



School of Planning and Architecture, Vijayawada

(An institution of National Importance under the Ministry of Education, Government of India)
Sy.No. 4/4, I.T.I Road, Vijayawada, AP – 520 008

DEPARTMENT OF ARCHITECTURE

Course: Architectural Design – VIII (ARC421)

IV Yr. VIII Sem. B.Arch, 2023-24 A.Y (Sec - A & B)

Contact Hours : 12 (as per Timetable)		Credits : 12
Internal Assessment : 50% External Assessment : 50% (Jury) Total : 100%	Passing Marks : 40% each in Internal assessment & External assessment	Attendance : 75% Minimum
Faculty : Sec A : Vijesh Kumar V, Dr Venkata Krishna Kumar Sadhu Sec B : Madhava Rao T, Dr Janmejy Gupta		
Course Outline : To equip the students with methods of Campus planning thorough site analysis, emphasizing energy conservation and utilizing simulation techniques.		
Course objectives : The objectives of this studio are three fold. <ul style="list-style-type: none">• To expose the students to the complexities of campus design in urban and sub-urban areas.• To sensitize the students about scarcity of land and other vital resources and address the same while dealing with different typologies of built-form.• To expose the students to the challenges of large scale project' site planning involving a group of buildings.		
Learning outcome : Students completing this course will be able to: <ul style="list-style-type: none">• To address real-time problems of given urban/sub-urban context.• To handle the design and planning of large scale campuses of various typologies, integrating architectural and necessary allied services /disciplines as required in professional practice.• To learn and understand the emerging trends in various building typologies.• To integrate site level services and infrastructure with built-form and open spaces as required for efficient site-planning.		

NATIONAL INSTITUTE OF DESIGN - RAIPUR

is a place where creativity and careers merge.

An National Institute of Design (NID) has been proposed in Raipur for students who aspire a career for Designer. The NID is a design institute for product designing, product concept development & design innovation. It offers graduate, post-graduate and research education.

Design Objectives

- Harmoniously integrate various campus spaces while preserving individual character and identities.
- Design spaces with flexibility, accommodating variations in size, lighting, furniture, power, and network access.
- Prioritize inclusive design for the physically challenged.
- Create inviting and comfortable places, tailored to the needs of the users.
- Encourage positive interaction among students and faculty.
- Consider the site's physical location and context in the design process.
- Ensure the campus is highly efficient for all user categories.
- Separate formal and informal spaces for both students and faculty.
- Foster healthy interactions between the student community and others.
- Optimize the relationship between various institute sections to enhance interaction.

- Provide dedicated spaces for scheduled and informal activities in all departments.
- Ensure functional efficiency and aesthetic appeal in both interior and exterior spaces.
- Energy conservation through Passive design strategies

Design considerations

- Function and efficiency
- Vertical and horizontal circulation patterns
- Architectural character and quality
- Aesthetics and landmark quality
- Solar, wind, noise, odour and view orientations
- Amenities, facilities, services and utilities(AFSU) introduced
- Security and safety features
- Compliance with prevailing laws with respect to the site.
- Natural and artificial ventilation as applicable.
- Plan to reflect the true essence of design as such with modern features and materials.

Design requirements

The stated project requirements are as follows. The requirements must comply with the development control rules. The NID – TA planned to have 4 departments: (1) *Product Design*, (2) *Furniture Design*, (3) *Department A*, (4) *Department B*. Department A and B you are free to choose based on your interest.

UG is a four year course with student in-take 30 every year in all departments. PG is a two year course with student in-take 15 every year in all departments.

Tentative area requirements are given below for you to develop it further in line with standards, bye-laws and concepts.

Area Requirements

1.	UG Studio	16 Nos.	130 Sq.m for 30 students
2.	PG Studio	8 Nos.	60 Sq.m for 15 students
3.	Classroom UG	16 Nos.	60 Sq.m for 30 students
4.	Classroom PG	8 Nos.	30 Sq.m for 15 students
5.	Computer center		120 Sq.m
6.	Art court and sculpture related activities.		100 Sq.m of semi-open /covered area for display/working of painting
7.	Multipurpose hall		500 Sq.m
8.	Resource center		120 Sq.m
9.	Library		400 Sq.m (desirable: 0.5 Sq.m per student)
10.	Submission and exam room		60 Sq.m (4 Nos.)
11.	Girl's common room (with attached toilet)		30 Sq.m (2 Nos.)
12.	Boy's common room (with attached toilet)		30 Sq.m (2 Nos.)
13.	Staffroom cabins (Professor:Asso.prof:Asst.Prof ratio is given as 1:2:6; Faculty Student Ratio is 1:10 to be considered)		
	• Professors		24 Sq.m each
	• Associate Professors		18 Sq.m each
	• Assistant Professors		15 Sq.m each
14.	Staff lounge		30 Sq.m-60sq.m
15.	Principal's cabin		30 Sq.m with waiting lobby
16.	Administration:		300 Sq.m
17.	Construction yard		200 Sq.m
18.	Corridors, Toilet, Staircase, Parking etc-As per building standards		

Recommended labs and studios

19.	Furniture studio	120 Sq.m
20.	Interior design studio	80 Sq.m
21.	Material museum	80 Sq.m
22.	Knitting lab	120 Sq.m
23.	Pattern making	80 Sq.m
24.	Lighting and illumination	100 Sq.m
25.	Acoustics studio	100 Sq.m
26.	Recommended Workshops	
	• <i>Model making</i>	200 Sq.m
	• <i>Carpentry</i>	200 Sq.m
	• <i>Metal craft</i>	200 Sq.m

Desirable activity spaces

27.	Stationary shop	30 Sq.m
28.	DTP	30 Sq.m
29.	OAT with stage	300 Sq.m
30.	Exhibition space	150 Sq.m
31.	Canteen	300 Sq.m
32.	Indoor Sports facilities	200 Sq.m

Hostel

33.	Boy's / Girl's Hostel (600 students, assume boys to girl ratio as 300:300)		
	• Single room with toilet	120 units (boys and girls 60 each)	15 Sqm/room
	• Double sharing with toilet	240 units (boys and girls 120 each)	30 Sqm/room
34.	Visitor's lounge		
35.	Audio visual room		
36.	Kitchen		
37.	Dining		
38.	Reading room		
39.	Store room		
40.	Indoor play area		
41.	Multipurpose room		

Facilities

42.	Gymkhana with Community Centre		
43.	Park and Tot-lots		
44.	Faculty and Staff Housing		
	• Director's bungalow		1 Nos.
	• Guest Rooms (15 Sq.m.) with Dining common dining facility		10 Nos.
	• 4 BHK (150 Sq.m.)		12 Nos.
	• 3 BHK – A (120 Sq.m.)		24 Nos.
	• 3 BHK – B (90 Sq.m.)		72 Nos.
	• Studio Apartments / Married hostels (30 Sq.m.)		20 Nos.
	• 1 BHK (Drivers/etc.) (30 Sq.m.)		10 Nos.
45.	Auditorium – 750 Seating		

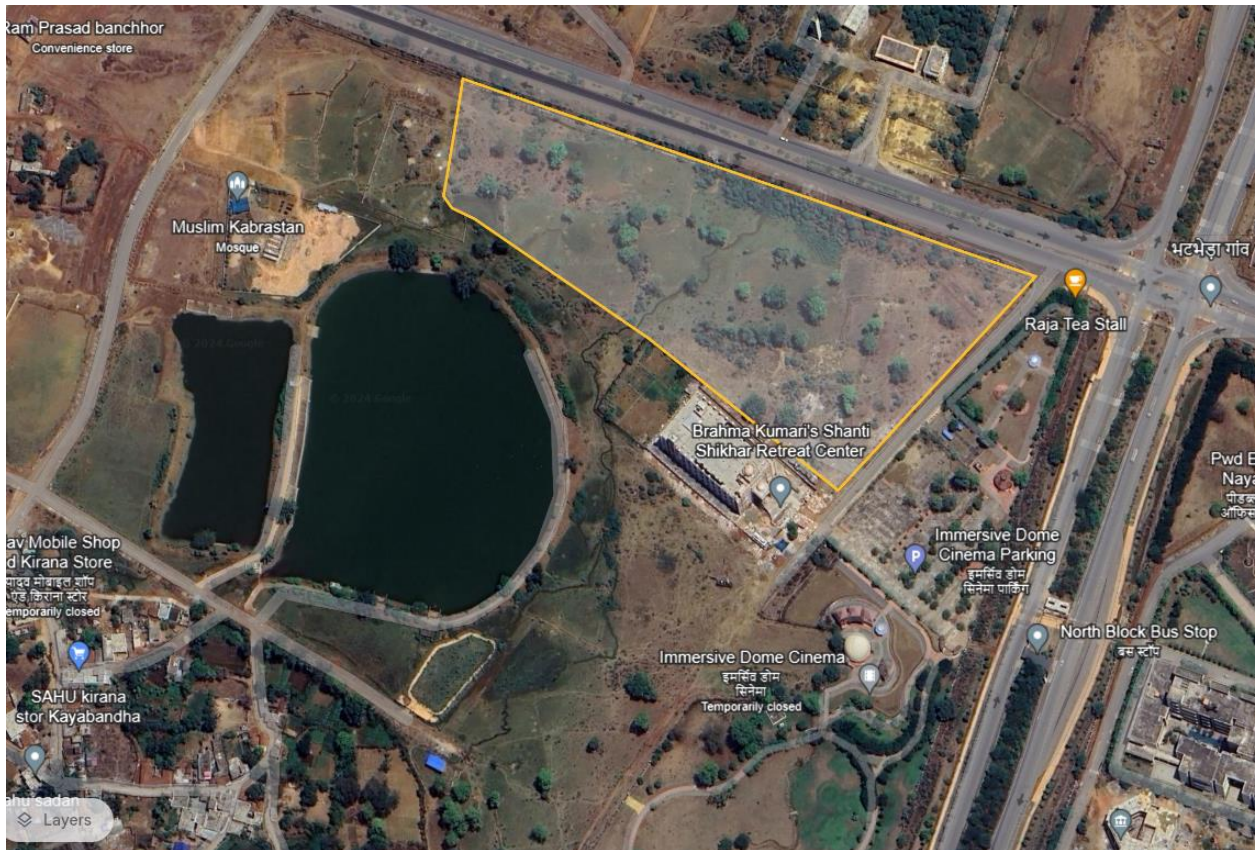
Others

46.	Security cabin
47.	Pump house
48.	Transformer yard
49.	Storm water drain/RWH
50.	STP

Site

Coordinates: 21°10'10"N 81°47'03"E 321 m

Site Extent: ~12.45 acres



IMPORTANT DATES

Week	Exercise	Mode of submission	Date
1	AD Exercises	Printed A1 Sheets and Google Classroom	04.01.2024 Submission: 16.01.2024
2	Introduction	-	18.01.2024
3	Literature, Programme Development, Site Analysis and Concept Development	Printed A1 Sheets and Google Classroom	Intro: 18.01.2024 Progress Review: 19.01.2024 Progress Review with marks: 25-26.01.2024 (5 Marks) Submission: 28.01.2024
4	Master Plan Development and Form Development (Concept level)	Printed A1 Sheets, Block Models and Google Classroom	Progress Review: 01-02.02.2024 Progress Review with marks: 08-09.02.2024 (5 Marks) Submission: 11.02.2024
5	Study Tour		03-14.02.2024 as per academic calendar
6	Case Study Sheets	Printed A1 Sheets, and Google Classroom	Review with marks: 15-16.02.2024 (5 Marks) Submission: 18.02.2024
7	Master Plan with Block level detail of individual areas (Conceptual functional Form development)	Printed A1 Sheets, Block Models and Google Classroom	Progress Review: 22-23.02.2024 Mid Semester Review with marks: 29.02.2024 – 01.03.2024 (10 Marks) Progress Review: 07-08.03.2024 Submission: 10.03.2024
8	Master Plan with focus on Housing Block Development	Printed A1 Sheets, Block Models and Google Classroom	Progress Review: 14-15.03.2024 Progress Review with marks: 21-22.03.2024 (5 Marks) Submission: 24.03.2024

9	Prefinal	Printed A1 Sheets, Block Models and Google Classroom	Progress Review: 28-29.03.2024 Progress Review with marks: 04-05.04.2024 (10 Marks) Submission: 24.03.2024
10	Final Internal jury with model	Printed A1 Sheets, Block Models and Google Classroom	Review with marks: 11-12.04.2024 (10 Marks) Submission: 24.03.2024
11	Submission for External jury	Printed A1 Sheets, Block Models and Google Classroom	Submission: 18-19.04.2024

Note: Total Internal Marks will be converted to 50. Total marks will be 100, including internal and External 100. All are requested to adhere to the submission dates strictly.

References:

1. Dechiara, J., Panero, J. and Zelnik, M. (2017). Time Saver Standards for Housing and Residential Development. McGraw-Hill Education - Second Edition.
2. Brooks, R. G. (1988). Site Planning: Environment, Process and Development. Michigan.
3. Clapham, D., Clark, W. A. V. and Gibbs, K. (2012). The Sage Handbook of Housing Studies. London: Sage Publications.
4. Correa, C. (2010). A Place in the Shade: The New Landscape and Other Essays. New Delhi: Penguin Books.
5. Ferre, A. and Tihamer, S. H. (2010). Total Housing: Alternatives to Urban Sprawl. New York: ACTAR Publishers.
6. Greater London Council. (1978). An Introduction to Housing Layout: A GLC Study. London.
7. Lee, K. E. (1984). Time Saver Standards for Site Planning. McGraw-Hill Ryerson.
8. Levitt, D. and Levitt, B. (2010). The Housing Design Handbook. New York : Routledge.
9. Root, B. J. (1985). Fundamentals of landscaping and site planning. AVI Publications.
10. Untermann, R. and Small, R. (1977). Site Planning for Cluster Housing. Van Nostrand Reinhold.