# CCAC @ WA

# Networking: CIT-120 & CIT-250
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-120: 3.0 credits** **CIT-250: 3.0 credits** |
| prerequisites | **CIT-115** |

## I: Course Descriptions

**CIT-120:** This course introduces students to the configuration, management and troubleshooting of wired and wireless network devices. Students learn about emerging technologies with respect to mobile, cloud and virtualization technologies. Topics include networking concepts, infrastructure, network operations, security and troubleshooting. Course objectives are consistent with many of those required for CompTIA Network+ certification.

**CIT-250:** This course focuses on the skills required for onsite support and maintenance of Cisco routers, switches and operating environments. Topics include identifying Cisco router and switch models, accessories, cabling and interfaces; understanding the Cisco IOS software operating modes and identify commonly found software; and using the Cisco Command Line Interface (CLI) to connect and service products. Course objectives are consistent with many of the outcomes specified for Cisco Certified Technician (CCT) Routing and Switching certification.

## II: Learning Outcomes

**CIT-120:** The following content is extracted directly from the CCAC master course syllabus for CIT-120:

Upon successful completion of the course, the student will:

1. Explain devices, applications, protocols and services at their appropriate OSI layers.

2. Configure appropriate IP addressing components.

3. Compare the characteristics of network topologies, types

and technologies.

4. Implement appropriate wireless technologies and configurations.

5. Determine the appropriate placement of networking devices on a network.

6. Summarize outputs from common scanning, monitoring and patching processes.

7. Identify network policies and best practices.

8. Summarize common networking attacks.

9. Troubleshoot common network service issues.

**CIT-250:** Upon successful completion of the course, the student will:

1. Describe commonly used Cisco equipment networking components.

2. Utilize the basic Cisco IOS software commands.

3. Use the Windows command prompt and terminal emulation.

4. Configure Cisco equipment from an Ethernet port on a laptop.

5. Verify operation status of a device interface.

6. Configure TFTP and FTP servers.

7. Manage configurations via the TCP/IP network.

8. Correct common network problems at Layers 1 and 2 of the OSI model.

## 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 date | 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.<br><br>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:<br><br>a) Weekly work culminating questions<br><br>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.<br><br>**Honor the copyrights** associated with all content used in this course.<br><br>**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. |

| | |
|---|---|
| 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.<br><br>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:<br><br>https://www.ccac.edu/academic-rules-and-regulations/rules-and-regulations.php<br><br>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.<br><br>*"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."*<br><br>https://www.ccac.edu/diversity/title-IX.php<br><br>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<br><br>https://www.ccac.edu/supportive-services/suppotive.php |

| | |
|---|---|
| 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.<br><br>https://creativecommons.org/licenses/by-sa/4.0/<br><br>Computer code is licensed by file; most course code is copylefted under the GNU Public License |
| contribute! | You are invited to anonymously contribute your work products in this course to the freely reusable *creative commons* educational material ecosystem made possible by copy left licenses. Any work contributed to this course will fall under this site-wide license scheme. |