

MATH 4483 – Graph Theory
Section 01, Spring 2016
MWF 9:00 am – 9:52 am 107 Pafford Bldg

Prerequisites: MATH 3003 (Minimum Grade: C)

Instructor: Dr. Rui Xu

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Office hours: MWF 10:00 am- 12:30 pm or by appointment.

Textbook: Graph Theory with Applications, by J. A. Bondy and U.S.R. Murty, Elsevier Science Ltd/North-Holland (June 1976). ISBN-10: 0444194517

Course Description: Introduction to graph theory. Topics include the basics of graph theory, Trees, Connectivity, Euler Tours and Hamilton Cycles, Matching, Edge Colorings, Independent Sets and Cliques; Vertex Colorings and Planar graphs.

Objectives:

- (I) A thorough understanding of the basics of graph theory: degree, path, cycle, tree, bipartite etc.
- (II) An understanding of Connectivity, Euler Tours and Hamilton Cycles.
- (III) An understanding of Matching, Edge Colorings.
- (IV) A thorough introduction to Independent Sets and Cliques.
- (V) A thorough understanding of Vertex Colorings.
- (VI) A thorough understanding of planar graph and its characterization.

Grading Methods: Grades will be assessed based on a total of 580 points (as shown below), using the standard decade scale: (90–100%=A, 80–89%=B, 70–79%=C, 60–69%=D, below 60%=F).

Test 1 Chapter 1, Chapter 2 and Chapter 3	100pts
Test 2 Chapter 4, Chapter 5 and Chapter 6	100pts
Test 3 Chapter 7, Chapter 8 and Chapter 9	100pts
Final	130pts
Homework	130pts
Attendance	20pts
Total	580pts

Homework & Test policy: Homework must be turned in on time. Late homework is not acceptable. Homework may be graded partially or totally. I may grade a specific problem or just look for completeness. I am interested in the solution of problems not just their answers. So you need to show your work in details to get credits. Makeup tests will be granted only for excused absences (scheduled University-approved activity such as field trips, debate trips, choir trips, and athletic contests, or verifiable medical doctor's excuse). In that case, the student should contact the instructor in advance to reschedule the makeup test. If that is impossible, the student must contact the instructor the same day of the test by email or phone to let the instructor know. Failure to do so will result in a zero for that test. All students are required to take the final exam at the scheduled time and no makeup for final exam.

Other Policies:

1. Class attendance will be taken every class day. Tardies and early leaves are not allowed. Two tardies/early leaves are counted as one absence. Students are allowed to miss at most 3 classes to get the full 20 pts for attendance and will lose 5 pts for each additional absence.
2. Cell phones should be set to an inaudible setting.
3. The instructor follows the common university policies as shown on the website below:

http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf

Important Dates:

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| January 11 | : First day of class |
| January 18 | : MLK Holiday (no classes) |
| March 3 | : Last day to withdraw with a grade of W |
| March 14-18 | : Spring Break (no classes) |
| April 22 | : Last Day of Class |
| April 25 (Monday), 8:00-10:30 am | : Final Exam |