Course Syllabus

Jump to Today   ✎ Edit

VALENCIACOLLEGE

Division of Engineering, Computer Programming & Technology

Department of Network Engineering Technology

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

http://valenciacollege.edu/west/engineering

Spring 2024

Course Date: January 8 - April 28, 2024

Course Title: CET 2894C-21466 Projects in Cybersecurity

Contact Hour Breakdown: CR 3 Class 3 Lab 1

Prerequisite: CET2892C – Ethical Hacking

Catalog Course Description: In this course, students will be able to apply the skills, methodologies, tools, and practices they learned in previous Cyber Security related courses to inventory a live network, conduct assessments and needs analysis, harden information systems, monitor the network.

Link to Guide:

Textbook: Cengage Unlimited

- Information Security Handbook by Darren Death
  - ISBN 978-1-119-05965-3

Required Material:

- Access to VMWare Workstation Pro
- Microsoft TEAMs
- **Miminum Hardware Requirements:** Windows 10/11 PC/Laptop with at least 16 GB RAM; 6-core i7processor; and a headset.
- Please note: any other hardware or operating systems are not 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.

Resource Links:

- Microsoft Azure: **https://portal.azure.com** **(https://portal.azure.com)**
- VMWare Brightspace: **https://itacademy.vmware.com/** **(https://itacademy.vmware.com/)**

Course Learning Outcomes

On course completion, students will be able to:

- Analyze business needs for various security measures and develop adequate security polices to meet those needs
- Demonstrate competency in performing various penetration testing and information assurance analysis
- Discuss sound project management practices and demonstrate proficiency in utilizing various project management tools
- Apply federal, and state regulations and standards in all aspects of information assurance and network security designs, implementations, testing and documentations

Class Time and Location: Online (Asynchronous)

- Instructor: Dr J. Chisholm (Dr. C~)
- Contact Information: Email: **jchisholm2@mail.valenciacollege.edu (mailto:jchisholm2@mail.valenciacollege.edu)**
- Phone: 407/582-1614
- Office: 11-252
- Engagement hours are conducted using TEAMS and Zoom

Engagement Hours		
Day	Location	Time
Monday	TEAMs	2:00 pm to 4:00 pm
Tuesday	TEAMs	Noon to 3:00 pm
Wednesday	TEAMs	3:00 pm to 5:00pm
Thursday	RM252	1:00 pm to 5:00 pm
Friday	TEAMs	9 am to 11 am
Teaching Schedule		
Day	Class	Time
Monday	CET2894C	11:30 am to 12:30 pm
Monday	CTS1120C	1:00 pm to 2:00 pm
Monday	CET2792C	4:00 pm to 5:30 pm
Thursday	CET4663	5:30 pm to 7:30 pm

Faculty Site: **Dr. C Faculty Front Door (https://frontdoor.valenciacollege.edu/faculty.cfm?uid=jchisholm2)**

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.   Violating 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

Students with disabilities who qualify for academic accommodations must provide a letter 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 (West Campus SSB 102, ext. 1523).

Discussion Questions

There will be a weekly discussion question posted on Canvas. Students will be required to answer the initial question and respond to two classmates. Discussion questions are available for seven (7) days, Monday to Sunday. The initial post and response are due by the end of each week by EOD. (EOD = 11:59pm). There will be no discussion question posted during the weeks of the midterm and final exam. **There will be no make-up for missed discussion questions.**

Lab Procedures

All assigned work is due by **Sunday by 7 pm** each week. Each day an assignment is late will result in a 10% deduction in points.

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 is a direct reflection of you as a professional.

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 could be better. 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)

Do not leave an assignment open to submit late or submit in comments. Canvas generates the time stamp, and if it is even a minute late, it will be counted as a zero.

There is no extra credit anticipated in this course.

- Students are responsible for using the appropriate link in Canvas to submit homework. Emailed assignments to the instructor will not be graded
- 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.
- It is your responsibility to contact the instructor if any extenuating circumstances arise. Communication occurs during or before an event, not after the event has occurred.
- All written assignments will be analyzed using Turnitin for AI and plagiarism. The use of any AI will result in a zero. Similarity, scores for plagiarism should be 25% or less.

Apart from the first week, all assignments will open Sunday nights at 7 pm.

Assignments will not be accepted after Thursday, April 25th.

Grading System

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

Discussions -- 5%

NetLabs --- 15%

Assignments --- 20%

Midterm--- 20%

Final Project--- 25%

National Cyber League--- 25%

Important Dates

- **[2023/2024 Academic Calendar](https://valenciacollege.edu/academics/calendar/)** **(https://valenciacollege.edu/academics/calendar/)**

Disclaimer: Any Changes in the policy and/or schedule of this syllabus may be made at any time during the semester at the discretion of the instructor.

IMPORTANT NOTE

****Three absences will result in being withdrawn from the class. For the online classes, Submittal of labs each week will also constitute attendance for the class -- logging into Canvas does not count as attendance, you must complete an assessment or assignment. If you fail to submit work, you will be marked as absent. *** ****

Classroom Conduct Rules and Comments

- **Disruptive Behavior**: Any student engaging in disruptive behavior will be advised on the first offense and will be dropped from the course on the second offense. Disruptive behavior includes but is not limited to talking during lectures, phone use during class, or any behavior that needs addressing.
- Audio and/or video taping of class is not allowed without the instructor's permission
- More than three absences could result in a grade F or Withdrawal from the class.

Quizzes and Exams

- **Cheating is prohibited**. For any student caught cheating, the instructor has the right to withdraw the student from the class and recommend expulsion from the program.
- *Each student is required to follow Valencia's policy regarding academic honesty. All work submitted by students is expected to be the result of the student's individual thoughts, research, and self-expression unless the assignment specifically states 'group project.'"*

Labs and Assignments

- All Assigned homework is due by Sunday 7 pm and should be submitted to the proper link in Canvas. Paper copies will not be accepted.
- 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 assignment.

Miscellaneous Rules

- It is the student's responsibility to withdraw from the course. Any withdrawal after the withdrawal deadline could result in WF.
- No make-up labs, Quizzes, Homework, or exams are permitted unless prior arrangement with the instructor has been made.
- If the student is absent or has missed any part of the class, then it is the student's responsibility to obtain the missed information from the instructor or other students.
- You must satisfactorily complete all the course requirements to receive a passing grade including.

- Cheating is prohibited. For any student caught cheating, the instructor has the right to withdraw the student from the class and recommend expulsion from the program.

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 is assessing the effectiveness of his/her teaching methods and techniques. Thank you for your feedback.

Withdrawal Deadline and Policy

*A student who withdraws from class before the **withdrawal deadline of Jan 25th will** receive 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 degree within the 150% timeframe

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

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

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

Valencia's Policy 4-07 (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 important to remain alert and aware of your surroundings, especially during the early morning or evening hours. Remember that you can always 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, report any suspicious persons to West Campus Security at 407-582-1000, 407-582-1030 (after-hours number) or by using the yellow emergency call boxes located on light poles in the parking lots and along walkways.

Baycare Behavioral Health's Student Assistance Program

Valencia is committed to making sure all our students have a rewarding and successful college experience. To 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 the **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.*

Course Summary:

Date	Details	Due
Sun Jan 14, 2024	📝 **CTF Websites (https://online.valenciacollege.edu/courses/193968/assignments/5328307)**	due by 7pm
	📝 **Network Design with Visio (https://online.valenciacollege.edu/courses/193968/assignments/5328318)**	due by 7pm
	📝 **Product Review (https://online.valenciacollege.edu/courses/193968/assignments/5328322)**	due by 7pm
	📝 **Verify Accounts (https://online.valenciacollege.edu/courses/193968/assignments/5328327)**	due by 7pm
	🗨 **Week 1 Discussion - CVE**	due by 7pm

Date	Details	Due
	[(https://online.valenciacollege.edu/courses/193968/assignments/5328283)](https://online.valenciacollege.edu/courses/193968/assignments/5328283)	
	💬 **Week 1 Discussion: Introductions** [(https://online.valenciacollege.edu/courses/193968/assignments/5328281)](https://online.valenciacollege.edu/courses/193968/assignments/5328281)	due by 7pm
Sun Jan 21, 2024	📝 **AD DS Design** [(https://online.valenciacollege.edu/courses/193968/assignments/5328302)](https://online.valenciacollege.edu/courses/193968/assignments/5328302)	due by 7pm
	📝 **Mind Mapping** [(https://online.valenciacollege.edu/courses/193968/assignments/5328315)](https://online.valenciacollege.edu/courses/193968/assignments/5328315)	due by 7pm
	💬 **Week 2 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328284)](https://online.valenciacollege.edu/courses/193968/assignments/5328284)	due by 7pm
Wed Jan 24, 2024	📝 **Defense In Depth** [(https://online.valenciacollege.edu/courses/193968/assignments/5328310)](https://online.valenciacollege.edu/courses/193968/assignments/5328310)	due by 7pm
Sun Jan 28, 2024	📝 **Biometrics** [(https://online.valenciacollege.edu/courses/193968/assignments/5328303)](https://online.valenciacollege.edu/courses/193968/assignments/5328303)	due by 7pm
	📝 **Build ADDS Server** [(https://online.valenciacollege.edu/courses/193968/assignments/5328306)](https://online.valenciacollege.edu/courses/193968/assignments/5328306)	due by 7pm
	💬 **Week 3 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328285)](https://online.valenciacollege.edu/courses/193968/assignments/5328285)	due by 7pm
Sun Feb 4, 2024	📝 **File Server** [(https://online.valenciacollege.edu/courses/193968/assignments/5328312)](https://online.valenciacollege.edu/courses/193968/assignments/5328312)	due by 7pm
	📝 **Pharming Attacks** [(https://online.valenciacollege.edu/courses/193968/assignments/5328320)](https://online.valenciacollege.edu/courses/193968/assignments/5328320)	due by 7pm
	📝 **PicoCTF GYM** [(https://online.valenciacollege.edu/courses/193968/assignments/5328308)](https://online.valenciacollege.edu/courses/193968/assignments/5328308)	due by 7pm
	💬 **Week 4 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328287)](https://online.valenciacollege.edu/courses/193968/assignments/5328287)	due by 7pm
Sun Feb 11, 2024	📝 **Group Policy** [(https://online.valenciacollege.edu/courses/193968/assignments/5328314)](https://online.valenciacollege.edu/courses/193968/assignments/5328314)	due by 7pm

Date	Details	Due
	📝 **Mystery Inc** [(https://online.valenciacollege.edu/courses/193968/assignments/5328317)](https://online.valenciacollege.edu/courses/193968/assignments/5328317)	due by 7pm
	📝 **PicoCTF GYM #2** [(https://online.valenciacollege.edu/courses/193968/assignments/5328300)](https://online.valenciacollege.edu/courses/193968/assignments/5328300)	due by 7pm
	📝 **Sign up for PICOCTF24** [(https://online.valenciacollege.edu/courses/193968/assignments/5328326)](https://online.valenciacollege.edu/courses/193968/assignments/5328326)	due by 7pm
	💬 **Week 5 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328288)](https://online.valenciacollege.edu/courses/193968/assignments/5328288)	due by 7pm
Sun Feb 18, 2024	📝 **Build Kali Linux** [(https://online.valenciacollege.edu/courses/193968/assignments/5459977)](https://online.valenciacollege.edu/courses/193968/assignments/5459977)	due by 7pm
	📝 **PicoCTF GYM #3** [(https://online.valenciacollege.edu/courses/193968/assignments/5328321)](https://online.valenciacollege.edu/courses/193968/assignments/5328321)	due by 7pm
	📝 **Secondary Domain Controller** [(https://online.valenciacollege.edu/courses/193968/assignments/5328324)](https://online.valenciacollege.edu/courses/193968/assignments/5328324)	due by 7pm
	💬 **Week 6 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328290)](https://online.valenciacollege.edu/courses/193968/assignments/5328290)	due by 7pm
Sun Feb 25, 2024	📝 **Video Midterm** [(https://online.valenciacollege.edu/courses/193968/assignments/5328328)](https://online.valenciacollege.edu/courses/193968/assignments/5328328)	due by 7pm
Sun Mar 3, 2024	📝 **247ctf Num 2** [(https://online.valenciacollege.edu/courses/193968/assignments/5328301)](https://online.valenciacollege.edu/courses/193968/assignments/5328301)	due by 7pm
	📝 **Python #1** [(https://online.valenciacollege.edu/courses/193968/assignments/5459821)](https://online.valenciacollege.edu/courses/193968/assignments/5459821)	due by 7pm
	📝 **Vulnerability scan** [(https://online.valenciacollege.edu/courses/193968/assignments/5328329)](https://online.valenciacollege.edu/courses/193968/assignments/5328329)	due by 7pm
	💬 **Week 8 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328291)](https://online.valenciacollege.edu/courses/193968/assignments/5328291)	due by 7pm
Sun Mar 10, 2024	📝 **NICE Challenge 1** [(https://online.valenciacollege.edu/courses/193968/assignments/5459677)](https://online.valenciacollege.edu/courses/193968/assignments/5459677)	due by 7pm

Date	Details	Due
	📝 **Python #2** [(https://online.valenciacollege.edu/courses/193968/assignments/5459822)](https://online.valenciacollege.edu/courses/193968/assignments/5459822)	due by 7pm
	💬 **Week 9Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328294)](https://online.valenciacollege.edu/courses/193968/assignments/5328294)	due by 7pm
Sun Mar 17, 2024	📝 **Blue Team Defense** [(https://online.valenciacollege.edu/courses/193968/assignments/5328305)](https://online.valenciacollege.edu/courses/193968/assignments/5328305)	due by 7pm
	📝 **Python #3** [(https://online.valenciacollege.edu/courses/193968/assignments/5459823)](https://online.valenciacollege.edu/courses/193968/assignments/5459823)	due by 7pm
Sun Mar 24, 2024	💬 **Week 11 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328295)](https://online.valenciacollege.edu/courses/193968/assignments/5328295)	due by 7pm
Sat Mar 30, 2024	📝 **PICO Competition - TEAM or Individual** [(https://online.valenciacollege.edu/courses/193968/assignments/5328319)](https://online.valenciacollege.edu/courses/193968/assignments/5328319)	due by 7pm
	📝 **Download Final Machine** [(https://online.valenciacollege.edu/courses/193968/assignments/5328311)](https://online.valenciacollege.edu/courses/193968/assignments/5328311)	due by 7pm
Sun Mar 31, 2024	📝 **Python #4** [(https://online.valenciacollege.edu/courses/193968/assignments/5459824)](https://online.valenciacollege.edu/courses/193968/assignments/5459824)	due by 7pm
	💬 **Week 12 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328296)](https://online.valenciacollege.edu/courses/193968/assignments/5328296)	due by 7pm
	📝 **NICE Challenge 2** [(https://online.valenciacollege.edu/courses/193968/assignments/5460614)](https://online.valenciacollege.edu/courses/193968/assignments/5460614)	due by 7pm
Sun Apr 7, 2024	💬 **Week 13 Discussion** [(https://online.valenciacollege.edu/courses/193968/assignments/5328297)](https://online.valenciacollege.edu/courses/193968/assignments/5328297)	due by 7pm
Sun Apr 14, 2024	📝 **Server Hardening** [(https://online.valenciacollege.edu/courses/193968/assignments/5460942)](https://online.valenciacollege.edu/courses/193968/assignments/5460942)	due by 7pm
Thu Apr 25, 2024	📝 **Final Mission** [(https://online.valenciacollege.edu/courses/193968/assignments/5328313)](https://online.valenciacollege.edu/courses/193968/assignments/5328313)	due by 7pm