Policy for AMSC 698D/CMSC 858R/MATH 608
Ramsey Theory and its "Applications"
`http://www/cs.umd.edu/~gasarch/858/S13/S13.html`

Overview: Ramsey Theory is a branch of combinatorics having to do with colorings and patterns. Here is a sample theorem: *for all 2-colorings of the natural numbers there exists arbitrarily long monochromatic arithmetic sequences (arithmetic sequences are equally spaced, like 11,14,17,20,23,27)*. In this course we state and prove many such theorems and also "apply" them. See CONTENT part of syllabus for more info.

GRADING: There will be (roughly) weekly HW, one midterm, one final, and a project. HW is worth 25%, the midterm is worth 25%, and Final is worth 30%, and the project is worth 20%. (See PROJECT part of syll for info on project.) *MIDTERM:* Mar 27, 6-7:30PM in CSI 3117. If you cannot make this tell me by *Feb 5, 2013. FINAL:* May 16, 4-6, same room as class. For HW, Midterm, Final, project you must hand in your own work. HW must be *neatly* written. You will lose points for sloppiness. (Exception: The projects can be done in teams of 2 or 3. Exception: I may make some of the HW team HWs.) I say 'roughly' HW 25% etc since I don't know how many HWs I will be handing out. They will be 4 percent each and that should be closeto 25, but even that I may end up changing.

HW, Mid, Final Excuse Policy: The HW will typically be DUE on Tues. However, you can hand it in two days later on Thur. I regard this as having given you a 2-day extension. So if you are sick (without doctors note) or have a personal crisis or whatever then you do indeed get an extension from Tue to Thur. Any other extension will be given with documentation (e.g., a doctors note). If you miss an exam and can provide a documented excuse within a day then you will get a makeup. If you know you will not be able to take an exam or do a HW on time ahead of time for Religious or other reasonable reasons, let me know during the first week. HW will be posted, not handed out.

Office Hours and Contact Information Prof Gasarch, AVW 3245, 405-2698, `gasarch@cs.umd.edu`. Off. Hrs: TU-TH: 11:00-12:15, 3:30-4:30, or by apt. There is no TA. The class is REQUIRED to sign up on Piazza and encouraged to use it to ask questions. The main advantage of this is that the answers to your questions are easily available later in the term.

Accommodations: Students requesting academic accommodations due to a disability should make such a request to the instructor in office hours, with a letter of accommodation from the Office of Disability Support Services (DSS) within the first two weeks of the semester.

Course Evaluations In May you will be asked to fill out course evals. I will urge you to fill it out carefully.

Text: There is no text for the course; however, notes and papers will be posted.

Prerequisites: You MUST find this kind of material INTERESTING! You MUST have some mathematical maturity! You MUST be at the level where our Ugrad Discrete Math course (CMSC 250) is TRIVIAL for you! (its okay if it wasn't trivial for you THEN, so long as its trivial for you NOW). More concretely You NEED to have had A course where you proved things. CMSC 451, 452, 456, Any 400-level math course. Feel free to discuss with me if you are prepared. No prior knowledge of combinatorics will be needed. Do not let the big number (858!) scare you.

Laptop Policy: Labtops not allowed in class unless you are taking notes with it.