

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.
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

Panko, R. R., & Panko, J. L. (2015). *Business data networks and security*. (10th ed.). Upper Saddle River, NJ: Prentice Hall.

Boyle, R. J., & Panko, R. R. (2013). *Corporate computer security*. (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Course Technology

None.

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- | 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* | Total Points per Workshop |
|-----------------------------|-------------|-------------|------------|---------------------------|
| Workshop One | 2/30 | 1/50 | 1/25 | 105 |
| Workshop Two | 2/30 | 2/65 | 1/25 | 120 |
| Workshop Three | 2/30 | 1/50 | 1/25 | 105 |
| Workshop Four | 2/30 | 2/70 | 1/25 | 125 |
| Workshop Five | 2/30 | 1/50 | 1/25 | 105 |
| Workshop Six | 2/30 | 2/65 | 1/25 | 120 |
| Workshop Seven | 2/30 | 1/40 | 1/25 | 95 |
| Workshop Eight | 2/30 | 2/170 | 1/25 | 225 |
| End of Course Survey | -- | -- | -- | 10 Extra Credit |
| TOTAL | 16/240 | 12/560 | 8/200 | 1000 |

* Number of Activities/Sum Point Totals

Workshop One

| Title | Due Dates | Time | Points |
|--|--|-----------|--------|
| 1.1 Exercise: Read Chapters 1 and 2 | Due by the end of the workshop. | 4.5 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. | 1.5 hours | 15 |
| 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. | 1.5 hours | 15 |
| 1.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 50 |
| 1.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 1.6 Exercise: Final Project | Part 1 due by the end Workshop 2. Final Paper due by the end of the Workshop 8. | 2 hours | 0 |

| | | |
|---------------|--------------------|------------|
| Totals | 16.5 hours* | 105 |
|---------------|--------------------|------------|

Workshop Two

| Title | Due Dates | Time | Points |
|---|--|------------------|------------|
| 2.1 Exercise: Read Chapters 5 and 10 | Due by the end of the workshop. | 6 hours | 0 |
| 2.2 Discussion: WANs and LANs | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 2.3 Discussion: LANs and Ethernet | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 2.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 50 |
| 2.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 2.6 Assignment: Final Project - Topic and Thesis Statement | Due by the end of the workshop. | 2 hours | 15 |
| Totals | | 18 hours* | 120 |

Workshop Three

| Title | Due Dates | Time | Points |
|--|--|------------------|------------|
| 3.1 Exercise: Read Chapters 6 and 7 | Due by the end of the workshop. | 4 hours | 0 |
| 3.2 Discussion: 802.11g vs. 802.11n | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 3.3 Discussion: TJX Case | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 3.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 50 |
| 3.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 3.6 Exercise: Final Project | Next required submission in Workshop Four. | 2 hours | 0 |
| Totals | | 16 hours* | 105 |

Workshop Four

| Title | Due Dates | Time | Points |
|--|--|------------------|------------|
| 4.1 Exercise: Read Chapters 8 and 9 | Due by the end of the workshop. | 6 hours | 0 |
| 4.2 Discussion: Name Resolution | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 4.3 Discussion: Internet and Business | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 4.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 55 |
| 4.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 4.6 Assignment: Final Project-Resource List | Due by the end of the workshop. | 2 hours | 15 |
| Totals | | 18 hours* | 125 |

Workshop Five

| Title | Due Dates | Time | Points |
|---|--|--------------------|------------|
| 5.1 Exercise: Read Chapters 1 and 2 | Due by the end of the workshop. | 7.5 hours | 0 |
| 5.2 Discussion: Criminal Threats | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 5.3 Discussion: Regulations and Compliance | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 5.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 50 |
| 5.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 5.6 Exercise: Final Project | Next submission due during Workshop Six. | 2 hours | 0 |
| Totals | | 19.5 hours* | 105 |

Workshop Six

| Title | Due Dates | Time | Points |
|-------|-----------|------|--------|
|-------|-----------|------|--------|

| | | | |
|---|--|--------------------|------------|
| 6.1 Exercise: Read Selected Sections | Due by the end of the workshop. | 7.5 hours | 0 |
| 6.2 Discussion: Disaster Recovery | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 40 |
| 6.3 Discussion: Network Attacks | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 40 |
| 6.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 50 |
| 6.5 Quiz | Due by the end of the workshop. | 3 hours | 75 |
| 6.6 Assignment: Final Project - Outline and Introductory Paragraph | Due by the end of the workshop. | 2 hours | 40 |
| Totals | | 19.5 hours* | 120 |

Workshop Seven

| Title | Due Dates | Time | Points |
|--|--|--------------------|---------------|
| 7.1 Exercise: Read Chapters 5 and 6 | Due by the end of the workshop. | 8.5 hours | 0 |
| 7.2 Discussion: Biometrics | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 7.3 Discussion: DMZ | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 7.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 40 |
| 7.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 7.6 Exercise: Final Project | Next required submission in Workshop Eight. | 2 hours | 0 |
| Totals | | 20.5 hours* | 245 |

Workshop Eight

| Title | Due Dates | Time | Points |
|---|---------------------------------------|------------------|---------------|
| 8.1 Exercise: Read Selected Sections | Due by the end of the workshop. | 5.5 hours | 0 |
| 8.2 Discussion: SEP Attacks | Post your initial response by the end | 1.5 hours | 15 |

| | | | |
|--|--|--------------------|-----------------|
| | of the fourth day of the workshop and your two responses by the end of the workshop. | | |
| 8.3 Discussion: Email | Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop. | 1.5 hours | 15 |
| 8.4 Assignment: Chapter Questions | Due by the end of the workshop. | 4 hours | 75 |
| 8.5 Quiz | Due by the end of the workshop. | 3 hours | 25 |
| 8.6 Assignment: Final Project | Due by the end of the workshop. | 4 hours | 95 |
| End of Course Survey | Due by the end of the workshop. | -- | 10 Extra Credit |
| Totals | | 19.5 hours* | 225 |

Course Assignments

| | | |
|---------------|---------------------|-------------|
| TOTALS | 147.5 hours* | 1000 |
|---------------|---------------------|-------------|

* These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Course Development Resources

Alternative Assignment Policy

Students with a documented disability may request accommodations for an alternative assignment(s) for course activities (Examples: video assignments, etc.). It is the student's responsibility to submit the form received from the Disability Services Office indicating his/her specific accommodation to the instructor prior to the start of each course.

Expectations, Policies, and Important Student Information

| School/Division | Link |
|---|--|
| DeVoe School of Business Division of Liberal Arts School of Services and Leadership | View School/Division Expectations, Policies, and Student Information |
| School of Educational Leadership | View School/Division Expectations, Policies, and Student Information |
| Wesley Seminary @ IWU | View School/Division Expectations, Policies, and Student Information |
| Nursing - Undergraduate | View School/Division Expectations, Policies, and Student Information |
| Nursing - Graduate | View School/Division Expectations, Policies, and Student Information |