BISO157 Networking,Systems & Security (BIS-324-0... ✉ 💬 🔔   SF

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Syllabus

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Syllabus

BIS-324: Networking, Systems and Security

Course Description

This course examines the hardware and technology used to build the infrastructure of an information system. It provides an in-depth look at networking, data communications, security, systems management, and Internet/Intranet technology. By learning the architecture of computing technology, students will be able to more effectively apply information technology to information systems in a business environment.

Credit Hours: 3
Prerequisite Courses: n/a
Prerequisite Skills and Knowledge:

- Ability to read and comprehend complex technical information.
- Ability to critically think and apply information to complete assigned work.
- Ability to utilize a learning management system to complete assigned work.
- Ability to utilize Microsoft Word to complete assignments.
- Ability to write papers in APA format.

Course Outcomes

Upon successful completion of this course, you should be able to:

1. Describe the Cloud and communication components included in business information system's infrastructure.
2. Understand TCP/IP and its effect on modern day communications.
3. Learn network standard and important networking technology.
4. Understand and develop network troubleshooting skills.
5. Evaluate network technology and its significant impact on contemporary business information processing.
6. Evaluate and understand current wireless network strategies in the business environment.
7. Learn how to manage and administer networking systems.
8. Understand the threat and issues of computer systems and network.
9. Evaluate current status of security threats to computer systems and networking.
10. Explain network security techniques and strategies.

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11. Describe and evaluate Internet and Intranet technical strategies.
12. Understand corporate security and user accessibility by utilizing systems management tools and best practices.
13. Describe cloud computing and virtualization, as well as security issues.

Course Textbook

Bonaventure,O. (2011, October 31). *Computer networking: Principles, protocols, and practice*. The Saylor Foundation.

https://s3.amazonaws.com/saylordotorg-resources/wwwresources/site/wp-content/uploads/2012/02/Computer-Networking-Principles-Bonaventure-1-30-31-OTC1.pdf

Course Technology

- Wireshark, https://www.wireshark.org/

- Nmap, https://nmap.org/

IWU Diversity Statement

IWU, in covenant with God's reconciling work and in accordance with the Biblical principles of our historic Wesleyan tradition, commits to build a community that reflects Kingdom diversity.

We will foster an intentional environment for living, teaching, and learning, which exhibits honor, respect, and dignity. Acknowledging visible or invisible differences, our community authentically values each member's earthly and eternal worth. We refute ignorance and isolation and embrace deliberate and courageous engagement that exhibits Christ's commandment to love all humankind. (2016)

Grading Scale

NOTE: In graduate level courses, a grade of C- or below will require the course to be repeated.

Grade	Quality Points Per Credit	Percentage	Score
A	4.0	95%–100%	950–1000
A-	3.7	92%–94.9%	920–949
B+	3.3	89%–91.9%	890–919
B	3.0	85%–88.9%	850–889
B-	3.7	82%–84.9%	820–849

B-	2.7	82%–84.9%	820–849
C+	2.3	79%–81.9%	790–819
C	2.0	75%–78.9%	750–789
C-	1.7	72%–74.9%	720–749
D+	1.3	69%–71.9%	690–719
D	1.0	65%–68.9%	650–689
F	0.0	0%–64.9%	0–649

Grading Policies

Your grading policy for your course is dependent on your school and program. Your grading policies can be found in the IWU Catalog.

Letter Grade Equivalencies

NOTE: In graduate level courses, a grade of C- or below will require the course to be repeated.

Grade	Description of Work
A	Clearly stands out as excellent performance. Has unusually sharp insights into material and initiates thoughtful questions. Sees many sides of an issue. Articulates well and writes logically and clearly. Integrates ideas previously learned from this and other disciplines. Anticipates next steps in progression of ideas. Example "A" work should be of such nature that it could be put on reserve for all cohort members to review and emulate. The "A" cohort member is, in fact, an example for others to follow.
B	Demonstrates a solid comprehension of the subject matter and always accomplishes all course requirements. Serves as an active participant and listener. Communicates orally and in writing at an acceptable level for the degree program. Work shows intuition and creativity. Example "B" work indicates good quality of performance and is given in recognition for solid work; a "B" should be considered a good grade and awarded to those who submit assignments of quality less than the exemplary work described above.

C	Quality and quantity of work in and out of class is average. Has marginal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at least minimally.
D	Quality and quantity of work is below average. Has minimal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at below acceptable levels.
F	Quality and quantity of work is unacceptable and does not qualify the student to progress to a more advanced level of work.

Course Workshop Summary

Workshop	Discussion*	Assignment*	Quiz/Exam*
Workshop One	2/60	1/60	1/50
Workshop Two	1/30	4/120	1/30
Workshop Three	1/30	4/110	1/30
Workshop Four	1/30	3/110	1/30
Workshop Five	1/30	3/70	1/30
Workshop Six	1/30	3/150	--
End of Course Survey	--	--	--
TOTAL	7/210	16/620	5/170

* Number of Activities/Sum Point Totals

Workshop One

Title	Due Dates	Time	Points
1.1 Exercise: Read Chapter	Due by the end of the		

Title	Due Dates	Time	Points
1.1 Exercise: Read Chapter 2	Due by the end of the workshop.	2 hours	0
1.2 Discussion: The Cloud	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
1.3 Discussion: Reliable Protocols	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
1.4 Assignment: Chapter Questions	Due by the end of the workshop.	4 hours	60
1.5 Quiz	Due by the end of the workshop.	2 hours	50
	Totals	12 hours*	170

Workshop Two

Title	Due Dates	Time	Points
2.1 Exercise: Read Chapter 3	Due by the end of the workshop.	3 hours	0
2.2 Discussion: Application Layer Security	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
2.3 Assignment: DNS	Due by the end of the workshop.	2 hours	30
2.4 Assignment: Mail Protocols	Due by the end of the workshop.	2 hours	30
2.5 Assignment: SNMP	Due by the end of the workshop.	2 hours	30

Title	Due Dates	Time	Points
2.6 Assignment: SSH	Due by the end of the workshop.	2 hours	30
2.7 Quiz	Due by the end of the workshop.	2 hours	30
Totals		**15 hours***	**180**

Workshop Three

Title	Due Dates	Time	Points
3.1 Exercise: Read Chapter 4	Due by the end of the workshop.	3 hours	0
3.2 Discussion: QUIC	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
3.3 Assignment: Lab Prep	Due by the end of the workshop.	1 hour	20
3.4 Assignment: Netstat	Due by the end of the workshop.	2 hours	30
3.5 Assignment: Nmap	Due by the end of the workshop.	2 hours	30
3.6 Assignment: Wireshark	Due by the end of the workshop.	2 hours	30
3.7 Quiz	Due by the end of the workshop.	2 hours	30
Totals		**16 hours***	**170**

Workshop Four

Title	Due Dates	Time	Points

4.1 Exercise: Read Chapter 5	Due by the end of the workshop.	2 hours	0
4.2 Discussion: Routing	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
4.3 Assignment: IPv4 and IPv6	Due by the end of the workshop.	3 hours	40
4.4 Assignment: Routing	Due by the end of the workshop.	4 hours	30
4.5 Assignment: Tools	Due by the end of the workshop.	2 hours	40
4.6 Quiz	Due by the end of the workshop.	2 hours	30
	Totals	**15 hours***	**170**

Workshop Five

Title	Due Dates	Time	Points
5.1 Exercise: Read Chapter 6	Due by the end of the workshop.	2 hours	0
5.2 Discussion: Discussion: Physical Links	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
5.3 Assignment: Ethernet	Due by the end of the workshop.	2 hours	30
5.4 Assignment: Wireless	Due by the end of the workshop.	2 hours	30
5.5 Assignment: Tools	Due by the end of the workshop.	1 hour	10

5.6 Quiz	Due by the end of the workshop.	2 hours	30
	Totals	**11 hours***	**130**

Workshop Six

Title	Due Dates	Time	Points
6.1 Discussion: Human Firewall	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop.	2 hours	30
6.2 Assignment: Access Control	Due by the end of the workshop.	2 hours	30
6.3 Assignment: Policies and Procedures	Due by the end of the workshop.	2 hours	30
6.4 Assignment: Network Security	Due by the end of the workshop.	8 hours	90
6.5 Survey: End of Course Survey	Due by the end of the workshop.	-	10 extra credit
	Totals	**14 hours***	**180**

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Activity Details	Completion Summary

☐ Task: View this topic