King Fahd University of Petroleum and Minerals Department of Mathematics & Statistics

Syllabus Math 525 AY: 2022-2023 (T222) Dr. Othman Echi Office :102-4 Building 5

Title: Graph Theory

Textbook: Graph Theory by J.A. Bondy U.S.R. Murty, 2008.

Description: Review of basic concepts of graph theory. Connectivity, matching, factorization and covering of graphs, embeddings, edge, and vertex coloring. Line graphs. Reconstruction of graphs. Networks and algorithms.

Office Hours: Every Monday from 10:00 to 11:00 AM

Grading Policy:

Exam 1	Exam 2	Exam 3	HW	Presentations	Final Exam
20%	20%	20%	5%	5%	30%
March 05,	March 21,	tba			tba
2023	2023				

Week	Chapter	Topics		
1,2	1	Graphs		
3,4	2	Subgraphs		
5	3	Connected Graphs		
6,7	4	Trees		
8,9	9	Connectivity		
10	10	Planar Graphs		
11	11	The Four-Colour Problem		
12	14	Vertex Colourings		
13	16	Matchings		
14	17	Edge Colourings		
15	18	Hamilton Cycles		