

IINF 723: Information and Computing

Fall 2015 – Mondays 9:20am—11:20am, BB 356

Instructor

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Office hours: By appointment

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Course Description

Development of theories and concepts that underlie the operation of information processing and retrieval systems; consequences derived from these theories that should be considered in designing such systems; theoretical foundations of information and computation; technologies and application areas.

Learning Goals for Students: Students who complete this course will be able to

- Develop fundamental understanding of information and computing
- Develop abstract models for and design algorithms to solve problems
- Analyze algorithmic solutions in terms of time and space complexity
- Comprehend and learn from research in various Informatics and Computing areas

Schedule of the Course and Readings

This class relies heavily on research papers and book chapters that are either freely available online or are accessible using the university's network.

A schedule of the course including the readings and assignments is posted on Blackboard. Please note that the schedule is tentative and will be regularly updated during the semester. It is your responsibility to regularly check the schedule.

Course Requirements

Readiness Assurance Test (RAT): At the beginning of each unit of study, you will take a short test to assess your comprehension of the assigned readings. You will take each RAT twice: once as individual and once as a team. Your individual and team scores will be averaged to create your final score on each RAT.

In-Class Activities: A major component of your participation in the course will be involvement in class activities and discussions which will be occasionally graded.

Homework Assignments: You will be assigned to solve problem sets related to the topics covered in the class and provide summaries of the research papers that you read. You will be also assigned to prepare for and present papers in the class.

Peer Review/Evaluation: As you are earning your PhD, you will be expected to be able to evaluate the work of your peers and provide constructive feedback. As part of your assignments in this course, you will regularly perform peer evaluation using CrowdGrader software accessible at <http://www.crowdgrader.org/>.

Final Research Paper: You will propose and work on an individual course project throughout the semester. You should write a final paper in the form of a research paper that you would send for publication to a journal. You will also present your research to the class.

Course Policies

Tardiness: If you need to arrive late or leave early and thereby miss part or all of an in-class assignment, you will receive no credit for the assignment, neither for individual work nor for the work of your team in your absence. If you know that it will be difficult for you to consistently get to class on time and stay for the entire period, you should take this course at a time that better fits your schedule. Being late frequently will guarantee a low grade for the course.

Make-up Policy: There are generally no make-up opportunities for missed assignments except in extenuating circumstances. Since there will be occasions in your life when missing a class meeting or missing a deadline for an assignment is simply unavoidable, this course has a few built-in safety valve.

Safety Valve 1: Your lowest RAT score will be dropped from the calculation of your average.

Safety Valve 2: The average of the best 90% of your in-class activities will count towards your grade.

Safety Valve 3: The average of the best 90% of your paper summary scores will count towards your grade.

Safety Valve 4: If you become seriously ill during the semester, or become derailed by unforeseeable life problems, and have to miss so many assignments that it will ruin your grade, schedule a meeting with me in order to make arrangements for you to drop the course to save your grade point average. Do not wait until it is too late to see me when you get in trouble.

Academic Integrity: *It is every student's responsibility to become familiar with the standards of academic integrity at the University. Claims of ignorance, of unintentional error, or of academic or personal pressures are not sufficient reasons for violations of academic integrity. See http://www.albany.edu/studentconduct/standards_of_academic_integrity.php*

Any incident of academic dishonesty can result in i) no credit for the affected assignment, ii) report to the PhD Director and the Dean of Graduate Studies, and iii) a failing grade (E) for the course.

For all assignments and papers, make sure to do your own work, except where collaboration is explicitly permitted or required. Also, make sure that you properly cite any resource from which you borrow ideas and you clearly distinguish them from your contributions.

Students with Disabilities: Reasonable accommodation will be provided for students with documented physical, sensory, cognitive, learning and psychiatric disorders. If you believe you have a disability requiring accommodation in this class, please notify the Director of Disability Resource Center (BA 120, 518-442-5490). That office will provide the course instructor with verification of your disability, and will recommend appropriate accommodations. In general, it is the student's responsibility to contact the instructor at least one week before the relevant assignment to make arrangements.

Grading

Your final course grade will be composed of the following elements:

- Readiness Assurance Tests: 8%
- In-Class Activities: 12%
- Homework Assignments: 30%
- Final Paper: 45%
- Class Participation/Team Member Performance: 5%

Your letter grade will be calculated according to the following scale:

93% – 100% = A	90% – 92% = A-	87% – 89% = B+	83% – 86% = B	80% – 82% = B-	77% – 79% = C+
73% – 76% = C	70% – 72% = C-	67% – 69% = D+	63% – 66% = D	60% – 62% = D-	0% – 59% = E