DEPARTMENT OF COMPUTER SCIENCE

CMPS 375
Computer Architecture
Spring 2020

Instructor: Dr. Kuo-pao Yang
Title: Professor
Office: CSTB 3019
Telephone: (985) 549 - 5088
Email: kyang@selu.edu
Web Page: http://www2.selu.edu/Academics/Faculty/kyang
YouTube: https://www.youtube.com/user/yangkuopao
Office Hours: T, TH 01:45PM - 03:30PM, 04:45PM - 06:45PM


Course Description: Credit 3 hours. Prerequisite: CMPS 293 or 290. Hardware organization and implementation of computer architecture. Instruction set considerations and addressing modes. System control concepts. CPU control, microprogramming, I/O interface and memory organization. Parallel and data flow architecture.

Schedule (Tentative):

<table>
<thead>
<tr>
<th>Week #</th>
<th>Week of</th>
<th>Topics to be Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/20</td>
<td>Chap01: Introduction</td>
</tr>
<tr>
<td>2</td>
<td>01/27</td>
<td>Chap01: Introduction</td>
</tr>
<tr>
<td>3</td>
<td>02/03</td>
<td>Chap02: Data Representation in Computer Systems</td>
</tr>
<tr>
<td>4</td>
<td>02/10</td>
<td>Chap02: Data Representation in Computer Systems</td>
</tr>
<tr>
<td>5</td>
<td>02/17</td>
<td>Chap03: Boolean Algebra and Digital Logic</td>
</tr>
<tr>
<td>6</td>
<td>02/24</td>
<td>02/24 - 02/26 Mardi Gras Holidays; Chap03: Boolean Algebra and Digital Logic</td>
</tr>
<tr>
<td>7</td>
<td>03/02</td>
<td>Prototype Presentations</td>
</tr>
<tr>
<td>8</td>
<td>03/09</td>
<td>Midterm Exam</td>
</tr>
<tr>
<td>9</td>
<td>03/16</td>
<td>Chap04: MARIE: An Introduction to a Simple Computer</td>
</tr>
<tr>
<td>10</td>
<td>03/23</td>
<td>Chap04: MARIE: An Introduction to a Simple Computer</td>
</tr>
<tr>
<td>11</td>
<td>03/30</td>
<td>Project Midterm Presentations</td>
</tr>
<tr>
<td>12</td>
<td>04/06</td>
<td>Chap05: A Closer Look at Instruction Set Architectures</td>
</tr>
<tr>
<td>13</td>
<td>04/13</td>
<td>04/10 - 04/17 Spring Break</td>
</tr>
<tr>
<td>14</td>
<td>04/20</td>
<td>Chap05: A Closer Look at Instruction Set Architectures</td>
</tr>
<tr>
<td>15</td>
<td>04/27</td>
<td>Project Final Presentations</td>
</tr>
<tr>
<td>16</td>
<td>05/04</td>
<td>Chap06: Memory</td>
</tr>
<tr>
<td>17</td>
<td>05/11</td>
<td>Final Exams</td>
</tr>
<tr>
<td>03/27</td>
<td></td>
<td>Last day to withdraw or resign from the University</td>
</tr>
<tr>
<td>05/22</td>
<td></td>
<td>Last day to return rental textbooks without a fine</td>
</tr>
</tbody>
</table>

Grading Policy:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs/Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Projects</td>
<td>35%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>

A: 90 – 100 %; B: 80 – 89 %; C: 70 – 79 %; D: 60 – 69 %; F: 0 – 59 %
Attendance Policy: Attendance is mandatory for all sessions of this course. Absences will be excused only with a valid written excuse, such as from a physician. [http://www2.selu.edu/Academics/Depts/FacSen/attendencepolicy.pdf](http://www2.selu.edu/Academics/Depts/FacSen/attendencepolicy.pdf)

Program/Homework: Programs/Homework will be collected periodically. Selected problems will be graded. *No late Programs/homework* will be accepted.

Examinations: There will be a midterm and a final examination. *No makeup examinations* will be given. If you miss an examination with an excused absence, your grade for this missed examination will be replaced of your final examination. In the case of illness, doctor’s excuse is needed. If your absence is unexcused, you will receive a grade of zero on the examination you missed.

Academic Dishonesty: Cases involving alleged academic dishonesty will be dealt with according to established university policies. Classroom behavior that is determined inappropriate and cannot be resolved by the student and the faculty member may be referred for administrative or disciplinary review. Cheating on examinations, plagiarism, improper acknowledgment of sources in essays and the use of a single essay or paper in more than one course without permission are considered very serious offenses and shall be grounds for disciplinary action. Additional information about the Code of Student Conduct may be found at [Student Handbook](http://www.selu.edu/admin/stu_affairs/handbook)

ADA Accommodation: If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Room 111, Student Union. No accommodations will be granted without documentation from the Office of Disability Services.

Classroom Decorum: Free discussion, inquiry, and expression are encouraged in this class. Classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of students to benefit from the instructor is not acceptable. Examples include routinely entering class late or departing early; use of beepers, cellular telephones, or other electronic devices; repeatedly talking in class without being recognized; talking while others are speaking; or arguing in a way that is perceived as “crossing the civility line.” In the event of a situation where a student legitimately needs to carry a beeper or cellular telephone to class, prior notice and approval of the instructor is required.

The office/classroom is not a place for children and neither employees nor students are to bring their family members for day care or baby sitting. If children require care, then the employee/student is expected to provide that care in an environment other than Southeastern office/classroom space.

Emergency Plan: To ensure the continuity of courses in the event of a natural disaster or similar emergency, the following plan will be implemented: (1) At the start of the semester, students need to download the syllabus and course schedule to their Google drive. Google drive will remain accessible during a disaster. (2) In the event a student must evacuate his/her home, if possible bring textbooks, notebooks and other class materials. (3) Check email at least once per day. As Gmail is a reliable, cloud-based service, E-mails will be our primary means of communication. (4) Continue to follow the weekly schedule from the syllabus. This includes reading the chapter, viewing power-point slides, and doing homework and labs. (5) Monitor [www.southeastern.edu](http://www.southeastern.edu) periodically for information on campus closures.