

# CS 3100 – Models of Computation – Fall 2011

## Grade Lookup Frequently Asked Questions (FAQ) and their answers

### 1 Reference Materials

The course is based on my lecture notes. You will also find an excellent set of notes courtesy of Dr. Konrad Slind at <http://www.eng.utah.edu/~cs3100> that gives crystal-clear explanations of many theoretical concepts.

### 2 General Course Info

- **Email Subscription:** Please send your name and preferred email address to [teach-cs3100@eng.utah.edu](mailto:teach-cs3100@eng.utah.edu).
- **Class Website:** <http://www.eng.utah.edu/~cs3100>
- **Class Room:** WEB L 101
- **Lecture Hours:** TH 10:45 to 12:05
- **Instructor:** Ganesh Gopalakrishnan
- **Instructor Email:** [teach-cs3100@list.eng.utah.edu](mailto:teach-cs3100@list.eng.utah.edu)
- **Instructor Office Hours:** Mon : 11:00am to 12:15pm and Tue : 12:30pm to 2:00pm
- **Instructor Office Location:** 3428 MEB
- **TA Emails:** [teach-cs3100@list.eng.utah.edu](mailto:teach-cs3100@list.eng.utah.edu)
- **TA Office Location:** 3419 MEB
- **TA Office Hours:**
  - *TA1:*
    - \* Peng Lee (“Peter”), [peterlee@cs.utah.edu](mailto:peterlee@cs.utah.edu)
    - \* Office Hours: Mon 9:30-10:45 and Wed 9:30-11:00
  - *TA2:*
    - \* Akram Daruki (“Samira”), [akram.daruki@utah.edu](mailto:akram.daruki@utah.edu)
    - \* Office Hours: 9:15-10:30 on Thu and 2:15-3:45 on Fri (beginning 9/9/11)

### 3 HANDOUTS AND WEEKLY SCHEDULE

- Week1
  - 8/23 L1: Introduction to the course – [notes1\[.pdf\]](#) [.tex] – [asg1\[.pdf\]](#) [.tex] – [asg1soln\[.pdf\]](#) [.tex] – [l1slides\[.pdf\]](#) [.tex]  
– TerminalSessionL1.txt
  - 8/25 L2: Functional Programming in Python + **Strings, Languages** – [notes2\[.pdf\]](#) [.tex] – [l2slides\[.pdf\]](#) [.tex]
- Week2
  - 8/30 L3: Language, DFAs – [asg2\[.pdf\]](#) [.tex] – [asg2soln\[.pdf\]](#) [.tex] – [notes3\[.pdf\]](#) [.tex] – [network-flow-regex-article.pdf](#)  
– TerminalSessionL3.txt
  - 9/1 L4: More DFAs
- Week3
  - 9/6 L5: More DFA – [asg3\[.pdf\]](#) [.tex] – [asg3soln\[.pdf\]](#) [.tex] – [notes5\[.pdf\]](#) [.tex]
  - 9/8 L6: More DFA, and basics of NFA and Regular Expressions.

- Week4
  - 9/13 L7: Notes on NFA – notes7[.pdf] [.tex]
  - 9/8 L8: Assignment 4 posted – asg4[.pdf] [.tex] – asg4soln[.pdf] [.tex]
- Week5
  - 9/20 L9: Kleene-star of NFA – notes9[.pdf] [.tex]
  - 9/22 L10: Assignment 5 posted – asg5[.pdf] [.tex] – asg5soln[.pdf] [.tex]
- Week6
  - 9/27 L11: Arrears from previous lecture notes (union, intersection, etc.). **Also see notes now.** – notes11[.pdf]
  - 9/29 L12: Assignment 6 posted. – asg6[.pdf] [.tex]
- Week7
  - 10/4 L13: Discussed sample problems – notes13[.pdf] – [.tex]
  - 10/6 L14: Midterm-1, in class. SOLUTIONS.
  - [asg7.pdf] [.tex]
  - ply-3.4 directory. You'll find calc.py in this tree under examples
- asg7-L.tar.gz
- Week8
  - 10/18 L15:
    - \* Pumping Lemma for regular languages.
    - \* Practice problems
    - \* Begin reading:
      - Material on the Pumping Lemma [notes15a.pdf]
      - Material on Context-Free Languages and Context-Free Grammars. [notes15.pdf]
    - \* pyc.tar.gz: pyc.tar.gz
    - \* pyc-mac.tar.gz: pyc-mac.tar.gz
  - 10/20: L16: [MORE NOTES + asg8.pdf] [.tex] covering the Pumping Lemma.
    - \* Notes on the Pumping Lemma (excerpts from my book) are HERE.
  - [asg8soln.pdf] [.tex].
- Week9
  - 10/25 L17: Refer back to notes15.pdf. I've kept many illustrations of concepts online. Here are the files:
    - \* Example of Lexer - lexerex.py
    - \* Example of an integer calculator - calc.py
    - \* Changed integer calculator to deal with floats (now broken too; can't do ints!) - fcalc.py
    - \* Broke the precedence/associativity - brokencalc.py
    - \* Fixing using Yacc specification of associativity/precedence - fix1brokencalc.py
    - \* Fixing by layering the grammar - fix2brokencalc.py
  - 10/27 L18: Introduce PDAs.
    - \* Notes on Push-down Automata
    - \* Lecture notes 18 [.pdf][.tex]
    - \* Some JFLAP files kept for your convenience:
      - aEQbORbEQcCFG.jff: the CFG for the language aEQbORbEQc
      - aEQbORbEQcWRong.jff: Incorrect PDA for this language
      - aEQbORbEQcFixed.jff: Corrected PDA for this language

- CFG2PDAONaEQbORbEQc.jff: Converting the CFG of this language to a PDA
- Week10
  - 11/1 L19: **Asg-7 is due.**
    - \* notes19.pdf
  - 11/3 L20: Assignment on PDAs, CFGs, and conversions. Project proposal. Quiz.
    - \* asg9.pdf
    - \* **asg9soln.pdf**
    - \* project-proposal.pdf
- Week11
  - 11/8 L21: DTMs, NDTMs
    - \* notes21.pdf
    - \* pcnotes.pdf
    - \* DTM in JFLAP format for w\_pound\_w
    - \* NDTM in JFLAP format for ww\_ndtm
    - \* Ling Zhao's PCP Solver from Univ of Alberta, 2003
    - \* Notes on BDDs, including solving Lewis Carroll's Puzzles
  - 11/10 L22:
    - \* notes22.pdf
    - \* practice-mt2.pdf
- Week12
  - 11/15 L23: Review for the second midterm.
  - 11/17 L24: Second Midterm Exam solutions are [HERE](#)
- Week13
  - 11/22 L25:
    - \* notes25.pdf
    - \* asg10.pdf
    - \* **asg10soln.pdf**
  - 11/24 No Class - Thanksgiving.
- Week14
  - 11/29 L26:
    - \* notes26.pdf
    - \* Tyler's BDD Package in Python (tgz)
    - \* DFA to predict epileptic seizures.pdf
  - 12/1 L27:
    - \* asg11.pdf
    - \* **asg11soln.pdf**
    - \* notes27.pdf
    - \* bddchapter.pdf
    - \* Notes on BDDs, including solving Lewis Carroll's Puzzles
- Week15
  - 12/6 L28: Refer to the BDD notes posted under L27.
  - 12/8 L29:
    - \* practice-finals.pdf
    - \* The final exam with answer-sketches.
- 12/10 Classes end
- 12/16 FINAL EXAM - 10:30 to 12:30 in class

## 4 Assignments, Exams, Grading

This class will have two midterm exams and a final exam—all closed book. The weightages are:

- PARTICIPATION: 5% (mainly through roll-call - sheet to circulate each day - but also through extra-ordinary creativity and/or class participation)
- Assignments: 45% (all assignments weighed equally). **Two of your lowest assignment scores (after normalizing all assignments) will be dropped.**
- MIDTERM EXAM #1 and MIDTERM EXAM #2: 30% (15 % each)
- FINAL EXAM: 20%
  - 10% is for a final group project
  - 10% is for an in-class final exam (will examine your own project)

The midterms will emphasize portions covered since the previous midterm (or the beginning of the course, in case of the first midterm). The final exam will emphasize portions covered after the second midterm. *The final exam will also include higher level questions covering the whole course.*

### HANDIN Info

To hand-in assignments electronically use the 'handin' utility available in the CADE lab. Type:

```
handin cs3100 asg1 <files>
```

where <files> are the files to be submitted. `handin cs3100` will list the assignments available for hand-in.

WebHandin can also be used: See <https://webhandin.eng.utah.edu/>

### EXAM AND BREAK SCHEDULES

The exams and breaks are as follows:

**Midterm Exam #1: 10/6 During class time** – subject to change with sufficient notice

**TGIFB (Thank God It's Fall Break): Monday 10/10 - Saturday 10/15**

**Midterm Exam #2: 11/17 During class time** – subject to change with sufficient notice

**Final Exam:** 12/16 in class 10:30 to 12:30, as per schedule posted at

<http://www.sa.utah.edu/regist/calendar/finals/finExamSch.htm>

### GRADE CALCULATION

After determining your individual scores, we will divide the class scores into groups based on percentage scores. Here is how the final grades will be assigned: 90th percent and above : A; 83-89 : A-; 78-82 : B+; 75-77 : B; 72-74 : B-; 68-71 : C+; 65-67 : C; 62-64 : C-; 58-61 : D+; 55-57 : D; 52-54 : D-; and Below 52 : E.

### ASSIGNMENTS AND LATE POLICY

We will not be handing out hardcopy assignments or course notes; they'll all be posted. *All assignments will be due through handin by midnight of the due date.*

- Normal submission: No penalty. For assignment `asg5`, the submissions must go into the handin directory `asg5`, and similarly for all other assignment numbers.
- Up to one day late : 20% off. **Files must be submitted in `asg5L1`**, taking `asg5` as an example.
- Less than four days late : 40% off. **Files must be submitted in `asg5L4`**, taking `asg5` as an example.
- More than four days late : most of the points off. **Files must be submitted in `asg5L5`**, taking `asg5` as an example. *We won't be grading these, except at the end of the semester when your grade happens to be borderline, and these submissions may justify pushing you up.*

The TAs will be assigning you a pass-code using which you can look up your grades. They will be sending you a website URL at which the grades will be available for lookup.

## **ASSIGNMENTS AND ORIGINAL SUBMISSIONS**

High level discussions are OK but please do not offer detailed help (unless you seek our permission). Non-original solutions constitute cheating; if it occurs, we will follow University of Utah policies pertaining to academic dishonesty.

## **5 Students with Disabilities**

Reasonable accommodation will gladly be provided to the known disabilities of students in the class. Please let the instructor know the situation as soon as possible. If you wish to qualify for exemptions under the Americans with Disabilities Act (ADA), you should also notify the Center for Disabled Students Services, 160 Union Building.