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## Suggested Course in Operations Research

<b>Graphs</b>	GRAPHS AND THEIR REPRESENTATION	Section 1.1
	ISOMORPHISMS	Section 1.2
	TESTING FOR ISOMORPHISM	
	UNION AND INTERSECTION	Section 1.4
	DIRECTED GRAPHS	Section 1.5
<b>Subgraphs</b>	SUBGRAPHS AND SUPERGRAPHS	Section 2.1
	SPANNING SUBGRAPHS	Section 2.2
	PROOF TECHNIQUE: INDUCTION	
	PROOF TECHNIQUE: CONTRADICTION	
	INDUCED SUBGRAPHS	
	WEIGHTED GRAPHS AND SUBGRAPHS	
	MODIFYING GRAPHS	Section 2.3
	DECOMPOSITIONS	Section 2.4
	EDGE CUTS	Section 2.5
	BONDS	
<b>Connected Graphs</b>	WALKS	Section 3.1
	CUT EDGES	Section 3.2
	EULER TOURS	Section 3.3
	CONNECTION IN DIGRAPHS	Section 3.4
	FLEURY'S ALGORITHM	
<b>Trees</b>	FORESTS AND TREES (EXCEPT INSET)	Section 4.1
	SPANNING TREES	Section 4.2
	FUNDAMENTAL CYCLES AND BONDS	Section 4.3
<b>Nonseparable Graphs</b>	CUT VERTICES	Section 5.1
	NONSEPARABLE GRAPHS	Section 5.2
	BLOCKS	
<b>Tree-Search Algorithms</b>	BREADTH-FIRST SEARCH AND SHORTEST PATHS	Section 6.1
	MINIMUM-WEIGHT SPANNING TREES	Section 6.2
	FINDING SHORTEST PATHS IN WEIGHTED DIGRAPHS	Section 6.3
<b>Flows in Networks</b>	TRANSPORTATION NETWORKS	Section 7.1
	THE MAX-FLOW MIN-CUT THEOREM	Section 7.2

## Optional Topics

<b>Complexity of Algorithms</b>	APPROXIMATION ALGORITHMS	Section 8.4
	GREEDY HEURISTICS	Section 8.5
	LINEAR AND INTEGER PROGRAMMING	Section 8.6
<b>Connectivity</b>	VERTEX CONNECTIVITY	Section 9.1
	EDGE CONNECTIVITY	Section 9.3
<b>Planar Graphs</b>	PLANE AND PLANAR GRAPHS	Section 10.1
	FACES	Section 10.2
	DUALS	
	EULER'S FORMULA	Section 10.3
	BRIDGES	Section 10.4
	KURATOWSKI'S THEOREM	Section 10.5
	CHROMATIC NUMBER	Section 14.1
<b>Vertex Colourings</b>	MAXIMUM MATCHINGS	Section 16.1
	MATCHINGS IN BIPARTITE GRAPHS	Section 16.2
	AUGMENTING PATH SEARCH	Section 16.5
	EGERVÁRY'S ALGORITHM	
	<b>Matchings</b>	