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.
BMIS 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.

RATIONALE
The BMIS 331 Networks course is the next logical progression in the study of both Information Assurance and Data Networking cognates. The prerequisite BMIS 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 BMIS 430 course.

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

II. REQUIRED RESOURCE PURCHASES
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. Microsoft Office
D. https://www.netacad.com/

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. Therefore, the student is required to post 1 thread of 250 words or more. 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 each to his/her classmates.
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. This exam will be open-book/open-notes, contain 55 Netacad questions, and have a 2-hour time limit.
F. Final Exam
   The Final Exam will cover the Reading & Study material for the assigned modules/weeks. This exam will be open-book/open-notes, contain 80 Netacad questions, and have a 1-hour and 15-minute time limit.

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. Late Assignment Policy
If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.
Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week of the due date will receive a 10% deduction.

2. Assignments submitted more than one week late will receive a 20% deduction.

3. Assignments submitted two weeks late or after the final date of the course will not be accepted.

4. Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g. death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

D. 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
## COURSE SCHEDULE

**BMIS 331**

<table>
<thead>
<tr>
<th>MODULE/WEEK</th>
<th>READING &amp; STUDY</th>
<th>ASSIGNMENTS</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Netacad Introduction to Networks: chs. 1–3 2 presentations</td>
<td>Course Requirements Checklist Class Introductions PTL 1 – 2.4.1.2 PTL 2 – 4.2.4.5</td>
<td>10 0 40 40</td>
</tr>
<tr>
<td>2</td>
<td>Netacad Introduction to Networks: chs. 4–6 1 presentation</td>
<td>DB Forum 1 PTL 3 – 5.3.3.5 PTL 4 – 6.5.1.2</td>
<td>30 40 40</td>
</tr>
<tr>
<td>3</td>
<td>Netacad Introduction to Networks: chs. 7–9 1 presentation</td>
<td>PTL 5 – 8.4.1.2 PTL 6 – 9.4.1.2</td>
<td>40 40</td>
</tr>
<tr>
<td>4</td>
<td>Netacad Introduction to Networks: chs. 10–11 1 presentation</td>
<td>PTL 7 – 11.6.1.2 Midterm Exam</td>
<td>40 150</td>
</tr>
<tr>
<td>5</td>
<td>Netacad Routing and Switching: chs. 1–3 1 presentation</td>
<td>PTL 8 – 1.3.1.3 PTL 9 – 2.4.1.10 PTL 10 – 3.4.1.2</td>
<td>40 40 40</td>
</tr>
<tr>
<td>6</td>
<td>Netacad Routing and Switching: chs. 4–6 1 presentation</td>
<td>DB Forum 2 PTL 11 – 5.1.3.6 PTL 12 – 6.5.2.4</td>
<td>30 40 40</td>
</tr>
<tr>
<td>7</td>
<td>Netacad Routing and Switching: chs. 7–9 1 presentation</td>
<td>PTL 13 – 8.4.1.2 PTL 14 – 9.4.2.8</td>
<td>40 40</td>
</tr>
<tr>
<td>8</td>
<td>Netacad Routing and Switching: chs. 10–11 1 presentation</td>
<td>PTL 15 – 11.3.1.2 PTL 16 – 11.4.1.2 Final Exam</td>
<td>40 40 150</td>
</tr>
</tbody>
</table>

**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.