

**The University of Alabama in Huntsville**  
**ECE Department**  
**CPE 431/531 01 – Introduction to Computer Architecture**  
**Course Syllabus**  
**Fall 2015**

**Educational Objectives:**

- 1) To understand the complex nature of computer performance.
- 2) To implement a pipelined reduced instruction set computer (RISC) architecture.
- 3) To understand advanced architectural issues such as caching and I/O.
- 4) To gain a basic understanding of distributed processing.

**Relationship of Course to Program Outcomes:**

In this course the student will have to:

- g) Be able to communicate effectively.
- i) Recognize the need for, and be able to engage in lifelong learning

**Instructor:** Dr. Rhonda Gaede, Office: EB 213, Phone: 256.824.6573, email: [gaeder@uah.edu](mailto:gaeder@uah.edu)

**Textbook:** Computer Organization and Design: The Hardware/Software Interface, John. L. Hennessy and David A. Patterson, Morgan Kaufmann Publishers, Inc., 2012, Fifth Edition, ISBN: 978-0-12-407726-3.

**Office Hours:** MW 3-4 PM, R 11 AM -12 PM, or by appointment

| <b><u>Grading:</u></b> | CPE 431 | CPE 531 |
|------------------------|---------|---------|
| Homework               | 20 %    | 20 %    |
| Video                  | 7 %     | 7 %     |
| Writing Assignment s   | 8 %     | 8 %     |
| Tests(2)*              | 30 %    | 30 %    |
| Final Exam*            | 30 %    | 30 %    |
| Class Attendance       | 5 %     | 5 %     |

A student may miss up to 3 unexcused classes and still get all 5 attendance points. A student missing 4 unexcused classes or more will lose all 5 attendance points.

Any homework assignment done in pen will incur a 25 % penalty.

Any test done in pen will incur a 10 % penalty .

\*Students enrolled in CPE 531 will take tests that are different from those taken by the students enrolled in CPE 431 and do additional writing and homework assignments. The final exam may take the place of one of your test scores. I will calculate your grade 1) with the weights shown above and 2) with the final exam counting 45 % and dropping the lowest test score and give you the higher of the two.

**Homework:** Homework will be turned in on either in class or on Canvas and will be due at 11:59 PM on the due date. Late homework will be accepted for two days after the due date for 50 % credit.

**Academic  
Honesty:**

UAH is committed to the fundamental values of preserving academic honesty as defined in the Student Handbook (7.III.A). The instructor reserves the right to utilize electronic means to help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review to Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The terms that apply to the University's use of the Turnitin.com service, as well as additional information about the company, are described at <http://www.uah.edu/library/turnitin>.

**ADA:**

The University of Alabama in Huntsville is committed to providing equal educational opportunities for all qualified students with documented disabilities. Students with disabilities must notify their course instructor during the first week of class, and contact the DSS office ([256-824-6203](tel:256-824-6203)) with requests for accommodations no less than two weeks prior to the start of term. Refer to the following website for further details:  
(<http://www.uah.edu/health-and-wellness/disability-support/welcome>).

**Safety**

Any emergency situation that has an impact on class will be announced through UAlert, UAH's emergency notification system. Visit [ualert.uah.edu](http://ualert.uah.edu) for more information on UAlert and to learn how to edit your UAH emergency notification contact information. If an event such as a tornado warning or fire alarm occurs during class, your instructor will provide guidance on appropriate evacuation measures. Please follow directions provided in class. Full details on UAH Emergency Procedures can be found at [www.uah.edu/emergency](http://www.uah.edu/emergency)

**Important Dates:**

August 25 – Last day to add a class  
September 1 – Last day to withdraw with refund  
September 7- Holiday  
September 10 – Last day to apply for Pass/Fail  
September 16 – Last day to change from credit to audit  
October 8-10 – Fall Break  
October 30 - Last day to withdraw  
November 25-28 - Thanksgiving  
December 1 – Last TR class

**Final Exam:**

Thursday, December 8 – 8:00 AM– 10:30 AM

**Miscellaneous:**

Mute your cell phone before you come to class. If your cell phone goes off during class, you will be required to ring for the class. During tests, cell phones will be placed in a cell phone parking lot.

***Tentative Course Schedule:***

| <u>Date</u> |   | <u>Topic</u>                   | <u>Homework Due</u>            |
|-------------|---|--------------------------------|--------------------------------|
| 8/20        | R | Introduction, 1.1, 1.2, 1.3    |                                |
| 8/25        | T | 1.4, 1.5, 1.6, 1.7, 1.8, 1.9   |                                |
| 8/27        | R | 2.1, 2.2, 2.3, 2.4, 2.5        |                                |
| 9/1         | T | 2.6, 2.7, 2.8, 2.9, 2.10, 2.11 | Video Proposal                 |
| 9/3         | R | 2.12, 2.16, 2.27, 2.18, 2.19   | #1                             |
| 9/8         | T | 3.5 (lightly), 3.6, 3.7, 3.8   |                                |
| 9/10        | R | 3.8, 4.1, 4.2                  | #2                             |
| 9/15        | T | 4.3, 4.4                       |                                |
| 9/17        | R | 4.5, 4.6                       | #3                             |
| 9/22        | T | 4.7, 4.8                       | Videos Due                     |
| 9/24        | R | 4.9, 4.10                      | #4                             |
| 9/29        | T | 4.11, 4.12                     |                                |
| 10/1        | R | 4.14, 5.1                      | #5                             |
| 10/6        | T | Test 1                         |                                |
| 10/8        | R | Holiday                        |                                |
| 10/13       | T | 5.2, 5.3                       |                                |
| 10/15       | R | 5.3, 5.4                       | Writing #1                     |
| 10/20       | T | 5.5, 5.6                       |                                |
| 10/22       | R | 5.7, 5.8                       | #6                             |
| 10/27       | T | 5.9, 5.10                      | Writing #2                     |
| 10/29       | R | 5.13, 5.14                     | #7                             |
| 11/3        | T | 6.1, 6.2                       |                                |
| 11/5        | R | 6.3                            | #8                             |
| 11/10       | T | 6.4, 6.5                       | Writing #3                     |
| 11/12       | R | Test 2                         |                                |
| 11/17       | T | 6.5, 6.6                       |                                |
| 11/19       | R | 6.6, 6.7                       | #9                             |
| 11/24       | T | 6.12, 6.13                     | Graduate Student Extra Writing |
| 11/26       | R | Thanksgiving – No Class        |                                |
| 12/1        | T | Review, Watch Videos           |                                |
| 12/8        | T | Final Exam                     |                                |

I promise or affirm that I will not at any time be involved in cheating, plagiarism, fabrication, misrepresentation, or any other form of academic misconduct as outlined in the UAH Student Handbook while I am enrolled as a student at UAH. I understand that violating this promise will result in penalties as severe as indefinite suspension from the University of Alabama in Huntsville.

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Name (Printed)

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Signature

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Date