Intermediate Networking, CNVT-1820-001; Fall 2021 – Warwick Campus

Instructor	Tony Rashid		
Telephone	(401) 825-1140		
E-mail	tonyrashid@ccri.edu	Webpage	http://faculty.ccri.edu/tonyrashid/
Office Hours	Tuesday, Wednesday, Thursday 4:00 - 5:00 P.M – Friday: 5:00 – 6:00 P.M, or by appointment.		
Section 003	Classroom 2054 – Meets on Wednesday 12 P.M - 3:50 P.M Semester starts September 1 – Ends December 15.		
Credit Hours	3 Credit Hours, 2 Lecture hours and 2 Laboratory hours per week (15 weeks)		

Online Instructional Material

Cisco Academy Curriculum and Assessment Web Site	https://www.netacad.com

Grading Policies

Skills:

Labs	15%
Packet Tracer Labs	10%
Case Study and Research	15%
Practical Final	30%

Academic:

Chapter Exams	10%
Final	20%

Textbook: Optional

Switching, Routing, and Wireless Essentials Companion Guide version 7:

Published by Cisco Press
  Print: 9780136729358
  eBook: 9780136729365

NOTE: Student will be given a final grade only when all requirements have been completed.

		93-100%	A	90-92%	A-
87-89%	B+	83-86%	B	80-82%	B-
77-79%	C+	70-76%	C		
67-69%	D+	60-66%	D		
		Below 60%	F		

Course Objectives:

The Intermediate Networking course focuses on switching technologies and router operations that support small-to-medium business networks. It includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

Upon completion of course, students will be able to perform the following tasks:

- Configure VLANs and Inter-VLAN routing, applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.
- Explain how to support available and reliable networks   using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

Examinations:

All exams are to be taken online at the assigned time. Taking all chapter exams, working on Labs and Packet Tracer assignments will prepare you for the final and practical exams. You cannot utilize any materials such as books,

notes, cell phones or the Internet searches when taking these exams. Students are reminded of the college policies relative to working independently and are required to complete all examinations, Packet Tracer labs and other materials assigned. These requirements can be done either independently, or in a group, depending on the instructions given.

Students are expected to **uphold a standard of conduct** relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. Cheating and plagiarism will not be tolerated. Copying answers on tests from somebody else, as well as assignments (entire or partial) is not allowed. Copying from textbooks and/or the Internet is also not allowed. Students who plagiarize and those who allow somebody else to copy your work will receive a grade of 0 (zero) for that exam or assignment.

Attendance/Tardiness:
Your final grade may be dropped by one letter grade as a result of missing the equivalent of two weeks of classes. An excused absence is: personal illness; urgent family issue; work related or a transportation issue. It is the responsibility of the student to notify the instructor of any absence and the reason for it. Documentation for the absence should be provided where applicable. Students whose work schedule may cause occasional tardiness should let the instructor know of the situation as soon as possible and are responsible for ALL missed work.

Other Policies
- The student expected to complete the On-Line lessons outside of class time.
- Late assignments, including labs, will be penalized 10%.
- All assignments must be completed using a word processor.
- Students who miss a chapter exam must take the quiz within two classes of the original quiz date.
- Students are expected to participate as a member of teams when required.
- Students must pass both the Skills based portion in addition to the Academic portion of the curriculum to pass the course.
- Student's final grade can only raise one letter grade above the on-line final exam score based on other class assignments.
- Students are allowed a **maximum** of three (3) re-takes of chapter exams per the semester.
- All re-takes must be completed **prior** to the final exam, in the classroom, **without exception**.

Classroom Etiquette, Netiquette Policy:
- Respect your classmates and their opinions, knowledge and presence.
- Speak articulately and use proper grammar. Be respectful of your classmates and instructor.
- Do not include personal topics, or experiences, unless they are related to the topic being discussed.
- DO NOT use capitals, it is a known policy that by doing so you are representing "anger" which will not be tolerated.
- Agree to disagree. Do not ensue in an argument, but instead understand that there will be differences of opinions, which should be discussed.
- Don't share another's information, this is an invasion of privacy and can be considered a form of plagiarism. Ask for permission before posting anything that is not your own property, idea or work.
- Do not post anything that can be misconstrued as "inappropriate", this could lead to severe actions, and possible dismissal.
- If something is offensive to you, please do not take matters into your own hands, reach out to your instructor for guidance.
- Always reread your information before sending to ensure that it is in an acceptable form of communication.
- Please refer to The Student Handbook Code of Conduct outlines what is misconduct by a student.

Accessibility Policy:
CCRI is committed to creating an environment that meets the needs of all students. CCRI abides by the Americans with Disabilities Ace and Sections 504 and 508 of the Rehabilitation Act of 1973. Any student having a disability can arrange accommodations. Please refer to the Disability Services for Students for assistance.

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Class	Module	Module Group Exam	Subjects	Labs/Packet Tracer Activities/Case Study
Sep 1	1		**Module 1:** Basic Device Configuration	****Lab 1.1.7** Basic Switch Configuration ***PT 1.3.6** Configure SSH ***PT 1.4.7** Configure Router Interfaces ***PT 1.5.10** Verify Directly Connected Networks ***PT 1.6.1** Implement a Small Network ****Lab 1.6.2** Configure Basic Router Settings
Sep 8	2		**Module 2:** Switching Concepts	**Video 2.1.4** MAC Address Tables on Connected Switches **Activity 2.1.8** Switch it
Sep 15	3		**Module 3:** VLANs	***PT 3.1.4** Who Hears the Broadcast **(optional)** ***PT 3.2.8** Investigate a VLAN Implementation ***PT 3.3.12** VLAN Configuration ***PT 3.4.5** Configure Trunks ***PT 3.5.5** Configure DTP **(optional)** ***PT 3.6.1** Implement VLANs and Trunking ****Lab 3.6.2** Implement VLANs and Trunking **Case Study Assigned**
Sep 22	4	**Exam 1** Modules 1, 2, 3, and 4	**Module 4:** Inter-VLAN Routing	***PT 4.2.7** Configure Router-on-a-Stick Inter-VLAN Routing ****Lab 4.2.3** Configuring 802.1Q Trunk-Based Inter-VLAN Routing ***PT 4.3.8** Configure layer 3 Switching and Inter-VLAN Routing ***PT 4.4.8** Troubleshoot Inter-VLAN Routing ***PT 4.5.1** Inter-VLAN Routing Challenge **(optional)** ****Lab 4.5.2** Implementing Inter-VLAN Routing
Module Group Exam - **Exam 1**, Modules: 1, 2, 3, and 4. Available: September 22 – Due: Thursday midnight September 30				
Sep 29	5		**Module 5:** STP Concepts	***PT 5.1.9** Investigate STP Loop Prevention
Oct 6	6	**Exam 2** Modules 5 & 6	**Module 6:** EtherChannel	***PT 6.2.4** Troubleshoot EtherChannel ***PT 6.4.1** Implement EtherChannel ****Lab 6.4.1** Implement EtherChannel
Oct 13	**No Class – Monday's Schedule Followed**			
Module Group Exam - **Exam 2**, Modules: 5 and 6. Available: October 6 – Due: Sunday midnight October 17				
Oct 20	7 & 8		**Module 7:** DHCPv4 **Module 8:** SLACC and DHCPv6	***PT 7.2.10** Configure DHCPv4 ***PT 7.4.1** Implement DHCPv4 ****Lab 7.4.2** Implement DHCPv4 ****Lab 8.5.1** Configure DHCPv6
Oct 27	9	**Exam 3** Modules 7, 8, 9	**Module 9:** FHRP Concepts	***PT 9.3.3** HSRP Configuration Guide ****Lab handout** Configuring HSRP
Module Group Exam - **Exam 3**, Modules: 7, 8, and 9. Available: October 27 – Due: Sunday midnight October 31				
Nov 3	10 & 11		**Module 10:** LAN Security Concepts **Module 11:** Switch security Configuration	**Work on Case Study** ***PT 11.1.10** Implement Port security ***PT 11.6.1** Switch Security Configuration ****Lab 11.6.2** Switch Security Configuration
Nov 10	12, 13	**Exam 4** Modules 10, 11, 12 & 13	**Module 12:** WLAN Concepts **Module 13:** WLAN Configuration	***PT 13.1.10** Configure a Wireless Network ****Lab** 13.1.11 Configure a Wireless Network ***PT 13.2.7** Configure basic WLAN on the WLC

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				PT 13.3.12 Configure a WPA2 Enterprise WLAN on the WLC *PT 13.4.5* Troubleshoot WLAN Issues **(optional)** *PT 13.5.1* WLAN Configuration
Module Group Exam - **Exam 4**, Modules: 10, 11, 12 and 13 – Available November 10 – Due: Sunday midnight November 20.				
Nov 17	14		**Module 14:** Routing Concepts	*PT 14.3.5* Basic Router Configuration Review
Nov 24	15 & 16	**Exam 5** (14-16)	**Module 15:** IP Static Routing **Module 16:** Troubleshoot Static and Default Routes	*PT 15.6.1* Configure IPv4 and IPv6 Static and Default Routes **Lab 15.6.2 Configure IPv4 and IPv6 Static and Default Routes *PT 16.3.1* Troubleshoot Static and Default Routes
Module Group Exam - **Exam 5**, Modules: 14, 15 and 16 – Available: November 24 – Due: Sunday midnight November 28				
Dec 1			Review	Case Study Due
Dec 8	On-Line **Final Exam** – must be present, in class.			
Dec 15	Packet Tracer **Practical Exam** – must be present, in class.			

Schedule, assignments and course content may be subject to change.

*Packet Tracer (*PT) assignments must be uploaded to the NetAcad.com site no later than one week from the assigned date (assigned date found in the first column labeled "Class Meeting" for each associated Module).

**Labs must be turned in at the end of each class, unless otherwise specified.