

# Syllabus for COMP251, Computer Organization and Architecture

Fall 2008  
Dickinson College  
Instructor: John MacCormick

## Goals

- Gain a **deep** understanding of the aspects of computer hardware that are most important for effective **computer programming**
- Gain a **moderate** understanding of the aspects of computer hardware that are important for **purchasing, configuring, and maintaining computer systems**
- Achieve a high level of **technical writing skills**
- **Have fun** writing computer programs and playing with some cool simulation tools

## Teaching methods

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

## When and where

- Classes: Monday and Thursday 3pm-4:15pm, Tome 231
- Office hours: Thursday 9-11am, Friday 2-3pm, Tome 241

## Book

- Linda Null and Julia Lobur. The Essentials of Computer Organization And Architecture (Second Edition). Jones & Bartlett, 2006.

## Assessment and grading

- Final grade will comprise:

final cumulative exam	20%
in-class exams (2 x 10% each)	20%
review exercises	10%
homework exercises	20%
writing projects (3 x 10% each)	30%

- All exams will be open book. You may use any printed or written materials you wish during the exams, but you may not use computers, calculators or electronic materials unless authorized by the instructor.
- **In-class exams:** There will be 2 in-class exams on October 9 and November 13. Each will be 75 minutes in length, and will cover material from the preceding lectures (see the course schedule for details).
- **Final exam:** There will be a final exam at 9 a.m. on December 13. It will be three hours in length, and will cover the entire course.
- **Reading assignments:**
  - Most classes have an associated reading assignment that must be completed before the start of class.
  - Each reading assignment consists of one or more sections from the textbook, with details given on the course schedule.
  - To complete a reading assignment, you must read the assigned material, and have a moderate understanding of the major concepts (without necessarily grasping all details).
  - If you cannot attain understanding of a major concept in the reading assignment, you must prepare a written question whose answer would give you that understanding, and submit it with the review exercises for this assignment (see below).
- **Review exercises:**
  - Associated with each reading assignment is a set of “review exercises”, listed on the class schedule. These review exercises are a subset of the textbook’s “review of essential terms and concepts” which appears at the end of each chapter.
  - Brief, handwritten answers to the assigned review exercises must be submitted at the start of the class on which the material will be covered.
  - In addition, as stated above, you must write a question covering each major concept in the reading assignment that you could not understand, and submit it with the review exercises.
  - Grading of review exercises will be largely on an honor system. Students will record the fact that their review exercises are complete on a sheet provided at the start of each class.
- **Homework assignments:**
  - There will be five homework assignments due at the start of class on 9/4, 9/25, 10/16, 11/6, and 12/1 respectively. The class schedule details homework exercises associated with each class. These homework exercises are drawn from the “exercises” section at the end of each chapter of the textbook.

- Each homework assignment consists of the exercises assigned for all classes preceding the due date of the assignment (excluding exercises from earlier homework assignments, of course).
- Homework solutions may be handwritten, but the instructor may insist on typewritten solutions from students whose work is difficult to read.
- Most, but not necessarily all, homework exercises will be graded.
- **Writing projects:**
  - There will be three writing projects due at the start of class on 9/18, 10/2, and 10/30 respectively.
  - Writing projects will be 3–5 pages in length.
  - As COMP251 partially fulfills the Dickinson College writing requirement, these projects will focus on the ability to clearly and effectively communicate technical information. Further details will be provided when the projects are assigned.
  - Projects will also include a practical programming or computer architecture component, but grading will focus primarily on writing skills.

## **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 reading, homework assignments and projects.

## **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.
- If you use exact words taken from the textbook or any other source, you must use quotation marks and cite the source. This applies to all work, including seemingly informal assignments such as review exercises.
- Students are encouraged to help each other understand concepts, including concepts that apply to homework exercises. However, all work must still be your own. So if you discuss a homework exercise 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 any other source, including the Internet. 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 three 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. Late days cannot be used for review exercises.