

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 not be used to purchase course materials.

COURSE SYLLABUS

CSIS 430

ADVANCED NETWORKING AND COMMUNICATION SYSTEMS

COURSE DESCRIPTION

This course focuses on routed data networks and the implementation of previously learned business data communications and switched networks concepts, principles and strategies to build a complete data communications network. This course is an in-depth study of technologies and equipment in modern communication networks. The TCP/IP stack and Cisco (or comparable) networking equipment are used to explore methodologies for designing, configuring, and maintaining communication networks. (Formerly BMIS 430)

RATIONALE

This course is offered to CSIS majors who seek to build advanced knowledge and skills needed in designing and deploying efficient and effective data communications and network technologies, which solve common business challenges. It culminates the networking series by picking up with the switched networking taught in the CSIS 331 course and extending the student's knowledge through routed networks and the Internet technologies. By the end of the CSIS 330, CSIS 331, and CSIS 430 sequence, the student will have been exposed to most of the subject areas in a network certification exam.

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
- E. <https://www.netacad.com/>
- F. APA Formatting Information
<http://ezproxy.liberty.edu/login?url=http://APAStyleCENTRAL.apa.org>

IV. MEASURABLE LEARNING OUTCOMES

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

- A. Discuss the relevance of course material to a biblical world view.
- B. Apply key telecommunication concepts (such as data transmission, packets, topology, the OSI model, protocols, and standards) associated with networks.
- C. Apply key networking concepts to provide network services.
- D. Implement network components and devices to provide a business with internetworking capabilities.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

- A. Textbook readings and 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 (4)

There will be 4 Discussion Board Forums completed in this course. Discussion boards are collaborative learning experiences. Therefore, the student is required to post 1 thread of at least 250 words in response to a provided prompt. For each thread, the student must support his/her assertions with at least 1 citation in current APA format. Acceptable sources include Cisco material, the Bible, and scholarly journals. The student must also post 2 replies of at least 100 words to his/her classmates' threads.

- D. Packet Tracer Labs (13)

There are 13 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. The 2 ICND Practice certification PT labs will be completed in the NetAcademy course.

- E. Exams (2)

The exams 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 (4 at 35 pts ea) | 140 |
| Packet Tracer Labs (11 at 40 pts ea) | 440 |
| ICND Practice Certification Exams (2 @ 60 pts ea) | 120 |
| Exams (2 at 150 pts ea) | 300 |
| 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 Accommodation Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.

If you have a complaint related to disability discrimination or an accommodation that was not provided, you may contact ODAS or the Office of Equity and Compliance by phone at (434) 592-4999 or by email at equityandcompliance@liberty.edu. Click to see a full copy of Liberty's [Discrimination, Harassment, and Sexual Misconduct Policy](#) or the [Student Disability Grievance Policy and Procedures](#).

COURSE SCHEDULE

CSIS 430

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

| MODULE/ WEEK | READING & STUDY | ASSIGNMENTS | POINTS |
|-------------------------|---|--|---------------|
| 1 | Netacad Scaling Networks: chs. 1–3 | Course Requirements Checklist | 10 |
| | | DB Forum 1 | 35 |
| | | PTL 1 | 40 |
| | | PTL 2 | 40 |
| 2 | Netacad Scaling Networks: chs. 4-5 2 presentations | DB Forum 2 | 35 |
| | | PTL 3 | 40 |
| | | PTL 4 | 40 |
| 3 | Netacad Scaling Networks: chs. 6-9 1 presentation | PTL 5 | 40 |
| | | PTL 6 | 40 |
| 4 | Netacad Scaling Networks: chs. 10 1 presentation | PTL 7 | 40 |
| | | Midterm Exam | 150 |
| 5 | Netacad Connecting Networks: chs. 1–2 | DB Forum 3 | 35 |
| | | PTL 8 | 40 |
| | | PTL 9 | 40 |
| 6 | Netacad Connecting Networks: chs. 3–5 2 presentations | PTL 10 | 40 |
| | | PTL 11 | 40 |
| 7 | Netacad Connecting Networks: chs. 6–8 1 presentation | DB Forum 4 | 35 |
| | | CCENT (ICND1) Practice Certification Exam | 60 |
| 8 | Netacad Connecting Networks: chs. 1-8 (Review) | CCNA (ICND2) Practice Certification Exam | 60 |
| | | Final Exam | 150 |
| TOTAL | | | 1010 |

DB = Discussion Board

PTL = Packet Tracer Lab

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**.