Document:	Computer Organization II Course Administration			
Revised:	**October 23, 2019**			
Course Title:	Computer Organization II			
Course Number:	CMSC 3833			
Section:	CRN 10931 and IVE CRN 12802 Monday and Wednesday 4:15 – 5:30 p.m. MCS 115			
Instructor:	Dr. Thomas R. Turner; Office: MCS 134; Work Phone: 974-5383, e-mail: trturner@uco.edu			
Office Hours:	**Time**	**Monday**	**Wednesday**	**Friday**
	10:00 – 10:50 a.m.	MCS 134	MCS 134	MCS 134
	3:15 – 4:15 p.m.	MCS 134	MCS 134	
	Time	**Tuesday**	**Thursday**	
	6:30 – 7:30 p.m.	MCS 134	MCS 134	
	Please make an appointment to visit me during my office hours.			
Text:	1. Null, Linda and Lobur, Julia *Computer Organization and Architecture 5th Ed.*, Jones & Bartlett Learning, 2019, ISBN 978-1284123036			
References:	1. Mano, M. Morris and Ciletti, Michael D. *Digital Design, 4th Ed.* Pearson Prentice Hall 2007 ISBN 0-13-198924-3 2. Mano, M. Morris and Kime, Charles; *Logic and Computer Design Fundamentals, 4th Ed*; Prentice-Hall, Inc. 2009 ISBN: 0-13-198926-X 3. Fletcher, W. *An Engineering Approach to Digital Design.* Prentice-Hall, 1980, ISBN: 0-13-277699-5. 4. Stroustrup, B. *The C++ Programming Language* 3rd Ed.; Addison-Wesley 1997 ISBN 0-201-88954-4			
Prerequisites:	1. CMSC 2833 – Computer Organization I 2. Suggested: CMSC 2613 – Programming II			
Course due dates:	All assignments, projects, reports and quizzes are due at the beginning of class on the date given in this document unless otherwise specified. Exams that are administered in class are due at the end of the class period.			
Course Scoring:	**Task**	**Date**	**Value**	
	Test 1	**9-25**	**150**	
	Test 2	**11-4**	**150**	
	Assignments	Table 2	150	
	Projects	Table 3	150	
	Total		**600**	
Grading:	**A**: 90% (540-600); **B**: 80-89% (480-539); **C**: 70-79% (420-479); **D**: 60-69% (360-419); **F**: 59% (0-359) and below.			
Notice:	Beepers and cellular phones are prohibited in class.			
Caveat:	This lecture schedule, programming projects, reports, quizzes, tests, and due dates are all subject to change. Changes are presented in class ***You*** are responsible for the material presented in class.			

Class Web Page:	The course administration and assignments can be found on URL **http://www.comsc.uco.edu/~trt/cs3833.html**
Course Directory	The course directory is on the department computer (**cs.uco.edu**). You can find project test data files in the course directory. **~tt/cs3833/**
Student Disabilities:	Students with disabilities who require accommodations may contact Disability Support Services. **http://bronze.uco.edu/disability_support/**
Absences:	1. A **45-point bonus** is awarded to any student having no recorded absences. The attendance bonus will be denied to any student who is absent for any reason. The attendance bonus will not be granted to any student having an excused absence. 2. A student may be absent for up to **three (3)** classes without penalty: these three classes are counted as excused absences. No notification or documentation is required except when a test is given. 3. **Fifteen (15)** points will be deducted from the student's final score for the **fourth and every subsequent** class for which the student is recorded absent. 4. A student will receive a zero on an examination unless written justification is presented to the instructor. Acceptable justification includes university sanctioned travel, military obligation, serious illness or injury, or death or serious illness in the immediate family. Work-related conflicts are not acceptable excuses. 5. Please note that **roll is taken** for those students enrolled in the **Interactive Video** section and that **all students are required to take examinations in MCS 115** on the dates given in the schedule.
Academic Honesty and Collaboration:	Students are encouraged to collaborate. However, each student must make a unique contribution to any joint effort and that unique contribution must be visible in the work submitted by the student. Partially or completely copied assignments shall be considered a prima facie case for academic dishonesty.

Table 1. Lecture Schedule

Lecture	Date	Topic	Reference
1	8-19	Course Overview Introduction to Translators – Assemblers	Lecture 35 Lecture 36
2	8-21	Context Free Grammars Lexical Analysis and Lex	Lecture 37 Lecture 38
3	8-26	Syntax Analysis and Yacc **Submit Assignment a01**	Lecture 39
4	8-28	5.1 A Closer Look at Instruction Set Architectures 5.2 Instruction Formats 5.3 Instruction Types	Lecture 40 Lecture 41 Lecture 42
5	9-4	5.4 Addressing 5.5 Instruction Pipelining 5.6 Real-World Examples of ISAs Micro Scanner Example	Lecture 43 Lecture 44 Lecture 45 Lecturer 45.5
6	9-9	6.1 Introduction 6.2 Types of Memory 6.3 The Memory Hierarchy **Submit Assignment a02**	Lecture 46 Lecture 47 Lecture 48
7	9-11	6.4 Cache Memory	Lecture 49
8	9-16	6.4 Cache Memory	Lecture 49
9	9-18	6.5 Virtual Memory **Submit project p01: Binary Search and Exponentiation**	Lecture 50
10	9-23	6.5 Virtual Memory	Lecture 50
11	***9-25***	***Test 1***	***Ch. 4.8 – 5***
12	9-30	Test 1 Reprise	Ch. 4.8 – 5
13	10-2	6.6 A Real-World Example of Memory Management	Lecture 51
14	10-7	ABET Evaluators	
15	10-9	7.1 Input/Output and Storage Systems 7.2 I/O and Performance 7.3 Amdahl's Law **Submit Assignment a03**	Lecture 52 Lecture 53 Lecture 54
16	**10-14**	**No Class – ABET Visit**	
17	10-16	Introduction to Translation Introduction to Interpreters	Lecture 55
18	10-21	Class Demonstration: How to build your assembler	
19	10-23	7.4 I/O Architectures 7.5 Data Transmission Modes	Lecture 56 Lecture 57
20	**10-28**	7.6 Magnetic Disk Technology 7.7 Optical Disks **Submit p02: ISA Assembler**	Lecture 58 Lecture 59
21	10-30	7.8 Magnetic Tape 7.9 RAID 7.10 The Future of Data Storage	Lecture 60 Lecture 61 Lecture 62

Table 1. Lecture Schedule (continued)			
Lecture	**Date**	**Topic**	**Reference**
22	***11-4***	***Test 2***	***Ch. 6***
23	11-6	Test 2 Reprise	
24	**11-11**	**Submit Assignment a04** 9.1 Alternative Architectures 9.2 RISC Machines 9.3 Flynn's Taxonomy	 Lecture 63 Lecture 64 Lecture 65
25	11-13	9.4 Parallel and Multiprocessor Architectures 9.5 Alternative Parallel Processing Approaches 9.6 Quantum Computing	Lecture 66 Lecture 67 Lecture 68
26	**11-18**	**Margin**	
27	**11-20**	**Submit Assignment a05** **Margin – Roll will not be taken!**	
28	**11-25**	**Submit p03: ISA Interpreter** **Margin – Roll will not be taken!**	
29	**12-2**	**Margin – Roll will not be taken!**	
30	**12-4**	**Summary Score Sheets.**	

Table 2. Assignments			
Assignments	**Due**	**Value**	**Description**
a01	8-26	30	p. 289 – 298: Exercises 46, 48, 54, 55, 63
a02	9-9	30	p. 344 – 349: Exercises 3, 13, 19, 22, 25
a03	10-9	30	p. 402 – 410: Exercises 9, 13, 14, 20, 21
a04	11-11	30	p. 472 – 475: Exercises 8, 13, 17, 30, 40
a05	11-20	30	p. 572 – 575: Exercises 6, 10, 12, 24, 30
Total		150	

Table 3. Projects			
Project	**Due**	**Value**	**Description**
p01	9-18	50	Binary Search and Exponentiation
p02	10-23	50	ISA Assembler
p03	11-25	50	ISA Interpreter
Total		150	