

Syllabus for COMP251, Computer Organization and Architecture

Fall 2016
Dickinson College
Instructor: John MacCormick

Goals

- Gain an understanding of the aspects of computer hardware that are most important for effective **computer programming**
- Gain an understanding of the aspects of computer hardware needed for studying computer **networks** and **operating systems**
- Improve **technical writing skills** i.e. the ability to convey technical information effectively and accurately via written communication
- **Have fun** writing computer programs and playing with some simulation tools

Teaching methods

- **readings** from the textbook, required before class
- **lectures** and class **discussions** covering the content of each reading assignment
- in-class **activities** and **experiments** in the majority of class sessions
- **writing projects** to work on technical writing skills, including peer-review

When and where

- Classes: Monday and Thursday 1:30-2:45pm, Tome 118
- Office hours: please see the instructor's webpage

Book

- Linda Null and Julia Lobur. The Essentials of Computer Organization and Architecture (Fourth Edition). Jones & Bartlett, 2014. Earlier editions are permissible, but it is the student's responsibility to check compatibility of section numbers, page numbers, and exercise numbers.

Assessment and grading

- Final grade will comprise:

final cumulative exam	30%
in-class exams (2 x 15% each)	30%
homework assignments (approx. 10)	20%
writing assignments	20%

- **Homework assignments:** Homework assignments are due at the start of class on the dates specified on the class schedule. Unless otherwise stated, homework

assignments must be submitted in hard copy. **Questions must be numbered very clearly, so that the instructor can quickly and easily find any given question. Assignments without clear question numbers will be rejected.** Neatly handwritten solutions are acceptable, except where stated otherwise. The weighting of homework assignments is not equal; the weight of a homework assignment will be proportional to the total number of points of the questions graded on that assignment. Only a random subset of homework questions will be graded. Some will be graded on correctness and some on completeness only. In all cases, it is the responsibility of the student to consult the provided solutions and understand the correct approach to every question, whether or not it was graded. The final homework score may include other components as announced in class, such as quizzes and Moodle assignments.

- **Writing assignments:** There will be several writing assignments due at the start of class on the dates specified in the class schedule. As COMP251 partially fulfills the Dickinson College writing requirement, these projects will focus on the ability to clearly and effectively communicate technical information.
- **Midterm exams:** There will be two 75-minute midterm exams, in class on 10/10 and 11/17.
- **Final exam:** The final exam will take place 2pm-5pm on Thursday, December 15.
- The midterm and final exams are open note. Students may consult any printed or handwritten materials brought into the exam and any static content stored locally on the student's own device or on a Dickinson College server. Web searches are not permitted. No content stored outside the College network may be consulted. Electronic devices may only be used for browsing static content (i.e. devices may not be used to perform any other type of computation), unless specifically permitted in the exam instructions.
- Final scores will be converted to grades according to the following thresholds (or possibly more generous thresholds): 93%=A; 90%=A-; 87%=B+; 83%=B; ... ; 60%=D-.

Amount of work

College policy recommends approximately 3 hours of independent work for every hour of class time. Our class meets for 2.5 hours per week. Therefore, you should expect to spend 7-9 hours per week (outside of class time) on this course.

Plagiarism, copying, and collaborating

The College's standard policy on plagiarism applies and you should be familiar with it, but here are some key points that apply particularly to this course:

- All work must be your own.
- Never copy work from someone else or allow your own work to be copied.
- You may not copy or consult assignment solutions from any source, including online repositories or solutions provided for previous instances of the course. Exception: you may consult solutions provided for this instance of the course, after they have been posted to Moodle.
- If you use exact words taken from any source, you must use quotation marks and cite the source.

- Students are encouraged to help each other understand concepts, including concepts that apply to homework assignments. However, all work must still be your own. So if you discuss a problem with someone, you must destroy any written or electronic material that results from the discussion, and re-create it later on your own.
- Be especially careful not to copy computer code from another student, or from the Internet (unless an assignment question specifically states that it is permitted – and even then, state the origin of any copied code clearly using a comment in your source code). Sharing or copying computer code is easy and often tempting, but it is not permitted and will suffer the same penalties as any other form of cheating.

Accommodations

The instructor will follow college policy on [accommodations](#) for students who need them.

Late Work Policy

Each student is permitted a total of four no-penalty days of lateness over the entire semester; every subsequent day of lateness incurs a 25% penalty for the late assignment. Late days can be used only in whole day units. To use one or more late days on a given assignment, state clearly at the start of your submission how many days you are using, and the total used so far in the semester.