DEPARTMENT OF ARCHITECTURE
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

Name of the programme	**Bachelor of Architecture**		
Course Title	**Surveying and Site Planning**		
Course Code	**AR 209**	**Credits**	**03**
Department	**Architecture**	**Faculty**	**Dr D.Kannamma**
Pre-requisites Course Code	**Minimum of E grade in AR 112 Architectural Design - II**		
Session	**July 2018**	**Section**	**NA**
Course Coordinator(s)	NA		
Course Teacher / Tutor E-mail	**kanama@nitt.edu**	**Tel. No.**	**0431 – 250 3566**
Course Type	☑ **Core course** ☒ **Elective course**		

Syllabus (approved in BoS)

Definition of plot, site, land and region. Units of measurements. Reconnaissance and need for surveying – chain survey, compass survey, plane table & theodolite surveys. Contouring – Contour interval – Characteristics, uses of contours. Importance of site analysis – factors involved. Accessibility, size and shape of sites. Confirming and non-conforming uses. Climate and topography, infrastructures available, sources of water supply and means of disposal system, architectural and visual aspects. Preparation of site analysis diagram.

Lie of the land, contours, watershed, surface drainage, anaicut and irrigation lands. Water, vegetation, soils, climate, land forms. Sewage disposal, irrigation systems and ecology. Preparation of maps of matrix analysis, composite analysis, locality plans, topographical analysis. Man-made structures, sensuous qualities, cultural data, images and data correlation. Vegetation, plant associations, types and distribution. Preparation of ecological profile of an area.

Note: Practical sessions shall be conducted on surveying.

ESSENTIAL READINGS :

1. John I.Motloch, Introduction to landscape design, john wileyand sons, Inc.
2. G.K.Hiraskar, Basic civil Engineering, Danpat Rai Publications (P) Ltd, New Delhi.
3. Edward.T.White., "SiteAnalysis", Architectural Media, 1983.
4. P.B.Shahani, "Text of surveying", Vol.I, Oxford and IBH Publishing Co.
5. Storm Steven, "Site engineering for landscape Architects", John wiley & Sons Inc, 2004.
6. John ormsbee Simonds, "Landcsape Architeture: A manual of Site Planning and Design", McGrawhill, 1961.
7. Kevin Lynch, "Site Planning", MIT Press, Cambridge, MA. 1957.
8. Joseph De Chiarra and Lee Coppleman, "Planning Design Criteria", Van Nostrand Reinhold Co., New York, 1988.
9. Thomas H. Russ, "Site Planning and Design Hand Book", Pearson Education, 2002.
10. . Diane Y. Carstens, "Site Planning and Design for the Elderly", Van Nostrand Reinhold, New York, 1993.
11. B.C. Punmia, 'Surveying and Levelling', Vol I and Vol II, Laxmi Publications pvt Ltd.

COURSE OBJECTIVES

1. Description – Site, units of measurement, elements of site planning
2. Landscape signatures
3. Describe the steps necessary to produce a complete and integrated site plan
4. Perform site analysis
5. Develop site planning concept
6. Understand the required components of the sketch and concept site plans
7. Calculate geometric requirements for circulation
8. Understand Grading , slope analysis
9. Understand the need for surveying
10. Comprehend Surveying Techniques
11. Climate – Topography – description
12. Understand the concepts of aesthetics in designing site

COURSE OUTCOMES (CO)

Course Outcomes	Program Outcome (PO)
1. Students acquire knowledge about site, measurements and circulation aspects. 2. Students get to know about the various elements of site planning. 3. Students get exposure to surveying techniques. 4. Students understand the various signatures of landscape. 5. Students gain knowledge on slope analysis and grading. 6. Students get to know aspects of drainage and other technical factors relating to site planning.	

COURSE OVERVIEW

This course involves basic understanding of the various aspects of site planning. This course describes the optimal relationship with the natural site and provides general site design guidelines and criteriia for design of circulation,grading and drainage. The environmental – functional – aesthetic attributes of site planning is considered along with knowledge of surveying.

COURSE TEACHING AND LEARNING ACTIVITIES

No	Week	Topic	Mode of Delivery
1	1 – 2	Definition of plot, land and region. Units of measurements.	PPT

		Understanding Ecological – Functional – Aesthetic values.	Practical
2	3 - 4	Traditional and Modern surveying methods. Concept of Exterior space.	PPT
		Circulation: vehicular, pedestrian. Path space relationship.	Practical
3	5 - 6	Contouring – Contour interval – characteristics, uses of contours. Landscape signatures – slope analysis	PPT and Discussion
		Degree of enclosures	Practical
4	7 - 8	Importance of site analysis – factors involved. Accessibility, size and shape of sites.	PPT and Discussion
		Understanding concepts of Exterior Space	Practical
5	9 - 10	Climate and topography, infrastructures available, sources of water supply and means of disposal system, architectural and visual aspects.	PPT
		Scales in Architecture	Practical
6	11 - 12	Preparation of maps of matrix analysis, composite analysis, locality plans, topographical analysis.	PPT
		Landscape components – softscape and Hardscape.	Practical
7	13 – 14	Water, vegetation, soils, climate, landforms. Sewage disposal, irrigation systems and ecology.	PPT
		Understanding planting design in Campus	Practical
8	15 – 16	Man-made structures, sensuous qualities, cultural data, images and data correlation. Vegetation, plant associations, types and distribution. Preparation of ecological profile of an area.	PPT and Discussion
		Documentation on street furniture.	Practical

COURSE ASSESSMENT METHODS

No	Mode of Assessment	Date / Week / Month	Duration	%
1	Assignment	Week 1	One day	10
2	Assignment	Week 2	One Week	20
3	Test	Week 6	One Week	20
CPA	Compensation Assessment			
4	Assignment	Week 8	One Week	10
5	Final Assessment	At the end of week 16	2 Hours	40

COURSE EXIT SURVEY

1. Feedback survey about course content and suggestions for any improvement / modification – online.
2. Assessment of the knowledge the students gained through this subject – online.
3. Feedback regarding the teaching – learning process – online.

COURSE POLICY

1. For a student to secure a minimum of E grade he / she has to secure a minimum of 40% marks overall and appearance in end – semester examination is compulsory.
2. Students are to follow the given schedule for each project and submissions are to be made on time.

MODE OF CORRESPONDENCE

The faculty member is available for consultation during working hours on all working days. The students can also e-mail their queries to **kanama@nitt.edu**.

COMPENSATION ASSESSMENT POLICY

If a student is unable to submit assignment / write test due to genuine reasons can compensate by submitting assignments / writing test during the compensation assessment period from 05.11.2018 to 09.11.2018 (based on academic calendar.

ATTENDANCE POLICY

1. **At least 75% attendance is mandatory.**
2. **A maximum of 10% is allowed under On Duty (OD) category.**
3. Students with **less than 75% of attendance** shall be prevented from writing the final assessment and **shall be awarded 'V' grade.**

ACADEMIC DISHONESTY & PLAGIARISM

1. Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
2. Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
3. The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

FOR SENATE'S CONSIDERATION

16/07/18

Course Faculty_____ **CC-Chairperson**_____ **HOD**_____

SAS. Kanthi 16/07/18.