COM S 330 Discrete Computational Structures Spring 2015

Course Topics: Concepts in discrete mathematics as applied to computer science. Logic, proof techniques, set theory, relations, graphs, combinatorics, discrete probability and number theory.

Class Meeting Time & Place: MWF: 1:10–2:00pm, Horticulture Hall 0118.

Recitation Time & Place: (S1) R 10:00–10:50am, Carver 018. (S2) R 2:10–3:00pm, Carver 204.

Instructor: Derrick Stolee TAs: Zhenbi Hu Peter Dixon dstolee@iastate.edu E-mail: TA E-mail: zhenbihu@iastate.edu tooplark@iastate.edu TA Office: Office: 416 Carver 0145 Pearson 0145 Pearson 11:00am-12:30pm MW **TA Hours:** TBD Office Hours: TBD (or by appointment) Homepage: http://www.math.iastate.edu/dstolee/teaching/15-330/

Suggested Books:

- Discrete Mathematics and its Applications (7th Edition) by Ken Rosen.
- Mathematics for Computer Science by Eric Lehman, F. Thomson Leighton, and Albert R. Meyer. (Free download)
- Discrete Mathematics with Ducks by Sarah-Marie Belcastro. (Optional)

Prerequisites: (i) Math 166, (ii) English 250, (iii) Com S 228.

All undergraduates will need to have these three pre-requisites before they can take Com S 330. In addition, Computer Science undergraduates will need to have at least a C- in these courses. Graduate students may have some or all of these courses waived at the discretion of the instructor, if they can show proof of having taken the equivalent courses elsewhere.

Homework: Weekly homework assignments that are due at 11:59pm on Thursdays when the recitations meet (including week 1 and week 15). One homework problem will be completed during each recitation session. The lowest two homework scores will be dropped from the semester total. **Exams:** There will be three in-class exams and one final exam. All exams are located in the regular lecture room. The dates are as follows:

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Exam 1: Feb. 13th, 1:10–2:00pm. Exam 2: Mar. 13th, 1:10–2:00pm. Exam 3: Apr. 17th, 1:10–2:00pm. Final Exam: Wednesday, May 6, 2:15–4:15pm.
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Grading: The course grade will be based on weekly homework (15% total), three in-class exams (20% each) and the final exam (25%). Your final exam score can replace your lowest in-class exam score (and hence no make-up exams will be allowed).

The overall letter grade for the course is assigned based on the weighted total score, and a curve decided at the end of the semester. The classic ten-point scale gives you a lower bound on your grade: if your overall score is 0.90 or above, then you are guaranteed a grade of A- or higher; if your overall score is 0.80 or above, then you are guaranteed a grade of B- or higher; etc. Historically, letter grades have been shifted in favor of the students.

Late Policy: Items turned in within 24 hours of due date will receive 75% credit. Items turned in within 24 and 48 hours will receive 50% credit. Items turned in later than 48 hours after the deadline will receive no credit.

University Policies

Academic Dishonesty The class will follow Iowa State University's policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/academic/misconduct.html

Disability Accommodation Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu . Retroactive requests for accommodations will not be honored.

Dead Week This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook http://www.provost.iastate.edu/resources/faculty-handbook.

Harassment and Discrimination Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.

Religious Accommodation If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

Contact Information If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.