MISM 516 Taxonomies, Ontologies and Semantic Web

Course Objective
The course is designed to equip students with the latest developments in the Semantic Web scenario. The course aims at developing skills in the areas of building ontologies and ontology-based knowledge management systems. The focus is laid on development of ontologies and application of ontology languages.

Course Outline
- Knowledge Organization Systems – Term Lists; Classification and categorization systems; Relationship Models
- Taxonomy – Descriptive taxonomies; Navigational taxonomies; Data management vocabulary; Role of taxonomies in content management; Building and maintaining taxonomies
- The Semantic Web Vision
- Ontology Languages for the Semantic Web – RDFS, OWL, OIL and DAML+OIL
- Ontology Query Languages – RDQL, SeRQL 9
- Ontology Editing Tools
- Ontology – Inference and Reasoning
- Ontology – Application and techniques

Course Readings
- Building Taxonomies (Chapter 6) in Unlocking Knowledge Assets. Susan Conway and Char Sligar, Microsoft Press
- Fensel, Dieter et al. Spinning the Semantic Web: Bringing the World Wide