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.

COURSE SYLLABUS

BMIS 663
SECURE ENTERPRISE DESIGN AND DEVELOPMENT

COURSE DESCRIPTION

This course includes studies in security architecture and applications security. A detailed look will be given at the concepts, principles, structures and standards used to design, implement, monitor and secure operating systems, equipment, networks and applications. The course will explore controls used to enforce various levels of confidentiality, integrity, and availability.

RATIONALE

In the competitive marketplace of today, firms must operate efficiently by continually monitoring activities for reducing costs and increasing revenues. Such efficiencies rely on a stable enterprise architecture where systems are interconnected and information is secure. The importance of a well- designed, well-developed, and well-managed enterprise is paramount in order for firms to leverage pertinent data and make this information available for knowledge workers dispersed throughout the corporate organization. BMIS 663 assists in this regard by providing a thorough review of the necessary computer security components needed to maintain a secure enterprise.

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

IV.   **MEASURABLE LEARNING OUTCOMES**

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

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

B.   Compare modern information security standards.

C.   Explain access control theory.

D.   Apply access control theory.

E.   Distinguish physical and operations security.

F.   Illustrate secure design principles for systems, networks, and applications.

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 (8)

Discussion boards are collaborative learning experiences. Therefore, the student will complete the assigned textbook readings in each module/week and post a thread of at least 250 words, containing thoughtful answers to 2 questions from the assigned reading. No more than 4 students may answer the same question. If necessary, the student may also list within his/her thread any concepts on which further clarification is needed. The student must then reply to at least 2 classmates' threads. A reply to a classmate's request for clarification will be accepted as 1 of the 2 required replies. Each reply must contain at least 150 words.

D.   Project Feasibility Study

The student will select a business in order to begin research on the Final Project. The objective of this project is to analyze, design, and plan to implement a secure enterprise information system. The paper must incorporate professional writing, current APA standards, and at least 5 scholarly references (e.g., peer-reviewed journal articles).

E.   Secure Network Application Project

Using Microsoft Visio or a subsequent visual design tool, the student will diagram a network and write a thorough report detailing the design. The report must be a minimum of 5 pages (excluding the title page), Visio diagram(s), and references. It must include, at a minimum, 5 peer-reviewed sources to justify the design.

F.   Firewall Application Project

The student will develop an appropriate set of firewall rules and access control lists. Using appropriate professional research, the student will document the necessary access information for the designed information system. The project must be a minimum of 5 pages (excluding the title page, firewall rules, and references), follow current APA standards, and include a minimum of 5 peer-reviewed sources.

G.   Final Project

The student will prepare a research paper that is 25 pages, not including the title page and reference page. The research must demonstrate thoughtful consideration of the ideas and concepts presented in the course and provide new thoughts and insights relating directly to the topic of information security planning. The overall goal of this project is to develop, introduce, discuss, and present a specific policy as part of an information security plan. Additionally, the paper must reflect professional writing, current APA standards, and include a minimum of 10 scholarly references (e.g., peer-reviewed journal articles).

H.   Quizzes (3)

Each quiz will cover the Reading & Study material up to and including the module/week in which it is assigned. Each quiz will be open-book/open-notes, contain 12 multiple- choice questions, and have a time limit of 20 minutes.

I.   Midterm Exam

The exam will cover the Reading & Study materials for Modules/Weeks 1–4. It will be open-book/open-notes, contain 68 multiple-choice questions, and have a time limit of 2 hours.

VI.   COURSE GRADING AND POLICIES

A.   Points

Course Requirements Checklist	10
Discussion Board Forums (8 at 35 pts ea)	280
Project Feasibility Study	50
Secure Network Application Project	50
Firewall Application Project	50
Final Project	220
Quizzes (3 at 60 pts ea)	180
Midterm Exam	170
Total	1010

B.   Scale

A = 940–1010   A- = 920–939   B+ = 900–919   B = 860–899   B- = 840–859

C+ = 820–839   C = 780–819   C- = 760–779   F = 0–759

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.

COURSE SCHEDULE

BMIS 663

Textbook: Boyle & Panko, *Corporate Computer Security* (2015).

MODULE/ WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	Boyle & Panko: ch. 1 1 presentation 1 website	Course Requirements Checklist Class Introductions DB Forum 1 Project Feasibility Study	10 0 35 50
2	Boyle & Panko: ch. 2 1 presentation 1 website	DB Forum 2 Quiz 1	35 60
3	Boyle & Panko: ch. 3 1 presentation 1 website	DB Forum 3 Secure Network Application Project	35 50
4	Boyle & Panko: ch. 4 1 presentation 1 website	DB Forum 4 Midterm Exam	35 170
5	Boyle & Panko: ch. 5 1 presentation	DB Forum 5 Quiz 2	35 60
6	Boyle & Panko: chs. 6–7 1 presentation 1 video	DB Forum 6 Firewall Application Project	35 50
7	Boyle & Panko: chs. 8–9 1 presentation	DB Forum 7 Quiz 3	35 60
8	Boyle & Panko: ch. 10 1 presentation	DB Forum 8 Final Project	35 220
		TOTAL	1010

DB = Discussion Board

NOTE: Module/Week one begins on **Monday** and ends at 11:59 p.m. (ET) on **Friday**. Modules/Weeks 2-8 begin on **Saturday** and end at 11:59 p.m. (ET) on **Friday**.