

URBAN PLANNING 549 -- TOWARD INCREASED RESILIENCE THROUGH HAZARDS MITIGATION							
Course Instructor: Bob Freitag			Grades				
Course objectives - That the end of the course you will be able to:			Grades will be based on:				
<ul style="list-style-type: none"> <li>Define the 4 phases of emergency management within context of 5 FEMA Mission Areas</li> <li>Determine risks and opportunities</li> <li>Profile hazards (changes)</li> <li>Apply mitigation tools and approaches to reduce risks / enhance opportunities associated with hazards</li> <li>Define a Resiliency Model</li> <li>Test Resiliency Model through exploration of future scenarios</li> <li>Evaluate Model</li> <li>Realize that where there are hazardous events, there are opportunities</li> </ul>			<ul style="list-style-type: none"> <li>Class participation/ team presentations in class (40%)</li> <li>Results of Midterm (20%)</li> <li>Team project. (40%)</li> </ul>				
Month	Day	Topic	Student Activity	Subject Source / Readings	Instruction / Methods	Modules	
January	6	INTRODUCTIONS/OVERVIEW -- TERMS AND CONCEPTS:	1. Introductions including student expectation 2. Discussion of Syllabus 3. Presentations of concepts by instructor 4. Definitions of Mitigation within context of phases in Emergency Management ( <b>Class Exercise</b> )	1. Read about a current disaster events -- Climate Change, Hurricane, Tornado, Flooding, Earthquakes... 2. Primary Secondary Changes (Hazards)	Discussion / Lecture	Terms and Concept	
	8	Risks / Opportunities (as a function of changes, impacts and capabilities) -- Building a model	1. Discussion of concepts presented in readings 2. <b>Participation in risk role playing exercise</b> 3. Form Snohomish teams -- South West, Snohomish and Stillaguamish	1. Floodplain Management, Chapter 3 2. Coastal Course Module 3 4. National Preparedness Goal and PPD - 8 5. Natural Hazards UnNatural Disasters -- Chapter 1, Fluctuating Deaths, Rising Damages 6. <a href="http://www.crew.org">www.crew.org</a> reports	Role Play		
	13	Risks / Opportunities Assessment -- Tectonic (Geologic Hazards): Earthquake, Volcano, Landslides, Tsunami	1. Discussion of assigned material and topical information 2. Lecture on Geologic Hazard specific risks • Earthquake • Landslide • Tsunami • Volcano	1. State Hazards Mitigation Plan -- Earthquake 2. Snohomish County Hazard Mitigation Plan - Earthquake 4. ESCA Hazard Mitigation Plan -Earthquake	Discussion / Lecture	Risk and Opportunities	
	15	Risks / Opportunities Assessment Continued -- Tectonic (Geologic Hazards): Earthquake, Volcano, Landslides, Tsunami	1. Discussion of assigned material and topical information 2. Lecture on Geologic Hazard specific risks • Earthquake • Landslide • Tsunami • Volcano	1. State Hazards Mitigation Plan -- Volcano, Tsunami and Landslide Chapters 2. Snohomish County Hazard Mitigation Plan -- Volcano, Tsunami and Landslide Chapters 3. ESCA Hazard Mitigation Plan -- Volcano, Tsunami and Landslide Chapters 4. Santa Cruz Climate Change Hazard Mitigation Plan	Discussion / Lecture		
	20	<b>Martin Luther King Day</b>					
	22	Risks / Opportunities Assessment by Student Team - Tectonic (Geologic Hazards): Earthquake, Volcano, Landslides, Tsunami	1. Discussion of Reading Material 2. <b>Presentations by student teams</b> • South West • Snohomish • Stillaguamish	1. Snohomish County Hazard Mitigation Plan -- Volcano, Tsunami and Landslide Chapters 2. ESCA Hazard Mitigation Plan -- Volcano, Tsunami and Landslide Chapters 3. County identified Action Items.	Student Presentations		
	27	Follow up disucion to first set of presenttions.	1. Discussion of assigned material and topical information 2. Lecture / discussion of presentations and new material	1. Preservation and Hazard Mitigation for Unreinforced Masonry Buildings in Seattle 2. Social Representations of Earthquakes: A Study of People Living in Three Highly Seismic Areas 3. PPTs on Project Safe Haven and Bahrainy.	Discussion / Lecture		
	29	Risks / Opportunities Assessment -- Meteorological hazard based risks: Drought, Flood, Severe Storm and Wildfire Fire	1. Discussion of concepts presented in readings 2. Lecture on Geologic Hazard specific risks • Climate Change • Flood • Severe Storm • Wildfire Fire • Drought	1. State Hazards Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 2. Snohomish County Hazard Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 3. ESCA Hazard Mitigation Plan -Earthquake -- Drought, Flood, Severe Storm and Wildfire Fire	Discussion / Lecture		
	3	Risks / Opportunities Assessment Continue -- Meteorological hazard based risks: Drought, Flood, Severe Storm and Wildfire Fire	1. Discussion of assigned material and topical information 2. Lecture on Geologic Hazard specific risks • Climate Change • Flood • Severe Storm • Wildfire Fire • Drought	1. State Hazards Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 2. Snohomish County Hazard Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 3. ESCA Hazard Mitigation Plan -Earthquake -- Drought, Flood, Severe Storm and Wildfire Fire 4. <b>County Action Items</b>	Discussion / Lecture		
	5	Risks / Opportunities Assessment Continue -- Meteorological hazard based risks: Drought, Flood, Severe Storm and Wildfire Fire	1. Discussion of assigned material and topical information 2. <b>Presentations by student teams</b> • Drought • Flood • Severe Storm • Wildfire Fire • Climate Change	2. State Hazards Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 3. Snohomish County Hazard Mitigation Plan -- Drought, Flood, Severe Storm and Wildfire Fire 4. ESCA Hazard Mitigation Plan -Earthquake -- Drought, Flood, Severe Storm and Wildfire Fire	Student Presentations		
<b>Mid-term</b>							
February	10	Mitigation other approaches:	1. Discussion of assigned material and topical information 2. Lecture / discussion of new material	1. Millennium Documents and Video 2. Natural Hazards UnNatural Disasters 3. UW FEMA Project -- Panarchy and resilience 4. SafeHaven Project 5. Contingency Planning 6. Capabilities Matrix	Discussion / Lecture	Building a Model	
	12	Planning and zoning basics	1. Discussion of assigned material and topical information 2. Lecture / discussion of new material	FEMA the big picture 1. PPD-8 2. THIRA 3. NDRF and 4. the relationship to mitigation	Kristen Meyers (FEMA)		
	17	<b>Presidents Day</b>					
	19	HAZUS	Lecture on HAZUS			Kelly Stone (FEMA)	Tools and Strategies
	24	Planning for uncertainty	Lecture on Snohomish Basin 2060 Scenarios, Adapting to an Uncertain Future:	1. Snohomish Basin 2060 Scenarios, Adapting to an Uncertain Future 2. Scenarios for Snohomish Basin 2060	Discussion / Lecture		
26	Scenarios in context with Comp Plan	<b>Student exercise</b>	1. Snohomish Basin 2060 Scenarios, Adapting to an Uncertain Future 2. Scenarios for Snohomish Basin 2060	Team Driven Discussion			

March	3	Scenarios in context with Comp Plan and Hazards Mitigation Plan.	1. Discussion of assigned material and topical information 2. What is a Plan? 3. What are goals / objectives and strategies and why important?	1. Zoning Practice and safe growth audits, APA, 2. Evaluation and Benefit/Cost analyses 3. What are goals / objectives and strategies and why they are important?	Team Driven Discussion	Capabilities (Approaches and To	
	5	Capabilities: By stakeholder (Traxler, Maureen (Maureen.Traxler@seattle.gov))	1. Discussion of assigned material and topical information 2. Lecture / discussion of new material	1. Natural Hazards UnNatural Disasters – Chapter 3 - 5 2. Best Practices: Ch 1 - 5 3. Other Hazards Mitigation Plans 4. Washington State HIVA-	Discussion / Lecture		
	10	Mitigation in context: Hazards Mitigation Planning.	1. Discussion of assigned material and topical information 2. Lecture / discussion of new material	Hazards Mitigation According to FEMA : King County Case Study	Kristen Gelino,		
	12	Open	1. Discussion of assigned material and topical information 2. Lecture / discussion of new material 3. Student exercise				
	17 . 19	<b>FINAL EXAMINATION / PROJECT PRESENTATIONS</b>					
Readings	1	Floodplain Management: A New Approach for a New Era (Freitag et al., Island Press, 2009)				Readings	
	2	State Hazards Mitigation Plan: <a href="http://www.emd.wa.gov/plans/washington_state_hazard_mitigation_plan.shtml">http://www.emd.wa.gov/plans/washington_state_hazard_mitigation_plan.shtml</a>					
	3	Snohomish Hazards Mitigation Plan: <a href="http://www1.co.snohomish.wa.us/Departments/Emergency_Management/Information/Plans_Reports/">http://www1.co.snohomish.wa.us/Departments/Emergency_Management/Information/Plans_Reports/</a>					
	4	Emergency Services Coordinating Agency: <a href="http://www.esca1.com/index.php/Mitigation_Plan_Update_(2010)">http://www.esca1.com/index.php/Mitigation_Plan_Update_(2010)</a>					
	5	Integrating the Local Natural Hazard Mitigation Plan into a Community's Comprehensive Plan: <a href="http://www.fema.gov/media-library-data/1388432170894-">http://www.fema.gov/media-library-data/1388432170894-</a>					
	6	Washington Coast Tsunami Safe Haven Project reports: <a href="http://www.facebook.com/ProjectSafeHaven">http://www.facebook.com/ProjectSafeHaven</a>					
	7	Ecosystems and Human Well-Being: A Manual for Assessment Practitioners					
	8	Snohomish Basin 2060 Scenarios, Adapting to an Uncertain Future: <a href="http://www.urbaneco.washington.edu/sbs/">http://www.urbaneco.washington.edu/sbs/</a>					
	9	Scenarios for Snohomish Basin 2060: <a href="http://www.urbaneco.washington.edu/sbs/scenario-planning.php">http://www.urbaneco.washington.edu/sbs/scenario-planning.php</a>					
	10	Snohomish Comprehensive Plan: <a href="http://www1.co.snohomish.wa.us/Departments/PDS/Divisions/PlanningandTechnology/LR_Planning/Projects_Programs/Comprehensive_Plan/">http://www1.co.snohomish.wa.us/Departments/PDS/Divisions/PlanningandTechnology/LR_Planning/Projects_Programs/Comprehensive_Plan/</a>					
	11	World Risk Report: <a href="http://www.ehs.unu.edu/article/read/worldriskreport-2012">http://www.ehs.unu.edu/article/read/worldriskreport-2012</a>					
	12	CREW Scenarios and guides ( <a href="http://www.crew.org">www.crew.org</a> )					
	13	Global Climate Impacts in the United States: <a href="http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts">http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts</a>					
	14	Fema Guidance: <a href="http://www.fema.gov/multi-hazard-mitigation-planning">http://www.fema.gov/multi-hazard-mitigation-planning</a>					
	15	Natural Hazards and UnNatural Disasters: The Economics of Effective Prevention World Bank, 2010					
	16	"How can emergency managers address our warming climate?" Journal of Emergency Management, Freitag					
	17	FEMA "How to..." planning guides ( <a href="http://www.fema.gov/plan/mitplanning/planning_resources.shtml">http://www.fema.gov/plan/mitplanning/planning_resources.shtml</a> )					
	18	Hazard Mitigation: Integrating Best Practices into Planning, James C. Schwab, AICP, Editor					
	19	Capabilities Inventory Tool					
	20	Zoning Practice: practice safe growth audits, APA, October 2009					
	21	National Preparedness Goal					
	22	Presidential Policy Directive --8					
	23	Building Resilience to Natural Disasters: A Framework for Private Sector Engagement					
	24	Green Book. Planning for Post-Disaster Recovery and Reconstruction, Jim Schwab (APA)					
	25	FEMA: Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201 First Edition April 2012					
	26	Managing the escalating risks of natural catastrophes in the United States, Lloyds of London					
	27	Ecosystems and Human Well-Being, Synthesis, Millennium Ecosystem Assessment, Island Press, Washington, DC, 2005					
	28	Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201 Supplement 1: Toolkit First Edition April 2012					
	29	Natural Hazards Mitigation Association (NHMA): <a href="http://nhma.info/Images/NHMA_Membership_Form.pdf">http://nhma.info/Images/NHMA_Membership_Form.pdf</a>					