

Course Syllabus

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VALENCIA COLLEGE

Division of Engineering, Computer Programming & Technology

[Department of Cybersecurity & Network Engineering Technology](#)

<https://valenciacollege.edu/academics/departments/engineering/programs/cybersecurity-and-network-engineering-technology/index.php>

West Campus Building 9, Room 140 (407) 582-1902/1903

<http://valenciacollege.edu/west/engineering>

Summer 2024

Course Date: May 6, - July 30, 2024

Course Title: CET2892C-30994 Ethical Hacking

Contact Hour Breakdown: CR 3 Class 3 Lab 1

Prerequisite: CET2830C

Catalog Course Description: This course provides the next step for individuals who want to enhance their Cybersecurity skill set and help meet the growing demand for network security professionals. The curriculum provides an in-depth knowledge of the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices and security appliances to maintain the integrity, confidentiality, and availability of data, services, and devices. The Advanced Cybersecurity course helps prepare students for entry-level security careers opportunities such as Information Security Specialist, Information Assurance Manager, INFOSEC Analyst, and Network Security Administrator. This course is hands-on with an emphasis on practical experience to help students develop specialized security skills, critical thinking and complex problem-solving skills.

Textbook: Halton: Kali Linux: Windows Penetration Testing ISBN 1782168494

PDF: [Kali Linux 2 Windows Penetration Testing.pdf](#)

<https://online.valenciacollege.edu/courses/201748/files/49717630?wrap=1> ↓


https://online.valenciacollege.edu/courses/201748/files/49717630/download?download_frd=1



Downloadable Course Guide:



Required Material:

• Required Material:

- Microsoft TEAMS, this will be our primary tool for communication during the week
- Access to VMWare Workstation through VMware academy
- Access to NDG site to access EH labs ([Link to Our NDG Class](https://portal.netdevgroup.com/learn/wnj239/enroll/) ) (<https://portal.netdevgroup.com/learn/wnj239/enroll/>.) You purchase the NDG subscription at the bookstore for NDG Ethical Hacking v2 and use the above web link to enroll.
- **Minimum Hardware Requirements:** Windows 10 or 11 Pro PC/Laptop with 16 GB RAM; i5 or i7 processor or equivalent AMD;

Please note that no other hardware or operating systems are supported. Any support provided for hardware/software outside of the requirements is done on a best-effort-only basis. You are responsible for your equipment meeting requirements.

Links

- Microsoft Azure for Teaching: <https://signup.azure.com/studentverification?offerType=3>
(<https://signup.azure.com/studentverification?offerType=3>)
- VMWare Software (BrightSpace):
 - [VMWare license key page](https://itacademy.vmware.com/catalog?pagename=Software-Licenses-Repository) (<https://itacademy.vmware.com/catalog?pagename=Software-Licenses-Repository>).
 - [Download VMWare Workstation for Windows](https://www.vmware.com/go/getworkstation-win) (<https://www.vmware.com/go/getworkstation-win>)
 - [Download VMWare Workstation for Linux](https://www.vmware.com/go/getworkstation-linux) (<https://www.vmware.com/go/getworkstation-linux>)
 - [Download VMWare Player 17](https://www.vmware.com/products/workstation-player/workstation-player-evaluation.html)  (<https://www.vmware.com/products/workstation-player/workstation-player-evaluation.html>)
- Join NDG class: [NDG Sum24](https://portal.netdevgroup.com/learn/wnj239/enroll/)  (<https://portal.netdevgroup.com/learn/wnj239/enroll/>)

Course Learning Outcomes

On course completion, students will be able to:

- Investigate Footprinting and Open source intelligence techniques.
- Evaluate cryptography and steganography
- Implement vulnerability assessment
- Configure tools to conduct scanning and target discovery
- Documentation
- Apply tools and concepts to a pentest

Additional Support

Location: Microsoft Teams Virtual Lab

Follow this link: <https://valenciacollege.edu/academics/departments/engineering/lab-hours.php>
(<https://valenciacollege.edu/academics/departments/engineering/lab-hours.php>)

Choose Cybersecurity and Network Engineering Technology Lab to join this TEAM, on this site, you will see the hours of operation.

Tutoring:

Here is the directions for tutoring: [Net_Tutor.pdf](#)

(<https://online.valenciacollege.edu/courses/200146/files/49720978?wrap=1>)_ ↓

(https://online.valenciacollege.edu/courses/200146/files/49720978/download?download_frd=1)

Hours: Monday to Thursday: 1 pm to 6 pm EST (subject to change due to availability - we will update you if they do)

Class Time and Location

Optional Zoom session: Monday from 6 pm to 8 pm

Zoom Link: [Monday's Zoom Link](https://valenciacollege.zoom.us/j/96565480241?pwd=Yy9zRHpueEgyTGpUS0RmQzgyMXgzUT09) ↗ (<https://valenciacollege.zoom.us/j/96565480241?pwd=Yy9zRHpueEgyTGpUS0RmQzgyMXgzUT09>)_

TEAMS Link: [SUM Ethical Hacking Microsoft Teams](https://teams.microsoft.com/l/team/19%3A20TICvsxr0vuXU-Yt3IKwGnCfaPVo1rKNVZMbPENM01%40thread.tacv2/conversations?groupId=ba3c75d6-1c0c-4358-935c-cfcd010c0801&tenantId=0e886695-3d17-41a8-8544-135b0a92a47c) ↗

(<https://teams.microsoft.com/l/team/19%3A20TICvsxr0vuXU-Yt3IKwGnCfaPVo1rKNVZMbPENM01%40thread.tacv2/conversations?groupId=ba3c75d6-1c0c-4358-935c-cfcd010c0801&tenantId=0e886695-3d17-41a8-8544-135b0a92a47c>)

Professor Information

- Instructor: J Chisholm (Doc C)
- Phone: 407/582-1614

- Office: 11-252

Engagement Hours		
Day	Location	Time
Monday	TEAMs	2:00 pm to 4:00 pm
Tuesday	TEAMs	11:00 am to 1:00 pm
Wednesday	TEAMs	3:00 pm to 5:00 pm
Thursday	RM252	3:00 pm to 7:00 pm
Friday	TEAMs	1:00 pm to 3:00 pm
Teaching Schedule		
Day	Class	Time
Monday	CET2894C	1:30 pm to 2:15 pm
Monday	CET2792C	4:00 pm to 5:30 pm
Monday	CET2892C	6:00pm to 8:00 pm

Contact me via TEAMs Chat or video, Canvas.

Microsoft TEAMs is required and will be used for all communication for this class. Please use this link to get in contact with me via TEAMs directly



[Chat with me on TEAMs](#)

<https://teams.microsoft.com/chat/0/0?users=jchisholm2@valenciacollege.edu>

Faculty Site: [Dr. Chisholm's Faculty Front Door \(http://frontdoor.valenciacollege.edu/faculty.cfm?uid=jchisholm2&CFID=20488328&CFTOKEN=6a44c07beed5094c-106C15A5-B338-7158-BFBD3FBC221C1FDB\)](http://frontdoor.valenciacollege.edu/faculty.cfm?uid=jchisholm2&CFID=20488328&CFTOKEN=6a44c07beed5094c-106C15A5-B338-7158-BFBD3FBC221C1FDB)

Valencia College Core Competencies

“The faculty of Valencia College has identified four core competencies that define the learning outcomes for a successful Valencia graduate. These competencies are at the heart of the Valencia experience and provide the context for learning and assessment at Valencia College. You will be given opportunities to develop and practice these competencies in this class. The four competencies are:

1. **Think-** think clearly, and creatively, analyze, synthesize, integrate and evaluate in the many domains of human inquiry
2. **Value-** make reasoned judgments and responsible commitments
3. **Communicate-** communicate with different audiences using varied means
4. **Act-** act purposefully, effectively, and responsibly.”

Expected Student Conduct

Valencia Community College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia

Community College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class. Violation of any classroom or Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook

Learning Support Statement

Learning Support Services provides students with academic support through distance tutoring, face to face tutoring at the campuses, writing consultations, library services, and resources. Tutoring is offered in most academic disciplines including math, science, foreign languages, English for academic purposes (EAP), computer programming and writing assistance for any course. Assistance with library research can be accessed online through Atlas or the tutoring LibGuide. For more information on how to access tutoring and library research assistance, please visit the college-wide Learning Support Services LibGuide at: <https://libguides.valenciacollege.edu/distancetutoring> [↗](#)
(<https://libguides.valenciacollege.edu/distancetutoring>)

Please Note

Brainfuse is our new 24/7 online tutoring and learning hub, which is available to all of Valencia's students. This service is best used as a back-up to Valencia's Distance Tutoring service, not as a replacement. Brainfuse is accessible through Canvas or by visiting <https://valenciacollege.edu/students/learning-support/>
(<https://valenciacollege.edu/students/learning-support/>)

Students with Disabilities

Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities.

East Campus Bldg. 5-216

Ph: 407-582-2229 Fax: 407-582-8908 TTY: 407-582-1222

West Campus SSB, Rm. 102

Ph: 407-582-1523 Fax: 407-582-1326 TTY: 407-582-1222

Osceola Campus Bldg. 1-140A

Ph: 407-582-4167 Fax: 407-582-4804 TTY: 407-582-1222

Lab Procedures

All assigned labs are due by Saturday at 7 pm each week. All assignment links will lock after the due date, and late work will not be allowed.

Quality Expectations, Late Work, Missed Deadlines:

All students in this course are future networking or security professionals and candidates for an Associate in Science degree in Cybersecurity & Network Engineering Technology. You might be the best networking technologist on the planet, but all I know about you is the quality of your work in our class. Your work directly reflects your professional qualities.

I understand that occasionally, our real lives overtake our school life, so there is leeway for one late assignment. I will accept a one-time-only late assignment. The late assignment starts with 1/2 credit. Then as I grade it, you might lose more points if the quality is poor. After the first late assignment, the next one will NOT be accepted for grading. Failure to upload an assignment correctly is the same as being late. (This excludes Midterm and Finals since they are exams and cannot be submitted late)

There is no extra credit anticipated in this course.

The first two weeks will be used to create your home lab environment, and you will be responsible for following along as we set up all of the machines. Work done during the class period is due at the end of class by 2:30 pm; if you miss a class, you will not be allowed to make this work up.

- Students are responsible for using the appropriate link in Canvas to submit homework. Emailed assignments to the instructor will not be graded or
- All screenshots must contain a time stamp from your virtual machine. The absence of timestamp with result in a zero for the lab.
- All Labs are individual assignments unless explicitly told differently at the beginning of the lab. Any student caught copying another student's answers will be given a '0' for the
- Failure to complete the final project will give you an automatic F in the course, and you must pass the project with a 70% or better passing score.
- You must satisfactorily complete all the course requirements in order to receive a passing grade, including a passing grade on the final project.

Grading System

A	90- 100
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B	80-89
C	70-79
D	60-69

NDG Labs -----	15%
Assignments -----	15%
Midterm-----	20%
Final Project-----	35%
Breakout Room-----	15%

Important Dates

- [2022/2023 Academic Calendar \(https://valenciacollege.edu/academics/calendar/documents/2022-2023-academic-calendar.pdf\)](https://valenciacollege.edu/academics/calendar/documents/2022-2023-academic-calendar.pdf)

	Full Term	H1	TWK	H2
Classes Begin	May 6, 2024	May 6, 2024	June 4, 2024	June 18, 2024
<i>Drop/Refund Deadline by 11:59PM ET</i>	May 13, 2024	May 13, 2024	June 11, 2024	June 25, 2024
No Show Reporting Period	May 15-24, 2024	May 15-24, 2024	June 12-21, 2024	June 26 -July 5, 2024
Graduation Application Deadline	May 31, 2024	May 31, 2024	May 31, 2024	May 31, 2024
<i>Student-Initiated Withdrawal (W Grade) Deadline by 11:59PM ET</i>	June 28, 2024	June 7, 2024	June 12, 2024	July 19, 2024
<i>Faculty-Initiated Withdrawal (W Grade) Deadline 11:59 PM ET</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>
Day/Evening Classes End	July 30, 2024	June 17, 2024	July 30, 2024	July 30, 2024
<i>Final Exams</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>	<i>Last Class Meeting</i>
<i>Term Ends</i>	<i>July 30, 2024</i>	<i>July 30, 2024</i>	<i>July 30, 2024</i>	<i>July 30, 2024</i>
<i>Grades Due (by 9:00 AM ET)</i>	<i>August 1, 2024</i>	<i>August 1, 2024</i>	<i>August 1, 2024</i>	<i>August 1, 2024</i>
<i>College Closed (Credit classes Do Not Meet)</i>	May 27 (Memorial Day) July 4 (Independence Day)			

Classroom Policy on Recording Lectures

Students may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a planned presentation by a college faculty member or instructor, during a scheduled class, delivered for the purpose of transmitting knowledge or information that is reasonably related to the pedagogical objective of the course in which the student is enrolled. Recording class activities other than class lectures, including but not limited to class discussions, student presentations, labs, academic exercises involving student participation, and private conversations, is prohibited. Recordings may not include the image or voice of other students in the class, may not be used as a substitute for class participation and class attendance, and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the College's Student Code of Conduct.

Online Student Assessment of Instruction

As part of our continuing goal to provide the best possible instruction for Valencia Community College students, the student evaluation of instructor form is now available online.

On a completely anonymous basis, all students are invited to complete this online form. To do so, go into Atlas, click on My Courses, then click on the box at the right that says 'Assessment Survey'. You will be able to submit one assessment form per class. After that, the form will no longer be available to you.

Please set aside some time toward the end of the semester to complete the assessment. By doing so, you will assist the instructor in assessing the effectiveness of his/her teaching methods and techniques. Thank you for your feedback.

Withdrawal Deadline and Policy

Withdrawal Deadline and Policy

*Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the established deadline for a particular term will receive a grade of "W." A student is not permitted to withdraw after the withdrawal deadline. **See Important Dates for the Withdrawal Deadline for the part of term of this course.** A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of "W". Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of "F". For a complete policy and procedure overview on Valencia Policy 6Hx28:4-07, please go to: [College Policies \(http://valenciacollege.edu/generalcounsel/\)](http://valenciacollege.edu/generalcounsel/).*

*A student who withdraws from class before the **withdrawal deadline** receives a grade of "W." A faculty member is permitted to withdraw a student from the faculty member's class up to the beginning of the final exam period for violation of the faculty member's attendance policy, as published in the faculty member's syllabus. A student is not permitted to withdraw from this class after the withdrawal deadline; if*

you remain in the class after the withdrawal deadline, you can only receive a grade of A, B, C, D, F, or I. An I grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an I, the work missed must be made up during the following semester, at which time you will get an A, B, C, D, or F. Failure to make up the work during the following semester will result in you getting a grade of F in the course. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of "F."

Students on financial aid should consult an advisor or counselor before withdrawing from a course; there may be financial implications to the student, which he or she must know about to make an informed decision before withdrawing from a course. Students with some scholarships who withdraw or are withdrawn from a class must pay the college for the cost of the class. Other scholarship sponsors may also require repayment.

To maintain financial aid academically, students must meet all of the following requirements:

- Complete 67% of all classes attempted, and
- Maintain a Valencia GPA of 2.0 or higher, and
- Maintain an overall GPA of 2.0 or higher, and
- Complete the degree within the 150% time-frame

Detailed information about maintaining satisfactory academic progress (SAP) can be found at:

[Satisfactory Academic Progress \(https://valenciacollege.edu/finaid/satisfactory-progress.php\)](https://valenciacollege.edu/finaid/satisfactory-progress.php)

For a complete policy and procedure overview on Valencia Policy 4-07, please go to:

[Valencia Policy 4-07 \(https://valenciacollege.edu/about/general-counsel/\)](https://valenciacollege.edu/about/general-counsel/)

Security Statement

We want to reassure you that our security officers are here around the clock to ensure the safety and security of the campus community. It's essential to remain alert and aware of your surroundings, especially during the early morning or evening hours. Remember to call security for an escort if you feel uncomfortable walking alone on campus. White security phones can also be found in many of our buildings; simply pick up the phone, and security will answer.

Finally, any suspicious persons should be reported to West Campus Security at 407-582-1000, 407-582-1030 (after-hours number), or by using the yellow emergency call boxes on light poles in the parking lots and along walkways.

BayCare Behavioral Health Student Assistance Program








Valencia is committed to making sure all our students have a rewarding and successful college experience. For that purpose, Valencia students can get immediate help that may assist them with psychological issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management, as well as relationship problems dealing with school, home, or work. Students have 24-hour unlimited access to **BayCare Behavioral Health's confidential student assistance program** phone counseling services by calling **(800) 878-5470**. Three free, confidential face-to-face counseling sessions are also available to students.














DISCLAIMER:

This syllabus is an agreement between the student and the instructor. By enrolling in and then attending this course, the student agrees to and accepts the terms and conditions of this agreement. It is the responsibility of the student to carefully read this syllabus/agreement in its entirety and to adhere to all policies and procedures within the syllabus. Please retain a copy of this syllabus for your records.






Changes may be made at the discretion of the instructor.

Course Summary:

Date	Details	Due
	 Creating your Kali Machines https://online.valenciacollege.edu/courses/201748/assignments/5656813	due by 7pm
	 Download Files for the Course https://online.valenciacollege.edu/courses/201748/assignments/5656816	due by 7pm
	 Ethical Conduct https://online.valenciacollege.edu/courses/201748/assignments/5656817	due by 7pm
Sat May 11, 2024	 Intall Nessus Open Community https://online.valenciacollege.edu/courses/201748/assignments/5656821	due by 7pm
	 Introduce Yourself https://online.valenciacollege.edu/courses/201748/assignments/5656810	due by 7pm
	 Verify NDG Access https://online.valenciacollege.edu/courses/201748/assignments/5656849	due by 7pm
	 VMWare Access and TEAMs https://online.valenciacollege.edu/courses/201748/assignments/5656848	due by 7pm

Date	Details	Due
Sat May 18, 2024	 CTF Websites	due by 7pm
	https://online.valenciacollege.edu/courses/201748/assignments/5656812	
	 Information Gathering aka	due by 7pm
	Footprinting	
https://online.valenciacollege.edu/courses/201748/assignments/5656820		
 NDG 1	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656823		
 Open Source Intelligence	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656834		
 VM Install - XP and 2003,	due by 7pm	
Metasploitable2 & SRV 2008		
https://online.valenciacollege.edu/courses/201748/assignments/5656847		
 Cryptography	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656814		
 NDG 2	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656825		
 Passive Information Gathering	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656837		
 Scanning for Vulnerabilities	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656844		
Sat Jun 1, 2024	 Exploit Tools Lab	due by 7pm
	https://online.valenciacollege.edu/courses/201748/assignments/5656818	
	 NDG 3	due by 7pm
	https://online.valenciacollege.edu/courses/201748/assignments/5656826	
 PICO & CTF Learn NUM1	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656836		
 Using Metasploit with Kali	due by 7pm	
https://online.valenciacollege.edu/courses/201748/assignments/5656846		

Date	Details	Due
	 Decode and Steganography https://online.valenciacollege.edu/courses/201748/assignments/5700800	due by 11:59pm
	 Password Cracking Practice - In class exercise https://online.valenciacollege.edu/courses/201748/assignments/5656840	due by 2:30pm
Sat Jun 8, 2024	 NDG 4 https://online.valenciacollege.edu/courses/201748/assignments/5656827	due by 7pm
	 Password Cracking HW https://online.valenciacollege.edu/courses/201748/assignments/5656839	due by 7pm
	 Scanning https://online.valenciacollege.edu/courses/201748/assignments/5656843	due by 7pm
Sun Jun 16, 2024	 MIDTERM https://online.valenciacollege.edu/courses/201748/assignments/5656822	due by 7pm
	 Analyzing PCAP files https://online.valenciacollege.edu/courses/201748/assignments/5656811	due by 7pm
Sat Jun 22, 2024	 NDG 5 https://online.valenciacollege.edu/courses/201748/assignments/5656828	due by 7pm
	 PICO & CTF Learn NUM 2 https://online.valenciacollege.edu/courses/201748/assignments/5656835	due by 7pm
	 NDG 6 https://online.valenciacollege.edu/courses/201748/assignments/5656829	due by 7pm
Sat Jun 29, 2024	 NDG 7 https://online.valenciacollege.edu/courses/201748/assignments/5656830	due by 7pm
	 Proof of Final Project Download https://online.valenciacollege.edu/courses/201748/assignments/5656841	due by 7pm
Sun Jun 30, 2024	 Submit a Resume https://online.valenciacollege.edu/courses/201748/assignments/5656845	due by 11:59pm

Date	Details	Due
Sat Jul 6, 2024	 NDG 8 (https://online.valenciacollege.edu/courses/201748/assignments/5656831)	due by 7pm
Sat Jul 13, 2024	 NDG 9 (https://online.valenciacollege.edu/courses/201748/assignments/5656832)	due by 7pm
Mon Jul 29, 2024	 NDG 10 (https://online.valenciacollege.edu/courses/201748/assignments/5656824)	due by 7pm
	 FINAL PROJECT (https://online.valenciacollege.edu/courses/201748/assignments/5656819)	due by 7pm
	 Roll Call Attendance (https://online.valenciacollege.edu/courses/201748/assignments/5656842)	