



**Stony Brook
University**

CSE 220: System Fundamentals I - Spring 2018

LECTURE 01 and 02

Prof. Jennifer Wong-Ma

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New CS Building, Room 212

(631) 632-1728

Office Hours: W 10am-12pm, Th 1-2pm

Lecture: M/W 8:30-9:50am in Frey Hall 100

Lecture: Tu/Th 2:30-3:50pm in ENG 145

Common Midterm Exam: Wednesday, March 7, 2018 8:45pm - 10:15pm

Common Final Exam: Wednesday, May 16, 2017 8:00am - 10:45am

Course Homepage & PIAZZA: <http://www.cs.stonybrook.edu/~cse220>

This term we will be using PIAZZA for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TAs, and Professors. All non-personal course-related communication should be posted to the discussion board. If you have questions about assignments, technical problems that need troubleshooting, or other questions that might be of interest to other students, they must be posted to PIAZZA and not emailed to the instructor or TA.

If you have any problems or feedback for the developers, email team@piazza.com. Find our class page at: <https://piazza.com/stonybrook/spring2018/cse220/home>

Course Description: This course will introduce assembly language programming and essential concepts of computer organization and architecture. The focus of this course is on the computer organization of a computer system, including the processor architecture and the memory system. In particular, we will discuss the internal representation of information, performance evaluation methodology, instruction set architectures and implementation techniques for computer arithmetic, control path design, and pipelining.

Prerequisite(s): CSE major, and completed CSE 214 or 160 with a C or higher.

Note(s): A minimum grade of C is required in this course for the CSE major or minor.

Credit Hours: 3

Text(s): *Digital Design and Computer Architecture*, 2nd Edition, Morgan Kaufmann, 2013.

Author(s): Harris and Harris; **ISBN-13:** 978-0-12-394424-5

Course Objectives:

At the completion of this course, students will possess:

1. An understanding of processor organization.

2. An understanding of instruction set architecture design, and complex versus reduced instruction set computers.
3. Knowledge of implementation techniques such as number representations, computer arithmetic, processor data paths, pipelining.
4. An ability to program in assembly language and understand the relationship to processor design.

Grade Breakdown: *Pass/No Credit (P/NC) option is not available for this course.*

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| Programming Assignments | 25% |
| Quizzes | 20% |
| Midterm Exam | 20% |
| Final Exam | 30% |
| Recitation Attendance | 5% |

Course Policies:

• Programming Assignments

- Students are expected to work independently. **Offering** and **accepting** solutions from others is an act of **plagiarism**, which is a serious offense and **all involved parties will be penalized according to the Academic Honesty Policy**. Discussion amongst students is encouraged, but when in doubt, direct your questions to the professor or teaching assistants.
- **Extensions or late assignments will not be accepted under any circumstances.** If some sort of emergency prevents you from submitting your assignment on time, supply your section's professor with suitable documentation and notification prior to the assignment deadline.
- **Programming assignments must be completed in MIPS assembly.** A submission that is not in MIPS assembly and is written in some other form/language (for example: in a higher level variant or a code generating software/framework) will not be accepted. You are not permitted to use any code or tools that are not provided by the course.
- Programming assignments must be turned in on or before the day they are due. Students are urged to plan ahead to avoid problems such as congestion or failure of computer facilities at the last minute. If your assignment is incomplete or is not working by the due date, turn in whatever you have. **Note due to limited resources for grading, programs which do not compile or run for testing may not be graded.**

• Quizzes

- Approximately 6 quizzes will be held throughout the semester. Quizzes are closed book, closed notes. Quizzes will be given in lecture which contain questions on the material covered in lecture, textbook, and recitation. The quizzes are to be completed individually in the allotted time.
- **No makeup quizzes will be given, except for PRIOR excused absences with documentation.**
- All grading issues must be submitted to an instructor within 1 week of receipt of the graded quiz. Request must identify problem(s) # and reason for the request.

- **Examinations**

- Exams are closed book, closed notes.
- A common exam and common final will be given to both lectures.
- **No makeup exams will be given, except for PRIOR excused absences with documentation.**

- **Attendance**

- Attendance is expected and will be taken each recitation. You are allowed to miss **1** recitation during the semester without penalty. Any further absences will result in point and/or grade deductions.
- Students are responsible for all missed work, regardless of the reason for absence. It is also the absentee's responsibility to get all missing notes or materials.

Etiquette:

- **Email**

When emailing your instructor about the course use the following guidelines to ensure a timely response:

- use your official @stonybrook.edu email account
- use a descriptive subject line that includes “CSE 220” and a brief note on the topic (eg. “CSE220: Appointment”)
- begin with a proper greeting, such as “Hi Prof. McDonnell” or “Hi Prof. Wong”
- briefly explain your question, concern or request
- end with a proper salutation that includes your full name, netid, and SBU ID number

- **PIAZZA**

PIAZZA is a forum for additional learning and assistance. It is not the place for cyber-bullying, memes, grade complaints, concerns/comments/criticisms about the course, or in general, anything unrelated to the course material and your learning.

Additional inappropriate uses of PIAZZA include:

- posting more than a few lines of source code from your attempt at a homework.
- posting your solution to a homework or a link to a website containing the solution.

Students are expected to use the PIAZZA forum for all non-personal course-related communication. If you have questions about programming assignments, technical problems that need troubleshooting, or other questions that might be of interest to other students, they must be posted to PIAZZA and not emailed to the instructor or TA.

If code is relevant to your piazza question you may post snippets, but do so in a private post in PIAZZA to the “Instructors Only”. Posts must include what you have done so far to find the bug, specific cases when the issue occurs, etc.

Email your instructor directly in the following circumstances:

- If Blackboard is not properly displaying your grades.

- If you cannot come to office hours and need to set up an appointment to meet at another time in this case you must include your availability for the upcoming week.
- If you have need to contact the instructor or TA about a private matter. Examples include:
 - * Making arrangements for disability accommodations.
 - * To discuss private, personal matters that are impacting your coursework such as physical or mental illness, death in the family, etc.
 - * If the instructor asks you to email them something relating to a previous conversation.

Academic Honesty Policy:

You may discuss the practice problems with anyone you like, however each students' assignment (including coding) which they submit must be their own work, and only their own work. Any evidence that source code or solutions have been copied, shared, or transmitted in any way (this includes using source code downloaded from the Internet or written by others in previous semesters!) will be regarded as evidence of academic dishonesty. The College of Engineering and Applied Sciences regards academic dishonesty as a very serious matter, and provides for substantial penalties in such cases, such as receiving an 'F' grade, or expulsion from the University. For more information, obtain a copy of the CEAS guidelines on academic dishonesty from the CEAS office.

All examinations will be closed-notes and closed-book. No electronic devices of any kind will be permitted to be used during exams. All cell phones must be silenced or turned off during exams. Any use of electronic devices, textbooks, notes or any other materials will constitute cheating.

Be advised that any evidence of academic dishonesty will be treated with utmost seriousness. Those involved will be prosecuted to the fullest extent permitted by the University and College laws. Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website.

Students with Disabilities:

If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge that you contact the staff in the Disability Support Services office (DSS), ECC Building (behind SAC), 632-6748/TDD. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to their and search Fire Safety and Evacuation and Disabilities.

Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.