George Mason University Department of Mathematical Sciences

Discrete Mathematics II, Combinatorics Spring 2018

Course: MATH-325, section 001.

Total Credits: 3.

Purpose: An introduction to combinatorics, including counting techniques, generating functions, some special combinatorial number sequences and selected topics in graph theory.

Prerequisites: Go to: https://catalog.gmu.edu/courses/math/, click on "300 Level Courses" and scroll down to "MATH 325": C or better in MATH 125.

Times and Places: TR 1:30 – 2:45 pm. East Building, room 121.

Period: From January 22. to May 16.

Dates to keep in mind:

January 29: Last day to drop with no tuition liability.

January 29: Last day to add classes.

February 23: Last day to drop with no academic liability.

Professor:

Geir Agnarsson

Exploratory Hall 4412

Phone number: (703) - 993 - 1477

email: geir@math.gmu.edu

Office-hours: TR 2:45 – 3:45 pm, or by appointment.

Required Text: Richard A. Brualdi, *Introductory Combinatorics*, Pearson Prentice Hall, (2010), 5-th edition.

Material: Selected preliminaries, Chapters 2, 3, 4, 5, 6, 7, 8, (parts from 11, 12 if time permits).

Homework: HW will be assigned every week on Thursdays, starting Thursday January 25. They are to be handed in the following Tuesday, in the beginning of the class by 1:30 pm. Together with the homework problems, there will be a collection of additional problems to be discussed in class on Wednesdays, if necessary. The problems to be handed in for grading will be labeled *homework*, and the additional exercises will be labeled as *other*.

WebSite: All handouts for this class will be posted as pdf-files on the class-WebSite: http://math.gmu.edu/~geir/courses/325spring18/. Please check this WebSite on a regular basis, since short announcements and additional info might be posted there as well.

Examinations: There will be one midterm exam (MT) and a final exam (FL). The midterm will cover the material up to that point in lecture, it will be 50 minutes long and take place in the class room. The final will be a two hour cumulative exam also in the class room.

Midterm: Thursday, April 5., 1:30 – 2:20 pm, East 121.

Final: Tuesday, May 15., 1:30 – 3:30 pm, East 121.

Grading: The biggest number of the following:

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1: HW 30\% + MT 30\% + FL 40\%
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2: HW 30% + FL 70%

Policy:

- Absence from an exam, without proper explanation, is an automatic zero on that exam.
- There will be no make-up midterm exam.
- In order to pass the class one MUST TAKE THE FINAL!

Collaboration: Needless to say, collaboration of any kind during an exam (quiz, midterm or final) is cheating. You are to abide by the GMU's Honor Code, see https://oai.gmu.edu/mason-honor-code/

During an exam you are not allowed to help anyone nor receive any help from anyone, except possibly from the exam proctor. You also cannot use any helping device, be it note books, text books, cheat-sheets or programmable calculators, unless otherwise clearly stated on the exam.

HOWEVER, healthy discussion about the homework problems among your classmates is allowed and encouraged! Be sure though, to write your own solutions.

Courtesy: Be courteous to your fellow classmate. During lectures be quiet and please turn off your cellular phones!

Geir Agnarsson January 23, 2018