. This is a way you can keep a running tally of your points and grade. Please see the course syllabus on assessment information about how course grades are calculated.
- **Deadlines:**
 - Course assignments are **due no later than 11:59 pm on the date indicated (Sunday of each week)**. Late assignments will NOT be accepted. Please do not wait until the last minute to complete assignments. If you complete assignments ahead of the due date and time, it is much easier to troubleshoot issues that could prevent you from getting an assignment in on time. Remember technology while a major advantage to our lives is not always as dependable as we hope so do not put off assignments until the last minute and then be surprised by technology failures or other interruptions that can prevent you from submitting your work due!

- **Course Requirements/Attendance:**
 - For the online section in the spring, completing the course syllabus quiz will document your initial attendance to prevent from being automatically dropped. January 26 is the drop for non-attendance of spring semester course sections. Students who don't complete the course information quiz by the posted deadline will be dropped for non-attendance.
 - Students' attendance will be documented by attending class meetings, logging into TestOut and completing assignments for this class. Attending virtual class meetings, minimum of being logged in 5 times per week and completing at least one assignment per week, will meet the minimum attendance requirement. If I am asked to document the last date of attendance, I will use the date of the most recent login or assignment submitted.
 - **A minimum of 80% course attendance is required in order to receive course credit.**
- **Time Requirement:**
 - This course is an important foundational and essential core course for Network Administration program here at NIC. According to NIC, a three-credit class should take you a minimum of nine hours a week to complete. This is a rigorous class with many important innovative technologies contained herein so the nine hours per week estimate is accurate most weeks. Please plan accordingly.
- **IT Resources for Students at North Idaho College:**

The link below is for IT homepage. It summarizes all of the technical resources that are available for students at NIC.

[Student Resources link on the IT home page \(https://nic.teamdynamix.com/TDClient/1783/Portal/Home/?ID=cfc9acca-cbec-44ac-ad81-9b78d43cb762\)](https://nic.teamdynamix.com/TDClient/1783/Portal/Home/?ID=cfc9acca-cbec-44ac-ad81-9b78d43cb762)

- **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." Note: Division offices need to be notified in the event of substantive changes to your syllabus. This does not mean that we need to be notified of minor editing of dates and the correction of other minor editing mistakes. This needs to occur where there has been a significant revision, such as an exam being dropped or added, a module dropped or added, etc.

Course Expectations

1. Workplace Readiness Skills:

It is important for students to learn and follow workplace readiness skills that will be encountered in future careers. You will be expected to treat this class like a job. Think of your instructor as your boss and other students as coworkers and act accordingly. Our goal is to help you achieve your career goals by preparing you to be a high-quality employee. Local employers have stressed the importance of these workplace readiness skills to us and have asked us to include them in our courses where applicable. Here are some of the workplace readiness skills we (and employers) expect of our students:

- Attendance/Punctuality (including turning assignments in on time)

- Responsibility
- Time Management
- Problem-solving Skills (How would you solve this problem if this were your job?)
- Initiative (go above and beyond as needed)
- Written Communication Skills (including messages to your instructor)
- Respectfulness (especially to authority--think future employers)
- Professionalism
- Verbal and Non-Verbal Communication Skills
- Active Listening Skills
- Policy Awareness (including reading all course policies and material)
- Teamwork
- Business Ethics
- Leadership
- Customer Service
- Technology Skills (including the ability to contact tech support to solve problems)
- Adaptability/Flexibility
- Critical-thinking/Decision-making Skills
- Conflict Resolution
- Work Ethic
- Positive Attitude/Enthusiasm
- Critical Observation
- Self-Confidence
- Analytical/Quantitative Skills
- Interpersonal Skills
- Detail-oriented
- Organizational Ability
- Strategic Planning Skills
- Resilience/Grit/Self-efficacy
- Networking

These skills will all be very important for you to learn and demonstrate in your future career. You may not get the opportunity to practice/demonstrate all of these skills in this course but you certainly will get the opportunity to practice/demonstrate some of them.

2. Late Assignment:

Complete course assignments and submit them by specified deadlines. Late assignments will not be accepted for any reason. No exceptions. **It is suggested you work ahead just in case something unexpected arises.**

3. Online Course Communication Etiquette:

Instructor/student communication is best through CANVAS INBOX Messages.

The instructor will only communicate with the student enrolled in this course regarding information related to this course. It is not appropriate for an instructor to be contacted by anybody other than the student in matters relating to this course unless permission has been given in writing to NIC administration. Again, think of this course like a job and practice the appropriate workplace readiness skills you would at a job. This policy reinforces self-efficacy.

4. Course Navigation:

Students are expected to know how to navigate the course websites and use the tools within them.

- The [Canvas Student-Guide \(https://community.canvaslms.com/t5/Student-Guide/tkb-p/student#jive_content_id_Introduction\)](https://community.canvaslms.com/t5/Student-Guide/tkb-p/student#jive_content_id_Introduction) link explains how to use chapter exams, check the online gradebook as it is updated by the instructor, etc.
- The [TestOut \(https://www.testout.com/\)](https://www.testout.com/) link provides access to curriculum and assignments, and the ongoing points you are earning for assignments in their gradebook. Student tutorials are available at <https://support.testout.com/hc/en-us/sections/360007397513> (<https://support.testout.com/hc/en-us/sections/360007397513>).
- Please contact your instructor for support when it is class assignments and other course related questions.
- Please contact TestOut technical support when necessary for website support or technical questions. [Get-help-from-TestOut-Technical-Support \(https://support.testout.com/hc/en-us/articles/360037136114-Step-4-Get-help-from-TestOut-Technical-Support\)](https://support.testout.com/hc/en-us/articles/360037136114-Step-4-Get-help-from-TestOut-Technical-Support)

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

Schedule

** CITE 142 - The instructor reserves the right to revise the class calendar, modify the 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. **

Week	Start	Topics	Chapter & Readings	Assignments	Exams
1	Jan 9	Course Introduction TestOUT setup			
2	Jan 16	Introduction	1	Sections: 1.1, 1.2 and 1.3	Ch 1 Exam in TestOUT

3	Jan 23	Threats, Attacks, and Vulnerabilities	2	2.1, 2.2, 2.3 and 2.4	Ch 2 Exam in TestOUT
4	Jan 30	Physical	3	3.1, 3.2, and 3.3	Ch 3 Exam in TestOUT
5	Feb 6	Networks and Hosts Design and Diagnosis	4	4.1, 4.2, 4.3 and 4.4	Ch 4 Exam in TestOUT
6 & 7	Feb 13	Devices and Infrastructure	5	5.1, to 5.13	Ch 5 Exam in TestOUT
8 & 9	Feb 27	Identity, Access, and Account Management	6	6.1 to 6.10	Ch6 Exam in TestOUT
10 & 11	Mar 13	Cryptography and PKI Wireless Threats	7 & 8	7.1, 7.2, 7.3, 7.4 and 7.5 8.1, 8.2, and 8.3	Ch 7 Exam in TestOUT Ch 8 Exam in TestOUT
12		SPRING BREAK	3/27 to 4/2		
13	Apr 3	Virtualization, Cloud Security, and Securing Mobile Devices	9	9.1 to 9.9	Ch 9 Exam in TestOUT
14	Apr 10	Securing Data and Applications	10	10.1, 10.2, 10.3 and 10.4	Ch 10 Exam in TestOUT
15	Apr 17	Security Assessments	11	11.1 to 11.7	Ch 11 Exam in TestOUT

16	Apr 24	Incident Response, Forensics, and Recovery	12	12.1 to 12.8	Ch 12 Exam in TestOUT
17	May 1	Risk Management Governance and Compliance	13 & 14	13.1, 13.2, 13.3 14.1, 14.2, 14.3	Ch 13 Exam in TestOUT Ch 14 Exam in TestOUT
18	May 8	Finals			Final Exam

Complete all sections in each chapter.

Additional Items

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.

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.

Diversity Council:

North Idaho College is committed to its core theme of diversity, defined as a “learning environment that celebrates the uniqueness of all individuals and encourages cultural competency.” To support this value, the Diversity Council was formed to develop diversity initiatives campus-wide. The council works to foster a campus climate that is safe, inclusive, and equitable, as well as to provide support for diverse populations. For more information, contact Brian Seguin (blseguin@nic.edu), Jo Lien (jmlien@nic.edu), or Graydon Stanley (gastanley@nic.edu).

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>) 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.