

Wayland Mission Statement

Wayland Baptist University exists to educate students in an academically challenging, learning-focused, and distinctively Christian environment for professional success, and service to God and humankind.

Contact Information

Course: MISM 5341 <<VC01>> – Advanced Computer Networking and Data Management

Campus: <<WBUonline >>

Term/Session: <<Summer 2026>>

Instructor: <<Dr. Lisa Lee Bryan>>

Office Phone Number/Cell #: <<910-247-4410>>

WBU Email Address: <<bryanl@wbu.edu>>

Office Hours, Building, and Location: << Monday 5:00 p.m. to 7:30 p.m. Central >>

Class Meeting Time and Location: << Online only – appointments available upon request >>

Catalog Description:

Benefits of using computer networks, technology associated with them, and how to design, implement, and manage them. Fundamentals of telecommunications, network topologies, network design strategies, and the implementation of networks into organizations, including a semester project allowing students to design a network application.

Prerequisite:

None

Textbook Information

Required Textbook(s) and/or Required Materials:

BOOK	AUTHOR	YEAR	PUBLISHER	ISBN#
Data + Perform	CompTIA	2025	CompTIA	9781-64274-6310

*This course is part of the **Pioneer Academic Access Program**. You will have access to an eBook, access code, and interactive learning material on the first day of class through your Blackboard course site. You will be notified via email with access instructions and additional information. If the course requires a physical book you can order at bookstore.wbu.edu. You can choose to opt-out, however if you do you will lose access to **EVERY class/material** and have to source through third party vendors.*

Optional Materials: <<none >>

Course Outcome Competencies:

- Discuss the fundamental principles of electronic communications
- Discuss the various protocols used in data communications
- Demonstrate the ability to setup and maintain networking systems

Attendance Requirements

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WBUonline

Students are expected to participate in all required instructional activities in their courses. Online courses are no different in this regard; however, participation must be defined in a different manner. Student “attendance” in an online course is defined as active participation in the course as described in the course syllabus. Instructors in online courses are responsible for providing students with clear instructions for how they are required to participate in the course. Additionally, instructors are responsible for incorporating specific instructional activities within their course and will, at a minimum, have weekly mechanisms for documenting student participation. These mechanisms may include, but are not limited to, participating in a weekly discussion board, submitting/completing assignments in Blackboard, or communicating with the instructor. Students aware of necessary absences must inform the professor with as much advance notice as possible in order to make appropriate arrangements. Any student absent 25 percent or more of the online course, i.e., non-participatory during 2 or more weeks of an 8-week session, may receive an F for that course. Instructors may also file a Report of Unsatisfactory Progress for students with excessive non-participation. Any student who has not actively participated in an online class prior to the census date for any given session is considered a “no-show” and will be administratively withdrawn from the class without record. To be counted as actively participating, it is not sufficient to log in and view the course. The student must be submitting work as described in the course syllabus. Additional attendance and participation policies for each course, as defined by the instructor in the course syllabus, are considered a part of the university’s attendance policy.

University Policies

Academic Integrity:

[Link to Statement on Academic Integrity](#)

Artificial Intelligence: No use of any generative AI tools permitted.

- Students are required to create and produce all work themselves or with assigned group members. Any work submitted that has used an AI generative tool like ChatGPT will be in immediate violation of the academic integrity policies for the course and WBU.
- All assignments must be fully created, designed, and prepared by the student(s).
- Any work that uses generative AI will be treated as plagiarism.

Disability Statement: In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded

from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Disability Services Coordinator and Academic Coach serves as the coordinator of students with disabilities and must be contacted concerning accommodation requests. Office: (806) 291-1057. Documentation of a disability must accompany any request for accommodations.

Course Requirements and Grading Criteria

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Student Grade Appeals: Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Vice President of Academic Affairs to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.

Tentative Schedule

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Week	Defense Analysis	Chapter
1	Summarizing Data Concepts Comparing and Contrasting Different Data Systems	1,2
2	AI and Data Languages and Tools for Data Data Acquisition	3,4, 5 – 5.3
3	Data Acquisition, Con't Quality Control and Data Profiling and Cleansing Data	5.4 – 5.7, 6, 7
4	Data Manipulation Techniques Building Queries to Model Data Preparing for Data Analysis	8, 9, 10
5	Applying Statistical Descriptive Methods Illustrating Different Statistical Methods Summarizing Business Requirements	11, 12, 13
6	Using the Appropriate Data Visualization Components for Reports and Dashboards	14, 15, 16

	Preparing for Delivery and Consumption of Reports	
7	Importance of Data Governance Data Management Concepts Troubleshooting and Performance	17, 18, 19, A1 Practice
Final	Data + Review	A2, Certification

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Additional Information

<<N/A>>