Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should <u>not</u> be used to purchase course materials.

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COURSE SYLLABUS

CSIS 331
NETWORKS

COURSE DESCRIPTION

Building on the foundational knowledge of the 330 course, this is a study in corporate data networking. This course primarily focuses on switched networks (wired and wireless) with hands on work on setting up and operating a switched network. Routed networks fundamentals and concepts will be introduced to prepare students for careers in networks operations and the follow-on advanced networks class. (Formerly BMIS 331)

RATIONALE

The CSIS 331 Networks course is the next logical progression in the study of both Information Assurance and Data Networking cognates. The prerequisite CSIS 330 course introduced business data and telecommunications. As the student advances, he/she is now ready for a more in-depth immersion into switched networks and how networks support business objectives. This course sets the stage for the student to advance into the more complex "routed" networks taught in the follow-on CSIS 430 course.

I.   PREREQUISITE

For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II.   REQUIRED RESOURCE PURCHASE

Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III.   ADDITIONAL MATERIALS FOR LEARNING

A.   Computer with basic audio/video output equipment

B.   Internet access (broadband recommended)

C.   Blackboard recommended browsers

D.   Microsoft Office

IV.   MEASURABLE LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

A.   Compare and contrast the propagation effects in wired, wireless, and fiber physical network infrastructure.

B. Describe the network operations at the Data Link (switched network) layer of the OSI seven-layer model.

C. Describe the need for and the process of implementing Virtual LANs with Ethernet switches.

D. Compare and contrast sub-networking and variable length sub-networking (VLSN), and specify how to implement both in a switched network.

E. Compare and contrast switched networks and routed networks.

F. Specify the various 802 transmission standards and access/configure typical switches to operate in a switched network.

G. Discuss the relevance of course material and the use of technology to a biblical worldview.

V. **COURSE REQUIREMENTS AND ASSIGNMENTS**

A. Textbook readings and lecture presentations

B. Course Requirements Checklist

After reading the Course Syllabus and Student Expectations, the student will complete the related checklist found in Module/Week 1.

C. Discussion Board Forums (2)

There are 2 Discussion Board Forums completed in this course. Discussion boards are collaborative learning experiences.

D. Packet Tracer Labs (16)

There are 16 Packet Tracer Labs that will be completed in this course. The student must install and use the Cisco Packet Tracer program provided by Netacad in order to complete the labs.

E. Midterm Exam
The Midterm Exam will cover the Reading & Study material for the assigned modules/weeks.

F. Final Exam

The Final Exam will cover the Reading & Study material for the assigned modules/weeks.

VI. **COURSE GRADING AND POLICIES**

A. Points

Course Requirements Checklist	10
Discussion Board Forums (2 at 30 pts ea)	60
Packet Tracer Labs (16 at 40 pts ea)	640
Midterm Exam (Modules 1–4)	150
Final Exam (Modules 5–8)	150
Total	1010

B.   Scale

   A = 900–1010   B = 800–899   C = 700–799   D = 600–699   F = 0–599

C.   Disability Assistance

   Students with a documented disability may contact Liberty University Online's Office of Disability Academic Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport

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COURSE SCHEDULE

CSIS 331

Resource: Cisco - https://www.netacad.com/

MODULE/WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	Netacad Introduction to Networks: Modules 1–4 2 presentations	Course Requirements Checklist Class Introductions Lab 1 Lab 2	10 0 40 40
2	Netacad Introduction to Networks: Modules 5–6 1 presentation	DB 1 Lab 3 Lab 4	30 40 40
3	Netacad Introduction to Networks: Modules 7–9 1 presentation	Lab 5 Lab 6	40 40
4	Netacad Introduction to Networks: Modules 10–11 1 presentation	Lab 7 Netacad Exam (Midterm)	40 150
5	Netacad Routing and Switching: Modules 1–3 1 presentation	Lab 8 Lab 9 Lab 10	40 40 40
6	Netacad Routing and Switching: Modules 4–6 1 presentation	DB 2 Lab 11 Lab 12	30 40 40
7	Netacad Routing and Switching: Modules 7–9 1 presentation	Lab 13 Lab 14	40 40
8	Netacad Routing and Switching: Module 10 1 presentation	Lab 15 Lab 16 Netacad Exam (Final)	40 40 150
		TOTAL	**1010**

DB = Discussion Board

NOTE: Each course module/week (except Module/Week 1) begins on Tuesday morning at 12:00 a.m. (ET) and ends on Monday night at 11:59 p.m. (ET). The final module/week ends at 11:59 p.m. (ET) on **Friday**.