

Math 605-01 Graphs and Algorithms
Mon-Tue-Thu 11:00 – 11:50 AM
Classroom: Wissink Hall 286
My Office: Wissink Hall 263

Professor: Dan Singer
Webpage: <http://mavdisk.mnsu.edu/singed/>
Email: dan.singer@mnsu.edu
Office Hours: 10-11, 1-3 Mon-Tue-Thu-Fri

Course Description: We will study a few selected topics in Graph Theory: Introduction to Graphs, Trees and Connectivity, Digraphs, History and Symmetry, Planar Graphs, Vertex Colorings, and Extremal Graph Theory. Prerequisites: Math 375, 417, and 447.

Textbook: *Graphs and Digraphs, Fifth Edition*, by Chartrand, Lesniak and Zhang, CRC Press, 2011.

Course Format: We will study Chapters 1, 2, 4, 5, 6, 8, and 12 of the textbook according to the schedule which appears at the bottom of this syllabus. I will work through the details of selected theorems in class and solve a few exercises from each chapter section that we cover. Once I have demonstrated how the theorems and proof techniques are used on a few problems, I will ask students to do a selection of the remaining problems and present their solutions in class.

Attendance Policy: Please attend regularly. I would appreciate it if you would send me an email in advance of any unavoidable absences or emergencies.

Homework Policy: Homework must be written up carefully and stapled. I will look over your submissions, make comments as necessary, and award a score on a 0-100 scale. You should interpret a score of 90-100 as an A, a score of 80-89 as a B, etc.

Grade Calculation: Your grade is based on your homework average and class participation.

Grade Policy: Your grade is based on your performance during the fifteen weeks of the regular semester in accordance with the grade calculation above. I will not change any grades after they have been submitted to the Registrar, and I will not consent to extra-credit opportunities designed for the express purpose of raising the grade of one individual. All discussions with me regarding your grade should be limited to how you can study adequately for exams and what scores I have currently recorded for you in my records. Consult the handout “Five Tips for Effective Studying in Mathematics Courses” at the beginning of the semester for advice on studying.

Course Schedule: (Last day we meet is Thursday, December 12, the day the final is scheduled)

<u>Dates</u>	<u>Material</u>	<u>Meetings</u>
08/26 – 09/16	Chapter 1	9
09/17 – 10/03	Chapter 2	8
10/07 – 10/17	Chapter 4	6
10/21 – 10/24	Chapter 5	3
10/28 – 11/12	Chapter 6	8
11/14 – 12/02	Chapter 8	7
12/03 – 12/12	Chapter 12	3