Course Information for Math 213, Sections F1 and H1, Spring 2021
Basic Discrete Mathematics

Text: K. H. Rosen, Discrete Mathematics and Its Applications, McGraw-Hill Inc., 7th Edition, 2011;
Chapters 2-3 and 5-11 with exception of some sections, see below
Prerequisite: Math 220 or Math 221 or equivalent
Time&Place: 2-2:50pm and 3-3:50pm, MWF, online, see Moodle site at `learn.illinois.edu`
Instructor: Sergei Ivanov, e-mail: `ivanov@illinois.edu`

Topics and Hours (approximately; 3 hours are covered in one week of classes)

Chapters 2-3: Basic Structures (Sects. 2.1-2.3, 3.1-3.2) – 6hrs
Chapter 5: Induction (Sects. 5.1-5.2) – 3hrs
Chapter 6: Counting (Sects. 6.1-6.5) – 6hrs
Chapter 7: Discrete Probability (Sects. 7.1-7.3) – 4hrs
Chapter 8: Advanced Counting (8.1-8.2, 8.5-8.6) – 6hrs
Chapter 9: Relations (Sects. 9.1, 9.5) – 3hrs
Chapter 10: Graphs (Sects. 10.1-10.8) – 6hrs
Chapter 11: Trees (Sects. 11.1-11.2, 11.4) – 2hrs

Exams: Exam 1 will be given after 4 weeks of classes, Exam 2 will be held after 8 weeks of classes, Exam 3 will be held after 12 weeks of classes, specific dates/times will be announced on Moodle. Makeup exams will not be offered. In case of a documented excuse for missing Exam 1–3, the sum of scores of other exams will be prorated, that is, used with a suitable coefficient in grade computation. The Final Exam is cumulative and will cover all topics. The Final Exam date/time will be announced on Moodle.

Grading Policy: 22.5% Homework (max 90pts), 47.25% Exams 1–3 (max 90pts+90pts+9pts; 90% of the lowest score is dropped), and 30.25% Final Exam (121pts). The total max score is 400 points. Those who earn 90+% are guaranteed an A-, those who earn 80+% are guaranteed a B- etc. It is possible that the actual ranges for As, Bs etc will be more generous (this will be the case if exams are hard) since the grade ranges could be stretched according to the average score and to the historic GPA in Math 213.

Coursework Policies: Weekly homework assignments (=HW) will be announced and posted on Moodle. One lowest HW score will be dropped. Late HW is accepted for 1 more day (i.e., 24 hours) after the deadline unless posted otherwise, which is 11:45pm CST on the due date, the late penalty is 25% of max score. To submit HW or Exam, please upload a legible scan of your handwritten solutions to Moodle. Your submission must be a single PDF file uploaded to Moodle. Submissions that do not meet these requirements (e.g., email submissions, illegible submissions etc) will not be graded. You may wish to install the free CamScanner app on your phone to do multi-page PDF scans. It is okay to discuss HW problems (but not Exam problems) with other students but submissions must be individual and identical submissions are not allowed. Academic integrity is taken seriously, for clarifications/procedures see the Student Code
`https://studentcode.illinois.edu/article1/part4/1-401/`

Notes: It is all right to use the electronic version of the textbook.
Homework and exam announcements will be posted on Moodle at `learn.illinois.edu`. To receive full credit for a homework/exam problem you need to show work. Plain answers might not earn credit. We will use Q&A piazza site where you are welcome to ask and/or answer questions any time. There will be a limited number of bonus points awarded to those students who will help in answering questions on piazza.