DEPARTMENT OF ARCHITECTURE

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Course Title	**CLIMATE RESPONSIVE ARCHITECTURE**		
Course Code	**AR 202**	**No. of Credits**	**3**
Course Code of Pre-requisite subject(s)	**NONE**		
Session	**Jan. 2018**	**Section (if, applicable)**	**SINGLE**
Name of Faculty	**Dr. T. SRINIVAS**	**Department**	**ARCHITECTUER**
Email	**srivas@nitt.edu**	**Telephone No.**	**0431 2503555**
Name of Course Coordinator(s) (if, applicable)	**N A**		
E-mail		**Telephone No.**	
Course Type	[X] **Core course**	[ ] **Elective course**	

Syllabus (approved in BoS)

BOS held in 2015

COURSE OBJECTIVES

- To place emphasis on climate as generator of design form. To provide knowledge and skills to analyse climate & comfort factors so as to enable students to generate design guidelines and design and evaluate sun shades and other buildings elements. To enable the students to integrate climatic design into Architectural design.

COURSE OUTCOMES (CO)

Course Outcomes	**Aligned Programme Outcomes (PO)**
1. Understanding of impact of climate on buildings and vice versa through familiarizing climate variables and zones.	
2. Understand and analyse basics of human thermal comfort, climate variable.	
3. Understand solar geometry and engage in the design of solar shading and its applications in building and site design.	
4. To generate design guidelines for any climate zone and to be able to integrate the same into architectural design decisions.	
5. To familiarize issues of daylighting in architectural design.	

COURSE PLAN – PART II

COURSE OVERVIEW

Thies course aims to provide the students with the understanding and ability to integrate the same so as to help take design decisions at the sketch and schematic design stage.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week /Hrs	Topic	Mode of Delivery
1	1	Introduction, climate, scales of climate, importance of integrating the same in design	Lecture
2	2	Climate,Macro, micro, influencehuman activities etc	Lecture
3	3	Climate variables, measurement, scaling, application	Lecture
4	4	Climate zones and building needs	Lecture
5	5	Solar geometry	Lecture
6	6	Sun anlgles, sun path, shadow mask	Lecture
7	7	Introduction to thermal comfort, comfort models	Lecture
8	8	Test	
9	9	Climate and comfort analysis (Assignment 1)	Tutorial / assignment
10	10	Design of Shading devices (Assignment 2)	Tutorial / assignment
11	11	Application of design in a case study (Assignment 3)	Tutorial / assignment
12	12	Natural ventilation /window design	Lecture
13	13	Daylighting design, Daylight factor, guidelines	Lecture
14	14	Retest	
15	15	Design guidelines, case studies, application	Lecture

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Test	Week 8	One hour	20
2	Assignment 1	Week 9	One week	10
3	Assignment 2	Week 10	One week	10
4	Assignment 3	Week 11	One week	20
CPA	Compensation Assessment*	Week 14	One hour	20
5	Final Assessment *		Two hours	40

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

Any method prescribed by the institution common to all faculty / theory subjects

COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment, , academic honesty and plagiarism etc.)

MODE OF CORRESPONDENCE (email/ phone etc)

Email : srivas@nitt.edu contact number: 9443251673 or 04312503555

ATTENDANCE : Minimum of 75% of classes held . For medical reasons only for hospitalization condition a minimum of 65%. All cases below 65% and above 50 % attendance have to undergo mandatory classes and assignments during vacation period. Those below 50% attendance have to undergo Formative assessment.

COMPENSATION ASSESSMENT : No compensation for assignments. Retest will be held for those absent during the test 1.

ACADEMIC HONESTY & PLAGIARISM : Copying, plagiarism, will be viewed seriously. For late submission of assignments marks will be cut accordingly.

ADDITIONAL INFORMATION

Students shall obtain minimum of 40% marks to secure "E" grade / pass.

FOR APPROVAL

Course Faculty 10/1/18 T.SRINIVAS **CC-Chairperson** 10/01/2018 **HOD** 1/1/18