



School of Planning and Architecture: Vijayawada
 (An institution of National Importance under the Ministry of Human Resource Development, Govt. of India)
 S.No. 71/1, NH-5, Nidamanuru, Vijayawada – 521 104, Andhra Pradesh, India

Department of Architecture

Course: Water and Built Forms (10210202)
Instructors: S. Mohan Vamsi

Class: M. Arch I year, IISem A.Y. 2017-18
Internal Assessment: 50
External Theory Exam: 50
Total Marks: 100
Credits: 3

Contact Periods/ week: 02

Time Table:

Attendance: Min 75%

Min. Passing Marks: 50% each in Internal & External Assessment, 50% in Aggregate

Objective:

Out Line of the Course:

LECTURE PLAN

S. No.	Week	TOPIC OF CLASS LECTURE & DISCUSSION	CLASS ACTIVITIES & ASSIGNMENTS
1	Week 1	Introduction, Water demand, Growing water misuse, Pollution, threat to environment, Social implications, Sustainability of water recourses.	Lecture
2	Week 2	Ground water management, Issues related to urban water supply Running water and underground water; Channel networks and drainage basins,	
3	Week 3	Hill slope geomorphology. Surface Drainage,	Lecture
4	Week 4	Site planning for efficient drainage; Understanding drainage pattern and watershed area	Lecture
5	Week 5	Assignments	Presentation
6	Week 6	Calculation of surface runoff, Determination of catchments area and discharge rate.	Lecture
7	Week 7	Types of drainage systems, Design of drainage elements (swales and culverts etc.)	Lecture
8	Week 8	Sub surface drainage planning and water conservation strategies (rain water harvesting, percolation pits etc.)	Lecture
9	Week 9	Analysis and critical assessment to investigation through Design hypotheses focusing on	Lecture
10	Week 10	Assignment II	Reports/ Presentation
11	Week 11	Connection between the human settlements and use of the water	Lecture
12	Week 12	SpECIAL Lecture /Case studies	Lecture / site study
13	Week 13	Through provision for collective use and inhabitation of the water-edge for certain areas of the sea/river/lake/stream bank should act as social condensers.	Lecture

14	Week 14	Definitions of physical form along the river, water body and its manifestation with urbanism that celebrates density and diversity	Lecture
15	Week 15	Assignment III	Presentations
16	Week 16	Assignment III	Presentations

S.No.	Category of Evaluation	Marks	Note
1	Assessment – I	15	<i>The Marks allotted at each stage is tentative. Categories of evaluation may be increased or decreased (merged) on</i>
2	Assessment – II	15	
3	Assessment – III	20	

Reference Books:

1. Vancouver in Focus: The City's Built Form, Author: Mike Chadwick, Publisher: Granville Island Publishing, ISBN-10: 1894694449, ISBN-13: 978-1894694445
2. Water Sensitive Urban Design: Principles and Inspirations for Sustainable Storm water Management in the City of the Future, Author: Jacqueline Hoyer, Wolfgang Dickhaut, Lukas Kronawitter, Björn Weber, ISBN 978-3-86859-106-4
3. Design for Water | Rainwater Harvesting, Storm water Catchment, and Alternate Water Reuse, Author: Heather Kinkade-Levario, Date of publication: June 2007, Publisher: New Society Publishers; 1 edition, ISBN 978-0865715806
4. Living Systems | Innovative Materials and Technologies for Landscape Architecture, Authors: Liat Margolis, Alexander Robinson, Publisher: Birkhäuser Architecture, Date of publication: June 2007, ISBN 978-3764377007
5. Sustainable Infrastructure | The Guide to Green Engineering and Design, Author: S. Bry Sarte, Date of publication: September 2010, Publisher: Wiley, ISBN: 978-0470453612
6. Water and Urban Development Paradigms, Towards an Integration of Engineering, Design and Management Approaches, Author & Editors: Jan Feyen, Kelly Shannon, Matthew Neville, Publisher: CRC Press, Date of publication: Sept, 2008, ISBN 978-0415483346
7. Water Centric Sustainable Communities | Planning, Retrofitting and Building the Next Urban Environment, Author: Vladimir Novotny, Jack Ahern, Paul Brown | Publisher: Wiley, Date of publication: October, 2010. ISBN 978-0470476086
8. Waterscapes | Planning, Building and Designing with Water, Author Editors: Herbert Dreiseitl, Dieter Grau, Karl H.C. Ludwig, Publisher: Birkhäuser Basel, Date of publication: April, 2001, ISBN 978-3764364106

Signatures of the Instructors:

Head of the Department: