



# SYMBIOSIS COLLEGE OF ARTS & COMMERCE

An Autonomous College | Under Savitribai Phule Pune University

Reaccredited 'A+' with 3.51 CGPA For Third Cycle By NAAC | College with Potential for Excellence

<b>Title of the Subject</b>	<b>Disaster Management</b>	
<b>Paper</b>	<b>TYBA – SEM V</b>	
<b>Objectives of the Course:</b>	<ol style="list-style-type: none"><li>1. Determine and understand of the various concepts related to disaster management.</li><li>2. Associate hazards and disasters with natural phenomena/ processes for revealing their interrelationships.</li><li>3. Application of innovative technologies such as RS and GIS in Disaster preparedness and mitigation.</li><li>4. Analyze cause and effect of natural hazards and disasters for developing strategy for humanitarian assistance.</li><li>5. Evaluation of disaster management related data availability and learning through case studies.</li></ol>	
<b>Gist of this course in maximum 3 to 4 lines</b>	Disaster and hazard management has become key issue with human induced modifications in earth and particularly climate system. The syllabus designed to make students aware about risk and vulnerability of natural hazards and focusses on international, national, and regional solutions for the same. It is expected to create awareness, analyze the geographical dimensions related to hazards and provide solutions for the same. ICT enabled tools and techniques for hazard management provides edge on perspective for Disaster Management.	
<b>Detailed syllabus</b>		
<b>Unit</b>	<b>Contents of the syllabus</b>	<b>Number of Lectures</b>
1.	Risk and Vulnerability Analysis a). Risk: Its concept and analysis	10

	<ul style="list-style-type: none"> <li>b). Vulnerability: Its concept and analysis</li> <li>c). Strategic Development for Vulnerability Reduction</li> <li>d). Difference between Hazards and Disasters</li> <li>e). Concept of Adaptation, Resilience and Mitigation</li> </ul>	
<b>2.</b>	<p>Title of The Topic: Geomorphic and Climatic Issues</p> <ul style="list-style-type: none"> <li>a) Landslide Hazards and other Mass Movements</li> <li>b) GLOF</li> <li>c) Tropical Cyclones</li> <li>d) Heat waves</li> <li>e) Implications of Climate Change and Global Warming</li> </ul>	<b>10</b>
<b>3.</b>	<p>Title of The Topic: Hydrological Issues</p> <ul style="list-style-type: none"> <li>a) Variability of SW Monsoons - Floods and droughts, Urban Floods</li> <li>b) Depletion and Pollution of Ground water resources</li> <li>c) Glimpses of Global Water Crisis</li> </ul>	<b>10</b>
<b>4.</b>	<p>Title of The Topic: Disaster Preparedness and Management</p> <ul style="list-style-type: none"> <li>a) Early Warning System</li> <li>b) Climate Resilience, Adaptation and Mitigation policies</li> <li>c) Watershed Management</li> <li>d) Sendai Framework for Disaster Risk Management</li> </ul>	<b>10</b>
<b>5.</b>	<p>Application of GIS and Remote Sensing in Disaster Management</p> <ul style="list-style-type: none"> <li>a) Risk and Vulnerability Mapping for Disaster Management</li> <li>b) Applications of RS and GIS in Geomorphic and Climatic issues Disaster Management</li> <li>c) Applications of RS and GIS in Hydrological Disaster Management</li> </ul>	<b>14</b>
	<b>Total Number of Lectures</b>	<b>54</b>

**Suggested Reference Books:**

- 1. Disaster Management: Future Challenges and Opportunities-Jasbir Singh**
- 2. Disaster Management- Savindra Singh and Jeetendra Singh**
- 3. Natural Hazards and Disaster Management- Prakash Visnoi**