

**MATH 125-004: Discrete Mathematics**  
**Syllabus, Fall 2017**

**Important days.** No classes on Labor Day (September 9), Columbus Day (October 10) and Thanksgiving (November 22).

**Course objectives.** To introduce basic concepts of discrete mathematics, laying a foundation for further study and applications.

**Prerequisites.** Math Placement Algebra I 13 or Undergraduate level MATH 105 Minimum Grade of C or Undergraduate level MATH 108 Minimum Grade of C or Undergraduate level MATH 113 Minimum Grade of C.

**Textbook.** E.G. Goordaire and M.M. Parmenter, *Discrete Mathematics with Graph Theory*, Third Edition, Prentice-Hall, 2006.

**Material to be covered.** Chapters 0-3, 5-7, 9, 10, and 12 (with some sections omitted).

**Classes.** MW, 1:30 pm–2:45 pm, Robinson Hall, Room B222.

**Instructor.** Dr. Valeriu Soltan. Office: Exploratory Hall, Room 4202. E-mail: [vsoltan@gmu.edu](mailto:vsoltan@gmu.edu)

**Lecture notes and syllabus.** They are available at [http://math.gmu.edu/faculty\\_staff/soltan.htm](http://math.gmu.edu/faculty_staff/soltan.htm)

**Office hours.** MW, 12 noon to 1 pm, or by appointment.

**Homework.** Problems for the homework are given in the course outline (see below). Although these will not be collected, success in test and final exam depend strongly on their completing and understanding.

**Free tutoring.** Free tutoring is available at Math Tutoring Center (Johnson Center, Room 344); for hours of operation, visit <http://math.gmu.edu/tutor-center.php>.

**ODS.** If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services. All academic accommodations must be arranged through this office.

**Tests and exams.** There will be three tests (September 25, October 23, and November 15) and the final exam (December 13, 1:30 pm–4:15 pm).

**Grading.** Tests are 20% each, and final exam is 40% of the total score. Your grade for the course is the sum of scores for all tests and the final exam. There are no grade curving, dropping, etc. Equivalence between scores and letters, recommended by GMU, is given in the table below.

| A+     | A     | A-    | B+    | B     | B-    | C+    | C     | C-    | D     | F    |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 100-97 | 96-94 | 93-90 | 89-87 | 86-84 | 83-80 | 79-77 | 76-74 | 73-70 | 69-60 | 59-0 |

**Attendance and make-ups.** Each student is expected to come to class regularly. No make-ups for tests are allowed unless you provide a serious written excuse. Excused tests should be taken within a timely fashion before the last day of classes.

**Final exam policies.** Final exam may not be given during the last week of classes. If you need to change the date of your final exam for unusual circumstances or because you have three or more finals scheduled in one day, obtain professor's signature on the Change of Final Exam Request form and submit it to Office of Student Success and Academic Services. This must be completed 2 weeks prior to the date of the final exam. Retaking final exams is not permitted.

Absence from final exam will not be excused except for sickness on the day of exam confirmed by physician's note or for other causes approved by the student's academic dean or director. In case of medical emergency on the day of final exam, the student is responsible to decide whether he/she is fit to take the exam or needs to visit a physician. If a student missed the final exam due to illness or a family emergency, an incomplete grade

(IN) may be assigned provided the student took all three midterms with a total score 36 or higher. If absence from final exam is unexcused, the grade for the course is F.

**Academic integrity and university policies.** Mason is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. Other policies are available at <http://universitypolicy.gmu.edu/>. Students are responsible for knowing and following established policies.

### COURSE OUTLINE

| Sections | HW Problems                                    |
|----------|--|
| 0.1      | 1, 3, 5, 7                                     |
| 0.2      | 1, 3, 5, 7, 15, 17, 19, 21, 23, 25, 27, 29, 31 |
| 1.1      | 1, 3, 5, 7, 9                                  |
| 2.1      | 1, 3, 5, 7, 9, 11                              |
| 2.2      | 1, 3, 5, 7, 9, 11, 13, 15                      |
| 2.3      | 1, 3, 5, 9                                     |
| 2.4      | 1, 3, 5, 7, 9, 11                              |
| 2.5      | 1, 3, 5, 13                                    |
| 3.1      | 1, 7, 9, 11, 15, 17, 19, 21, 25, 27, 33        |
| 3.2      | 1, 3, 5, 7, 11, 13, 15, 17, 19, 27             |
| 3.3      | 3, 5, 9, 11, 13, 15, 17, 19, 21, 27            |
| 5.1      | 1, 4, 5, 6, 8                                  |
| 5.2      | 1, 3, 5, 7, 9, 11, 13                          |
| 6.1      | 1, 3, 7, 11                                    |
| 6.2      | 1,3, 5, 7, 9, 11, 13, 15, 17, 21               |
| 6.3      | 1, 3, 5, 7, 9, 11, 13                          |
| 7.1      | 1, 3, 5, 7, 9, 11                              |
| 7.2      | 1, 3, 5, 7, 9, 11, 13                          |
| 7.3      | 1, 3, 5, 9, 11, 13, 19, 25, 27                 |
| 7.7      | 1, 3, 5, 7, 9, 11                              |
| 9.1      | 1, 3   |
| 9.2      | 1, 3, 5, 7, 13, 17, 19, 21                     |
| 9.3      | 1,3, 4, 5                                      |