Code	Subject Title		Cr. Hrs	Semester
MATH-205	Graph Theory		2	III
Year	Discipline			
2	Mathematics-I,II			

Course Outline

- Definition and examples of a graph
- Sub graph
- Types of graphs
- Paths, cycles, wheels and walks
- Connected and disconnected graph
- Isomorphism
- Handshaking lemma
- Matrix representation of a graph
- Three puzzles
- Connectivity
- Eulerian graphs
- Hamiltonian graphs
- Shortest path algorithms
- Trees

Recommended Books

1. Robin J. Wilson, *Graph Theory*, 4th Edition, Longman 2000
2. Douglas B. West, *Graph Theory*, 2nd Edition, Prentice Hall 2003
3. V.K.Balakrishnan, *Graph Theory*, Schaum's Ouline 1997
4. Parthasarathy, K.R. *Basic Graph Theory*, McGraw Hill, 1994
5. Bela Bollobas, *Graph Theory*, Springer Verlag, New York, 1979