**University of Management and Technology**

**School of Architecture & Planning**

**Department of Architecture**

**Course Outline**

Course code: AR-615 Course title: Disaster and Hazard management

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| Program | M-ARCH |
| Credit Hours | 3+0 |
| Duration | One semester(16 weeks) |
| Prerequisites | None |
| Resource Person | As Per timetable |
| Counseling Timing | Kindly see office window | - |
| Contact | - | Email:  |

**Chairman/Director signature………………………………….**

**Dean’s signature…………………………… Date………………………………………….**

**Learning Objective:**

To familiarize with the basic concepts and skills about natural and human induced hazards and associated disaster, disaster management, and adaptation to climate change.

1. Define the basics of natural and human-induced hazards and associated disasters
2. Understand and explain disaster management cycle (Pre-disaster, disaster, and post disaster scenario),and its relation to development
3. Outlining the hazard profile of Pakistan and its sub-regions
4. Define and describe the Climate change as a phenomenon, and its relation to potential disasters
5. Interpret analyze and map the likely impacts and required preparation to reduce the impact upon happening of disasters to achieve disaster resilience development
6. Mapping of hazard specific and overall vulnerability, capacity w.r.t. historical trends and current climate change scenario

**Learning Methodology:**

* Lecturing
* Written Assignments
* Guest Speaker
* Field surveys
* Report Writing
* Term Project Submission

**Grade Evaluation Criteria**

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

**Marks Evaluation Marks in percentage**

Quizzes 10%

Assignments 10%

Mid Term 30%

Term Project 20%

Final exam 30%

Total 100%

**Recommended Text Books:**

1. Edward Ng. (2015), *The Urban Climatic Map: A Methodology For Sustainable Urban Planning*, Routledge.
2. NidhiGaubaDhawan. (2014), *Disaster Management and Preparedness*, CBS Pub.
3. Bulkeley, Harriet (2013), *Cities and climate change*, Routledge.
4. Hamnett, Stephen (2011), *Planning Asian cities: risks and resilience*,Routledge.
5. ERRA (2010), *Urban Development Strategy* available at <http://www.erra.pk/reports/Housing/UrbanHousing/270509Urban_Housing_Developemnt_Strategy%20.pdf>
6. ERRA (2009), *Annual Report of Earthquake Reconstruction and RehabilitationAuthority of Pakistan* available at:

<http://www.erra.pk/Reports/Publications/Annual%20Review%202009%20-%202010.PDF>

1. Davidson, C. H., C. Johnson, et al. (2007), "Truths and Myths about Community Participation in Post-Disaster Housing Projects." *Habitat International* 31(1): 100-115.
2. Dilley, M. (2005),*Natural Disaster Hotspots: A Global Risk Analysis*, World Bank Publications.
3. Aloysius J. Rego (2003),*The Primer on Disaster Risk Management in Asia; Bangkok*, Asian Disaster Preparedness Center.
4. Sharma, A., M. Gupta, et al. (2003), "From Disaster to Sustainable Community Recovery." *Regional Development Dialogue*, 24(1), 53-61.
5. *Town Planning Instruments as a Strategy for Disaster Risk Reduction* available at <https://www.fig.net/pub/accra/papers/ts07/ts07_01_adeleye_olayiwola.pdf>

**Calendar of Course contents to be covered during the semester**

Course code: AR-615 Course title: Disaster and Hazard management

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| --- | --- | --- |
|  **Week** |  **Course Contents**  | **Weeks**  |
| 1 | Introduction to Earthquakes – Sensitive Areas in Pakistan and the Indian Subcontinent | 1st Week |
| 2 | Introduction to the Khyber-Pakhtunkhwa Areas and the History of Earthquakes | 2nd Week |
| 3 | Case Study – I: Earthquake Mapping of Peshawar | 3rd Week |
| 4 | Case Study – II: Earthquake Mapping of Hunza | 4th Week |
| 5 | Case Study – III: Earthquake Mapping of Makran Coast, British Balouchistan | 5th Week |
| 6 | Hazard and Disaster Investigation | 6th Week |
| 7 | Guest Speaker | 7th Week |
| 8 | Mid Exam | 8th Week |
| 9 | Disaster Risk Management (DRM) and Disaster Risk Reduction (DRR) in Development Planning | 9th Week |
| 10 | Damage and Need Assessment  | 10th Week |
| 11 | Emerging Political Trends and the Earthquake-prone zones | 11th Week |
| 12 | Disaster Management Policies and Institutional Infrastructure from National to Local Level | 12th Week |
| 13 | Pakistan: National Disaster Management Plan; National DRR Policy; National Climate Change Policy | 13th Week |
| 14 | Seminar on Earthquakes – Case Study of Japan | 14th Week |
| 15 | Submission of Term Project | 15th Week |
| 16 | Final Exam  | 16th Week |