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## 15-213 Introduction to Computer Systems: Exams

- There are two proctored online exams: a midterm and a final.
- All exams are **closed book, closed notes**.
- However, you may bring **one (1) double-sided 8 1/2 x 11 sheet of notes**, which can be handwritten or typed, to the midterm, and you may bring **two (2) double-sided 8 1/2 x 11 sheets of notes** to the final.
- **Your note sheet may not contain any pre-worked problems and must be in English.**
- You may also bring blank scratch paper, but you are not permitted to use a calculator or any other electronic aid.
- There will be questions similar to previous exams, questions that will test your understanding of the lab material, and new types of questions.

### Final Exam: 10am to 10pm, Mon Dec 14 to Thu Dec 17

- The final will be delivered online over a span of 4 days in a set of proctored network-isolated clusters on the Pittsburgh campus.
  - If you are on the Pittsburgh campus, then please [sign up here to reserve your exam time slot](#). SV students will be taking a proctored paper exam on the the SV campus and should **not** sign up for a time slot.
  - On the day of the exam, please report to GHC 5207 30 minutes ahead of your starting time. The TAs there will then direct you to your assigned cluster.
  - Once you are at your assigned cluster, the TAs will check your reservation and your student ID, and give you your password that will allow you login to the exam server.
  - The nominal time for the exam is two hours, but students will have 6 hours to complete the exam if they need the extra time. However, if you need extra time, please be sure to sign up for a slot with enough time left in the exam window.
  - You are responsible for everything in **Chapters 1-3 and Chapters 6-12** in your textbook. You can expect questions on topics such as, but not limited to, floating point, assembly, stacks, caches, VM address translation, process control, Unix I/O, concurrency, and synchronization.
  - To study, read each chapter three times, work the practice problems, and do problems from previous exams:
    - [Fall 2012 \(model solution\)](#)
    - [Fall 2011 \(model solution\)](#)
    - [Spring 2011 \(model solution\)](#)
    - [Fall 2010 \(model solution\)](#)
    - [Fall 2009 \(model solution\)](#)
    - [Spring 2009 \(model solution\)](#)
    - [Spring 2008 \(model solution\)](#)
    - [Fall 2007 \(model solution\)](#)
    - [Spring 2007 \(model solution\)](#)
    - [Fall 2006 \(model solution\)](#)
    - [Spring 2006 \(model solution\)](#)
    - [Fall 2005 \(model solution\)](#)
    - [Spring 2005 \(model solution\)](#)
    - [Fall 2004 \(model solution\)](#)
    - [Spring 2004 \(model solution\)](#)
    - [Fall 2003 \(model solution\)](#)
    - [Fall 2002 \(model solution\)](#)
    - [Spring 2002 \(model solution\)](#)
    - [Fall 2001 \(model solution\)](#)

**Midterm Exam - Tue Oct 20 to Fri Oct 23**

- The midterm will be delivered online over a span of 4 days, Tue 10/20 to Fri 10/23, in a set of proctored network-isolated clusters.
- On the day of the exam, please report to GHC 5207 30 minutes ahead of your starting time. The TAs there will then direct you to your assigned cluster.
- Once you are at your assigned cluster, the TAs will check your student ID and give you your password that will allow you login to the exam server.
- The nominal time for the exam is 80-90 minutes, but students will have 4 hours to complete the exam if they need the extra time.
- You are responsible for everything in **Chapters 1-3 and Chapter 6** in your textbook.
- Your TAs will hold an exam review during recitation on Monday, Oct 19.
- To study, read each chapter three times, **work the practice problems, and do problems from previous exams**. Note that in previous years, Chapter 6 (memory hierarchy) was covered by Exam 2:

## Exam 1:

- [Fall 2012 \(model solution\)](#)
- [Fall 2011 \(model solution\)](#)
- Spring 2011 [v1 v2 \(model solution v1\)](#) ([model solution v2](#))
- [Fall 2010 \(model solution\)](#)
- [Spring 2010 \(model solution\)](#)
- [Fall 2009 v1 \(model solution v1\)](#)
- [Spring 2009 v1 \(model solution v1\)](#)
- [Fall 2008 v1 \(model solution v1\)](#)
- [Spring 2008 \(model solution\)](#)
- [Spring 2007 \(model solution\)](#)
- [Fall 2006 \(model solution\)](#)
- [Spring 2006 \(model solution\)](#)
- [Fall 2005 \(model solution\)](#)
- [Spring 2005 \(model solution\)](#)
- [Fall 2004 \(model solution\)](#)
- [Spring 2004 \(model solution\)](#)
- [Fall 2003 \(model solution\)](#)
- [Spring 2003 \(model solution\)](#)
- [Fall 2002 \(model solution\)](#)
- [Spring 2002 \(model solution\)](#)
- [Fall 2001 \(model solution\)](#)

## Exam 2:

- Spring 2011 [v1 v2 \(model solution v1\)](#) ([model solution v2](#))
- [Fall 2010 \(model solution\)](#)
- [Fall 2009 v1 \(model solution v1\)](#)
- [Spring 2009 v1 \(model solution v1\)](#),
- [Fall 2008 v1 \(model solution v1\)](#)
- [Spring 2008 \(model solution\)](#)
- [Spring 2007 \(model solution\)](#)
- [Fall 2006 \(model solution\)](#)
- [Spring 2006 \(model solution\)](#)
- [Fall 2005 \(model solution\)](#)
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- [Spring 2003 \(model solution\)](#)
- [Fall 2002 \(model solution\)](#)
- [Spring 2002 \(model solution\)](#)
- [Fall 2001 \(model solution\)](#)

