

# **10524SYLLABUS**

## **CLASS NAME AND TITLE (COURSE CODE):**

CISS 310 SECURITY+ Network Security Fundamentals

SECTION 19122

3 Units

## **PREREQUISITES:**

None, but a background in computer networking is highly recommended.

## **SEMESTER:**

**SPRING 2024 SECOND 8 WEEKS - DATES – MAR 18, 2024 - MAY 11, 2024**

## **CLASS MEETING DAY, TIME, LOCATION:**

online -using CANVAS: <https://canvas.losrios.edu>

## **INSTRUCTOR NAME:**

**LARRY DUMAIS, MCSE**



## **INSTRUCTOR CONTACT INFORMATION:**

Email- [dumaisl@arc.losrios.edu](mailto:dumaisl@arc.losrios.edu)

Webpage- <https://ic.arc.losrios.edu/~dumaisl>

**Office Hours Mon 3-4pm Room Stem 301 Tuesday and Wednesday 3:20-5:20pm Online**

Textbook: ebooks provided by instructor.

## **CATALOG COURSE DESCRIPTION:**

This course is an introduction to the fundamental principles and skills of Information Technology security and risk management at the organizational level. Topics include network security, compliance and operational security, threats and vulnerabilities,

application and data security, host security, access control and identity management, and cryptography. The required content of the Computing Technology Industry Association (CompTIA) Security+ certification exam is covered.

### Student Learning Outcomes:

- describe and explain various types of attacks including malware, social engineering, and types of wireless attacks.
- examine criteria to measure the exposure and risk of internal and external security threats to the network, system infrastructure, and resources.
- examine the tangible and intangible costs of breaches to an organization's security, network resources, and proprietary information.
- analyze a given scenario, then select and configure the appropriate solution to establish host, application, and data security.
- analyze the benefits of secure authentication and complex password techniques vs. the costs of administration and system complexity.
- configure secure remote access to network information and resources utilizing several different methods.
- implement protective measures and evaluate the adequacy of physical site security relative to risk.
- configure operating system security and evaluate its effectiveness.
- compare and contrast different intrusion detection procedures, software programs, and methodologies.
- analyze a given scenario and select appropriate tools and techniques to discover security threats and vulnerabilities, and then select appropriate tools and techniques to mitigate and deter.
- analyze a given a scenario and select the appropriate authentication, authorization, or access control.
- install and configure security controls when performing account management, based on best practices.
- explain general cryptography concepts.
- utilize standard PKI, certificate management, and associated components, given a specific scenario.

### **ORIENTATION**

Orientation is online in CANVAS

### **ACCOMMODATIONS:**

Students who may need an academic accommodation based on the impact of a disability and who require instructional, curricular, or test accommodations are responsible for making such needs known to the instructor as early as possible. Every possible effort will be made to accommodate students in a timely and confidential manner. Individuals who request accommodations must be registered with the [Office of Disabled Students Programs and Services](#), which authorizes accommodations for students with disabilities.

Contact the office by email: [instruct@arc.losrios.edu](mailto:instruct@arc.losrios.edu), or by phone, on Monday, Thursday, or Friday between 8 a.m. and 5 p.m. or on Tuesday and Wednesday during the extended hours between 8 a.m. and 7 p.m.

### **ATTENDANCE POLICY:**

One week with no communication from you either by contacting me, posting to discussions, or turning in assignments constitutes and/or attendance and you can be dropped.

### **COMMUNICATION**

This is an on-line course, so communication occurs through posted news items, discussions, participation on the course website, and through e-mail.

**E-mail and discussion board etiquette** – E-mails and discussion posts should be written in a professional manner. Please use college-level writing skills and a professional tone. E-mails that are poorly written, abbreviated as text messages, or have an unprofessional tone may receive a response from me asking that the e-mail be rewritten and sent a second time. This will delay the response to your e-mail. E-mail and discussion posts are most effective for short communications. If you have questions that require more time, please visit or call the instructor during office hours.

E-mail subject line—I often receive several hundred e-mails per day. To improve response time I have set e-mail filters that prioritize e-mails. When sending an e-mail, please include the course title and your name the subject line. For example:

“CISN 119, Stacy Billings, Question about Chapter 5”

It is my intent to respond to all properly addressed e-mails within one business day. E-mails that do not include a full subject line may experience response delays or may be automatically filtered as “spam” and deleted without a reply.

**Discussion Board Posting** – Online courses lack the interaction that occurs in face-to-face classes. Discussion posts serve as a substitute for personal interaction, and are an essential part of the course. There is a discussion board for each chapter or course topic. Postings can be useful to students. Students are required to read all discussion posts and contribute appropriately. The general and chapter discussion boards are appropriate to ask any questions that you might ask in a classroom. All questions and comments that may be of interest to other students should be posted in the appropriate forum. Students are encouraged to help and interact with each other on the forums. The instructor will read all postings within one business day, but depending upon the posting, may wait up to three days before responding to encourage classmates to help or get involved in the discussion. Students that support and help other students with constructive posts will receive extra consideration for the final grade. Posts which are negative, derogatory, or disruptive of the class will be removed from the course website, and a negative adjustment will be made to final class points. Please do not post inquiries or comments about quiz questions until after the quiz has closed.

**WHEN YOU EMAIL THE INSTRUCTOR:**

<b>Here are 5 reasons that you might get in touch with me this semester:</b>	<b>Here are 5 reasons that I might get in touch with you this semester:</b>
1. You are not sure what you should be doing.	1. Send an email to check in on you.
2. You don't understand the learning objectives.	2. Send an email to congratulate you on something well done.
3. You need clarity about a concept or theory.	3. Post an announcement with some advice to improve scores on quizzes or discussions.
4. You want to bring up your score on quizzes.	4. Instructional posts in the class discussions.
5. You want to bring up your discussion scores.	5. Feedback on your written assignments.

## DO'S & DON'TS OF EMAIL ETIQUETTE

Although most people give careful thought to the contents of anything written down on paper, most emails are composed with much less consideration. But since they can be forwarded on so easily to someone else, they could potentially be viewed by many more people than an ordinary letter.

The day-to-day emails often cause the most problems -- the offhand remarks and unguarded comments, thoughtless turns of phrase or careless wording. The formality of email in most businesses can vary between the styles of an interoffice memo down to that of a telephone call. Be careful both when you send email, and when you interpret it. Don't jump down someone's throat if there's a chance you have misinterpreted what they are saying.

One problem with email is *all the information that is missing*. Normally, facial expressions or gestures (in person), or by tone of voice (on the telephone) are vital to communication accuracy. Irony or humor can be difficult to express in a mail message - many people get round this by using *smileys* such as :) to indicate humor - but not everyone knows what these mean, so they are not foolproof. The following tips should help you avoid some of the pitfalls:

### DOs:

**Do always** identify yourself in the body of the email - either by including a brief signature or at least your name to help the recipient understand who it is from.

**Do** try to think about the message content before you send it out. Reread, spellcheck, and proofread.

**Do** ensure that you have a relevant "Subject" line.

**Do** make sure that the content is relevant to the recipients. Nobody likes to receive junk email.

**Do** be polite. Terseness can be misinterpreted.

**Do** try to use humor and irony sparingly. You can use smileys such as :) or :( to indicate facial expressions, but make sure that the recipient understands what they mean.

**Do** try to quote from the original message where relevant. You can break the quoted message down into paragraphs and comment on them individually to make it clearer.

**Do** trim any quoted message down as much as possible.

**Do** be patient, especially with inexperienced email users. Give people the benefit of the doubt - just because you are familiar with email etiquette, it doesn't mean that they are.

**Do** be careful when replying to mailing list messages, or to messages sent to many recipients. Are you sure you want to reply to the whole list?

**Do** remember to delete anything that isn't needed or is trivial.

**Do** remember to tell people the format of any attachments you send.

### DON'Ts:

**Don't** reply to an email message when angry or upset, as you may regret it later. Once the message has been sent, you will not be able to recover it.

**Don't** copy out an entire, long message just to add a line or two of text such as "I agree".

**Don't** type in CAPITALS as this is considered to be SHOUTING. This is one of the rudest things you can do.

**Don't** send irrelevant messages, especially to mailing lists or newsgroups.

**Don't** send large attachments without checking with the recipient first.

**Don't** send excessive multiple postings to people who have no interest. This is known as "spamming" and is considered to be ignorant.

**Don't** send chain letters or "make money fast" messages. There are several hoaxes about what to do with viruses - never pass these on without checking with your IT department first.

**Don't** conduct arguments in public.

**Don't** "flame" people by sending them abusive email messages.

**Don't** make personal remarks about third parties. Email messages can come back to haunt you.

**Don't** send unsuitable email or attachments, especially anything of a sexual nature as they may well be found by a third party later.

**Don't** use an overly elaborate signature on your email message. Never, ever, use scanned images in a signature as these tend to be very large.

**Don't** mark things as urgent if they aren't, because then when you really do have an urgent message it may not be treated in the way it deserves.

### **WHAT I EXPECT FROM STUDENTS:**

Just as in a regular face-to-face class, I expect that you will adhere to standards of courtesy, professionalism, and academic honesty.

### **COURTESY:**

I expect that everyone will participate in the class with courtesy and consideration for each other and for the instructor. Your e-mails and web postings should be on the topic at hand, should be appropriate, and should reflect a professional demeanor. Inappropriate behavior includes, but is not limited to, the following: disruptive behavior, profanity or vulgarity, harassment of other students, obstruction of the learning environment, plagiarism, or dishonesty. Students may not knowingly access, alter, damage, delete, destroy, or otherwise use any data, computer, computer system, or computer network in order to harass, disrupt, destroy, or disturb the class online learning environment.

### **ACADEMIC HONESTY:**

It is a violation of college policy to plagiarize, to recycle work, or to cheat or attempt to cheat on exams, homework, or any type of assignment.

You must NOT:

- take others' thoughts or words without appropriate acknowledgment;
- submit work that has been written or revised in part or in whole by another person;
- submit work that you have submitted for another class; or
- Cheat or attempt to cheat on a quiz, exam, or assignment.

It is essential that every student understand the standards of academic honesty and how to avoid dishonesty by proper acknowledgment of intellectual indebtedness. Drawing on the ideas of others as you develop your own is an essential and exciting component of intellectual work. Whenever you use other writers' ideas, however, you must acknowledge your sources. Doing so allows you to distinguish between your ideas and those of others; it directs your readers to relevant sources; and it allows you to give credit where credit is due.

### **PENALTIES FOR ACADEMIC DISHONESTY:**

Any assignment which shows significant evidence of plagiarism will receive no credit.

Work which has been copied from another student will result in both students receiving no credit for that assignment.

Repeated instances of academic dishonesty will result in a failing grade for the class and will be reported to the college for appropriate disciplinary action.

**COURSE DELIVERY METHODS MAY INCLUDE:**

Lectures, Power Point Slides, Web Links, Labs, Videos and class interaction. You must provide your own Computer and Internet connection or use the School Computer lab. I am not responsible for maintaining your Computer and or Internet connection. If a textbook is required, you are required to provide your own text.

**GRADING CRITERIA:**

Note: Test, Quiz and Homework questions are not taken directly from a text or lecture, you are expected to do research on the Internet as needed to complete work.

Tests	200 points		
Labs	140 points		
Homework	140 points		
Project	40 points		
Total	520 points		
90%-100%	468/520	A	
80%-89%	416/520	B	
70%-79%	364/520	C	
60%-69%	312/520	D	
0%-59%	< 312/520	F	

**POLICY ON LATE WORK:**

Half Credit for late work, no make-up exams, no work accepted after class has ended

**COURSE OUTLINE:**

\*Subject to change due to the needs of the class

<b>Week</b>	<b>Meeting Dates</b>	<b>Reading</b>	<b>Tests</b>	<b>Due Dates</b>	<b>Notes</b>
<b>1</b>	3/16-24	Lab 1,2 Chapter 1,2	Homework 1,2	3/24	CANVAS
<b>2</b>	3/25-31	Lab 3,4 Chapter 3,4	Homework 3,4	3/31	Tests  Online
<b>3</b>	4/1-7	Lab 5,6 Chapter 5,6	Homework 5,6	4/7	
<b>4</b>	4/8-14	Labs 7,8 Chapter 7,8	Homework 7,8	4/14 Midterm	
<b>5</b>	4/15-21	Labs 9,10 Chapters 9,10	Homework 9,10	4/21	
<b>6</b>	4/22-28	Labs 11,12 Chapters 11,12	Homework 11,12	4/28	
<b>7</b>	4/29-5/5	"projects"	Homework Projects	5/5	
<b>8</b>	5/6-11	FINAL		5/11 Final	Class Ends