CCAC @ WA

Ethical Hacking: CIT-282 & CIT-285
Syllabus | FALL 2021 & SPRING 2022

instructor:	**Eric C. Darsow** CCAC North CIT Department Faculty Instructor **Dan Marshall** West Allegheny HS Instructor
office Hours:	**Periods 5,6, & 8** by appointment (get a pass)
semester:	**Fall 2021** **Spring 2022**
instructor Contact methods:	**In-person preferred, followed by phone calls: 412.894.3020,** then email: edarsow@westasd.org dmarshall@westasd.org
CIT Dept chair	**Professor Rebecca Elinich** relinich@ccac.edu
CIT Dean	**Conroy, Sara J.** sconroy@ccac.edu
course Credits	**CIT-282: 3.0 credits** **CIT-285: 3.0 credits**
prerequisites	**For CIT-282: CIT-182** **For CIT-285: Instructor approval**

I: Course Descriptions

CIT-282: Mobile Device and Cloud Security: This course provides students knowledge and skills involved with managing mobile device security and cloud security. Topics include security vulnerabilities in mobile phones and tablets, mobile device security models, system data analysis tools, security vulnerabilities in cloud computing and safeguards in cloud environments.

CIT-285: Cybersecurity Capstone- This course, which must be taken in the final semester, is the exit course for the program. With the instructor's guidance and approval, each student will work on and complete a portfolio-type project on a specific cybersecurity problem using the learning from previous courses in the program and additional research.

II: Learning Outcomes

CIT-282: Upon successful completion of the course, the student will:

1. Appraise security vulnerabilities in mobile phones and tablets.

2. Contrast security threats and attacks against mobile devices.

3. Evaluate different mobile device security models.

4. Perform mobile device system and data analysis.

5. Examine solutions to mitigate lost mobile devices.

6. Appraise security limitations of the virtualization technology.

7. Examine security vulnerabilities in cloud computing.

8. Evaluate security policies, agreements and safeguards in cloud environments.

CIT-285: Upon successful completion of the course, the student will:

1. Evaluate cybersecurity vulnerabilities, threats and attacks.

2. Perform risk analysis and assessment for cybersecurity incidents.

3. Create cybersecurity policies and procedures.

4. Select effective security solutions for intrusion detection and prevention.

5. Handle cybersecurity incidents appropriately.

6. Identify safeguards and controls to mitigate cybersecurity risks.

7. Create technical reports on cybersecurity incidents.

8. Conduct basic research in the Cybersecurity field.

9. Demonstrate familiarity with cybersecurity career paths and requirements.

10. Demonstrate basic skills in managing cybersecurity projects.

III: The nitty gritty

textbook & materials	**Course website:** Master course website with session-specific content, submission portals, and assignment details: Canvas & https://technologyrediscovery.net
letter Grades	A point-based system will be used to assign letter grades according to the district staff handbook. Each 9-weeks grade will be based on two major inputs: 1) 60%: Quality and effort on weekly work bundles which consist of a) Skills practice artifacts and b) Culminating questions and/or tasks c) Daily class engagement & peer help 2) 40%: Quality and effort on quarter projects which require synthesis of the core concepts of the quarter These two values will be mathematically combined to assign a letter grade based on the official West Allegheny SD scale: 90-100% = A ; 80-89.99% = B 70-79.99% = C ; 60-69.99% = D <= 59.99% = F In the spirit of this college-level course ***NO EXTRA CREDIT*** opportunities exist; instead, a lenient makeup work policy is provided to encourage a sole focus on course content.
due dates	Our weekly work cycle **begins on Monday** and proceeds **through Friday.** Completed weekly cycle documents and artifacts should be placed in your student folder for review Monday and Tuesday evenings by your instructor. You'll get feedback before submitting your next cycle's work. For at least the first two 9-weeks, Eric

	Darsow will be present in class Monday, Tuesday, and Wednesday for **primary instruction**. Thursdays and Fridays provide a chance for **independent practice** of core skills and thoughtful completion of: a) Weekly work culminating questions b) Skills practice with online Canned Test Out materials available via a browser.
atten-dance & tardiness	*Attend class per West Allegheny High School's official attendance policy.* Instructors will not provide remediation for content that students missed due to unexcused absences unless extenuating circumstances dictate a more lenient approach.
tests:	**The only high-stakes test will be the Test Out certification test taking place in the 4th 9-weeks period.** Low-stakes, mini assessments and projects will constitute the bulk of your submitted work
technology	All necessary computers are supplied by West Allegheny HS in our lab classroom
Academic Honesty	**Provide written credit to all relevant authors** of all code, writing, and project work for this course, including yourself and folks who help you (but who may not be published authors). Include direct URLs of websites consulted. **Honor the copyrights** associated with all content used in this course. **Consequences:** Students suspected of academic dishonesty will be asked to produce documentation to support any attributions (or, non-attributions). The West Allegheny School District's academic honesty policy applies in this course.

IV: Official CCAC notices

my.ccac.edu	Students are reminded that they can access their course information and CCAC email account, the CCAC Academic Calendar (including add/drop/withdrawal deadlines), the Student Handbook, the College's Incident Report form, and many other College services through the MyCCAC portal: https://my.ccac.edu
student handbook	All students are expected to read and comply with the policies and regulations set forth in the CCAC Student Handbook, including without limitation the College's policies regarding academic and behavioral conduct, the procedures for requesting an accommodation based upon a disability, pregnancy or pregnancy related condition, or a religious observance, and for reporting unlawful discrimination and harassment. The Student Handbook is available to view

	and download along with the full text of the College's *Policy Manual, Administrative Regulations Manual*, and the Civil Rights Complaint Procedure: https://www.ccac.edu/academic-rules-and-regulations/rules-and-regulations.php https://www.ccac.edu/president/policies-and-regulations.php
diversity	Title IX of the Education Amendments 1972 (20 U.S.C. 1681 et seq.) and its implementing regulations, 34 C.F.R. Part 106, prohibit discrimination on the basis of sex in education programs or activities operated by recipients of Federal financial assistance. It is the landmark legislation that bans gender based discrimination in schools and colleges. *"No person in the U.S. shall, on the basis of sex be excluded from participation in, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal aid."* https://www.ccac.edu/diversity/title-IX.php https://www.ccac.edu/diversity/notices.php
disability	Information concerning the process and documentation required to request a disability-related accommodation can be obtained by contacting the campus' Office of Supportive Services for Students with Disabilities (OSSSD) or by visiting the OSSSD information page https://www.ccac.edu/supportive-services/suppotive.php

V: Content licensing and sharing

licensing	All non-computer code content on technologyrediscovery.net (course content, images, media) is licensed under the Creative Commons Share-Alike license (CC BY-SA 4.0); no attribution required. https://creativecommons.org/licenses/by-sa/4.0/ Computer code is licensed by file; most course code is copylefted under the GNU Public License