

5. Identify the equipment, protocols, and encapsulation for an ISDN connection.	quiz/exam
6. Configure routers at both ends of an ISDN connection.	lab, quiz/exam
7. Use frame relay terminology properly – DLCI, LMI, CIR, FECN, BECN.	quiz/exam
8. Configure routers at both ends of a frame relay connection, including subinterfaces.	lab, quiz/exam, hands-on lab exam
9. Establish a baseline for internetwork operation and be able to troubleshoot problems.	project, lab, quiz/exam, hands-on lab exam

RANGE OF SUBJECT MATTER -- MODEL COURSE OUTLINE:

Class	Module	Quiz	Lab
1	1 Scaling IP Addresses --NAT	n/a	NAT configuration
2	1 Scaling IP Addresses -- PAT	n/a	PAT configuration
3	1 Scaling IP addresses -- DHCP	n/a	DHCP configuration
4	2 WAN Technologies	1	WAN Design Project
5	3 PPP	2	PPP w/ PAP
6	3 PPP	n/a	PPP w/ CHAP
7	4 ISDN and DDR	3	ISDN configuration
8	4 ISDN and DDR	n/a	DDR configuration
9	5 Frame Relay	4	Frame Relay config.
10	6 Network Administration	5	SNMP lab
11	CCNA Exam Prep	6	lab review
12	CCNA Exam Prep	n/a	lab review
13	CCNA Exam Prep	practice final	lab review
14	CCNA Exam Prep	course final	lab final
15		CCNA voucher exam	

EVALUATION OF STUDENT PERFORMANCE:

Chapter Tests	25%
Final Exam	50%
Hands-on Exam	25%

The following grade scale applies:

90 – 100%	A grade
80 - 89	B
70 - 79	C
60 - 69	D
below 60	F

Note: Students may retake chapter tests and final exam for Cisco purposes, but the college will use the first attempt for grading purposes. Also, students must receive a 70% grade or higher on the final and the hands-on final to pass the course.

INSTRUCTIONAL MATERIALS:

Required: Cisco Networking Academy Program: CCNA 3 and 4, third edition