Math 125–005: Discrete Mathematics I

Fall 2017: TR 4:30pm – 5:45pm, Robinson Hall B202

Instructor: Daniel Anderson
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Office Hours: TR 3:00PM–4:00PM and by appointment.

Text: *Discrete Mathematics with Graph Theory*, Third Edition,
by E.G. Goodaire & M.M. Parmenter

Prerequisites: Minimum score of 13 in 'Math Placement Test Algebra I' or a grade of C or better in one of the following courses: MATH 105, MATH 108, MATH 113.

Course Goals: Introduce the ideas of discrete mathematics, logic, sets, mathematical induction, recursion, counting, permutations, combinations, sets, graphs.

Material: Chapters 1(1.1-1.3), 2(2.1-2.5), 3(3.1-3.3), 4(4.1-4.4), 5(5.1-5.3), 6(6.1-6.3), 7(7.1-7.7), 9(9.1-9.3), 10.1, 12.1-12.3

Midterm Exam: There will be one midterm exam. The midterm exam date listed below is tentative and will be confirmed in class. The midterm exam will be 50 minutes long. Topics will also be confirmed in class as the midterm exam approaches. You are responsible for being aware of any such changes announced in class. *Makeup exams will not be given.*

Ungraded Homework: Problem sets from the sections in the textbook will be assigned regularly. Although these will not be collected, success in this class depends strongly on completing and understanding these problems. Working together on ungraded homework is encouraged but each student is ultimately responsible for understanding the material.

Quizzes: There will be weekly quizzes with some exceptions as will be explained in class. These will be for about the last 10 minutes of Thursday classes. *No makeup quizzes will be given.* If you cannot make it to class when the quiz is given, you will not be able to receive credit for the quiz. Your lowest quiz grade will be dropped.

Grading Policy: *The largest of the following two numbers*
- (Quiz Av) × 20% + (Midterm exam) × 30% + (Final exam) × 50%
- (Quiz Av) × 20% + (Final exam) × 80%

In general, 90%–100% = A, 80%–89% = B, 70%–79% = C, 60%–69% = D, below 60% = F. Plus and minus grades will be approximately 2 or 3 percentage points above or below these boundaries (e.g. 88% would correspond to a B+). I reserve the right to lower the curve, but will not raise the curve.

Important Dates: August 29, first day of class

September 5, last day to add class (or drop w/o tuition penalty)

October 9, Columbus Day Recess (Mon. classes meet Tues., no Tues. classes)

Tuesday, October 24, **Midterm Exam**

November 22–26, Thanksgiving Recess

Thursday, Dec. 7, last day of class

Tuesday, Dec. 19, 4:30pm–6:30pm, **Final Exam**

Final Exam: The final exam will be a two hour, in-class cumulative exam and must be taken at the scheduled time. Exceptions are allowed only with a Dean's permission, by University rules.

Online class information, including assigned homework, will be posted periodically at `http://math.gmu.edu/~dmanders/WEBDAN/math125_fall17.html`

Other Notes: 1. Doing the suggested homework is critically important to success in this class. I expect a MINIMUM of two hours per week in work outside of class for every one hour of class. 2. Please silence cell phones, etc. during class. The interruptions caused by these are distracting and will not be tolerated.

Graded Material Policy: The graded material in this class consists of quizzes and exams. During quizzes and exams you are not allowed to receive assistance by anyone (except possibly the exam proctor). This includes assistance from anyone in class or outside of class. Note that this also means that you are not allowed to provide assistance to anyone during the exam/quiz. You are not allowed to use any helping device such as notes, textbooks, cheat-sheets, calculators, mobile phones, iPads, computers, etc. In particular, mobile phones (and similar devices) must not be accessed at any time during the exam. No such devices will be allowed on your table/desk while taking quizzes and exams. Do not plan to use these for keeping track of time during quizzes or exams.

Honor Code: It is expected that each student in this class will conduct himself or herself within the guidelines of the Honor Code. All academic work should be done with the level of honesty and integrity that this University demands.

Anyone caught cheating during a quiz, exam or on any other material submitted for grade will be sent to the University Honor Committee for formal resolution to the situation. The most likely recommendation given by the professor to the Honor Committee is failure of the class (not just the specific quiz, exam, etc.) if the student is found guilty of violating the Honor Code.