WAYLAND BAPTIST UNIVERSITY

ONLINE CAMPUS

SCHOOL OF MATHEMATICS AND SCIENCES

## 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.

## Course Title and Number:

CSCI 3375-SPRING2ND8WKS; Computer Architecture

## Term:

Spring 2 2023

## Name of Instructor:

Mr. Michael Wade Ashby

## Office Phone Number and WBU Email Address:

Michael.Ashby@wayland.wbu.edu

## Office Hours, Building, and Location:

Office hours will be virtual by appointment which can be set up by email. Through email we will determine the best platform for both of us to use to conduct the meeting.

## Class Meeting Time and Location:

Class will be completed in Blackboard.

## Catalog Description:

Introduction to the functional components of computer systems; their hardware implementation and management at different levels; their interaction, characteristics, and performance as well as their practical implications for computer programming.

## Prerequisites:

CSCI 2350

## Required Textbook and Resources:

CSCI 3375: Computer Architecture; 2022, zyBooks. ISBN: 979-8-203-06783-8.

## Course Outcome Competencies:

* Explain the memory hierarchy and its importance
* Understand basics of multicore systems and multiprocessor systems
* Understand some basics of networking computing as a platform
* Be able to explain concurrency and deadlocks
* Understand essentials of modern computer architecture, such as caches and pipelining

## Attendance Requirements:

This course is online. Attendance will be measured by activity in the course. Failure to complete 25% of the coursework may fail the course based on policy, but more than likely missing that much work will fail because of a poor grade.

## Statement on Plagiarism and Academic Dishonesty:

Wayland Baptist University observes a zero-tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported, and second offenses will result in suspension from the university.

## 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 Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

## Course Requirements and Grading Criteria:

**Homework and Labs:** The homework will be periodic assignments given such as discussion board participation, questions from the book, or similar. The labs are coding projects that may be given and submitted.

**Quizzes:** A quiz will be given weekly to assess a student’s comprehension of the material to that point. The quiz will be timed to ensure that students are familiar with the text prior to attempting the quiz.

**Exams:** There will two exams, a midterm and final. Each count as 25% of the overall grade.

**Grade Weights:**

35% Homework and Labs

25% Quizzes

20% Midterm Exam

20% Final Exam

**A: 90 – 100 B:  80 – 89 C:  70 – 79 D:  60 – 69 F: Below 60**

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 Executive Vice President/Provost 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 #** | **Dates** | **Material Covered** |
| 1 | 3/27/23 – 4/2/23 | Chapter 1: Combinational Logic I |
| 2 | 4/3/23 – 4/9/23 | Chapter 2: Combinational Logic II |
| 3 | 4/10/23 – 4/16/23 | Chapter 3: Sequential Logic |
| 4 | 4/17/23 – 4/23/23 | Chapter 4: Datapath Components & Midterm |
| 5 | 4/24/23 – 4/30/23 | Chapter 5: RTL Design |
| 6 | 5/1/23 – 5/7/23 | Chapter 6: Datapath Components II |
| 7 | 5/8/23 – 5/14/23 | Chapter 7: Verilog HDL & Chapter 8 VHDL |
| 8 | 5/15/23 – 5/20/23 | Networking Components & Final Exam |

## Academic Honesty:

Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to this course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanctions to any student involved.

Important Dates:

Last day to drop without record – Mar. 31st, 2023

Last day to withdraw with “W” – Apr. 28th, 2023

Last day to withdraw with a “WP/WF” – May 12th, 2023

Last Class –May 20th, 2023

This syllabus is only a plan.  The teacher may modify the plan during the course.  The requirements and grading criteria may be changed during the course if necessary.