

**King Fahd University of Petroleum & Minerals**  
**Department of Mathematics and Statistics**  
**Semester (112)**  
**Syllabus Math 621: General Topology**  
**Dr. Mohammad Z. Abu-Sbeih**

Textbook: J.R. Munkres, Topology, A First Course, Prentice-Hall, 1975.

**Catalogue Description:** The Tychonoff theorem, one-point compactification, the Stone-Cech compactification. Paracompactness, Lindelof spaces, Stone's theorem. Metrizable, the Nagata-Smirnov metrization theorem. Homotopy paths, fundamental group, simply-connected spaces, retracts and deformation retracts; the fundamental groups of the circle, the punctured plane and the n-sphere; Van Kampen's theorem.

**Prerequisite:** MATH 521

**OBJECTIVE:** This course is a continuation of Math 521 and is designed to develop the fundamental concepts of general topology which are the basic tools of working mathematicians in a variety of fields.

**GRADING POLICY:** (100%)

**MIDTERM EXAM** (25 %). Saturday, March 17, 2012,

**HOMEWORK:** (25 %) (To be assigned weekly in the class and will be due in the next week .

**PRESENTATION:** (15 %).

**FINAL EXAM** (Comprehensive): 35% (TBA).

**NOTE:** The students with more than six unexcused absences will be awarded DN grade. The students getting less than 50% in all the examinations may be awarded F grade.

**OFFICE:** 5-309, Phone 2697. ( You may find me in the other office 5-401 Phone 2296)

**OFFICE HOURS:** Saturday, Monday, Wednesday: 1:00 – 2:30 PM **OR BY APPOINTMENT.**

