FACULTY OF
ARCHITECTURE
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PR2

tes121e

PROJECT II

CRN 22649

2024-2025 spring
monday - thursday 08:30-12:30

Assoc.Prof.Dr. H. Serdar KAYA
Res.Assist. Gamze Mestan

Syllabus
PROJECT II
https://sites.google.com/view/**hserdarkaya-itu-mim-tes2024**

FOUNDATION
STUDIO
2024-2025 spring

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FACULTY OF
ARCHITECTURE

PR2

Syllabus

PROJECT II

COURSE DESCRIPTION AND PURPOSE

The Project II course provides student the skills to research, analyze, plan and design while taking into regard the relation between humans, nature, culture, environment and function. Thinking critically, analyzing the urban fabric, conceptualizing, and interpreting as well as defining and solving functional and structural problems are key in this studio.
The main objective is to enable students to perceive, investigate, interpret, and analyze the relations humans have to space, to objects (products), and to the environment, in terms of both nature and culture, to develop and to increase the abilities and knowledge related to techniques and methods. By the end of the course, students will be able to develop design alternatives in relation with form, function and space in planning and design process.

COURSE CONTENT

This course consists of three modules. The assessment of each module is executed separately. The projects are expected to touch to the complementary themes (place, culture, parameters of design / structure, function, parametric design methods, etc.). The three modules provide a common ground for the students of faculty of architecture to explore and exchange ideas, skills and knowledge. In the entire module, the students will gain skills in developing design alternatives in relation with the natural, cultural and conceptual context and by taking into consideration the structural, material, construction parameters related to the scale of design. These projects enable students to understand the relationships between spatial structure, environment, function and culture.

The first module is common module with Architecture, Urban Planning, Industrial design and Interior design departments. The first week of the semester will be a workshop week wit al large group of CRNs and following two weeks will be executed as common module with a small group of CRNs from the Architecture and Industrial Design groups.
Other activities such as trips, lectures, seminars, juries are considered to support ongoing projects during the semester. The outcomes of these activities are exhibited in colloquium at the end of the semester. The participation to these outings and other activities are mandatory.

MODULE 1a | WEEK 1: COMMON MODULE WITH MIM, END, and ICM

TES_25 WoW!

A week of workshops where Architecture, Interior Design, Industrial Design and Urban and Regional Planning students collaborate and participate in 14 different workshops organized by guest tutors. Students will fill out an online wish list between 10-14 February 2025. Each student will enroll on one of five from their list; each workshop will have 15-20 students. The workshops will take place on the 17th and 20th, and the outcomes will be exhibited in the allocated studios on the 21st Friday

MODULE 1b | WEEKS 2-3: COMMON MODULE WITH MIM, and END

Memory/Transformation/Symbiosis: Design with nature

This common module is co-organized with Industrial Design and Urban and Regional Planning CRNs. Students will be working in their groups and will have a common crit day (06.03.2025) to share their research and makings. This module takes material explorations in focus, exploring materials in critical contexts and re-considering them in relation to memory, transformation, and symbiosis.

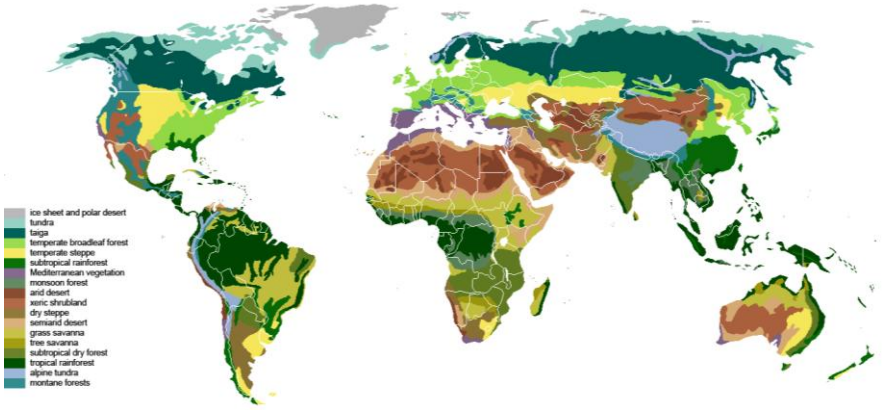
Experimenting with makings of materials, as in biomaterials and electronic waste products; hybridizing common-known materials of the building act and design with circular thinking and upcycling.

The common module focuses on the imbalance between human and environment. This is a multifaceted and broad topic which covers all kind of interaction between human and environment including the design process. As all human activities related to design is in essence a transformation of existing material, in this module, we will discuss the features, behaviors and uses of alternative materials to increase ecological potential of designs. Therefore, features and behaviors of the rich variety of materials, alternative uses, minimization of their carbon footprint via material selection, recycling, upcycling, natural climatization techniques and alternative solutions such as biomaterials in architecture will be the beginning of the discussion and exploration of problems and potentials.

MODULE 2 | WEEKS 4-6

DESIGN 4 EXTREMES

The second module aims to extend the knowledge on the role of environmental characteristics in the design process. Complexity of interaction between global changes, local characteristics and the responsive design process which covers natural, artificial and social systems in the local scale identify the extent of this module. The main task of the module 3 is designing a small architectural unit that is adapted to the selected harsh environment in the world.



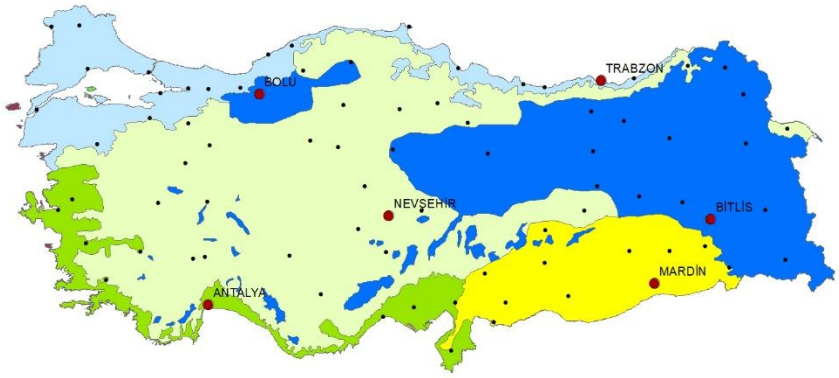
The effects of extreme conditions and local characteristics on architectural space and sensitivity to the natural environment will be main factors leading the design process.

MODULE 3 | WEEKS 8-15

DE-CODE/SIGN Urban pattern

Urban pattern is a result of dynamic and highly complex systems and rules which evolved through the time and related to the human, society and nature. Therefore, systematic and detailed analysis of the physical pattern would reveal many clues about the human, society and nature.
Physical spatial pattern of a settlement consists of natural elements, streets, city blocks, open spaces, plots, and buildings.

In this module we will explore urban systems and patterns in relation with the socio-cultural and geographical characteristics. The main task of the module is analyzing spatial pattern from different perspectives and scales covering nature-society-architecture-urban pattern interactions. This module focuses on decoding the clear or hidden patterns and problems of the historical city and improve a design solution as a new pattern to improve the quality of the settlement and public life.
Turkey has five main climate characteristics as hot-humid, hot-dry, moderate-dry, moderate-humid, and cold climate regions. Therefore, in this semester five historical patterns are selected as study area. These cities are: Antalya (hot-humid), Mardin (Hot-dry), Trabzon (Moderate-humid), Nevşehir (Moderate-dry), Bolu and Bitlis (Cold).



Given historical settlement patterns will be analyzed and new patterns will generated based on the spatial characteristics of the traditional pattern and spatial design standards.

COURSE LEARNING OUTCOMES

Students who satisfactorily complete the course will

1. Acquire experience in planning, design and composition in various scales and scopes,
2. Develop critical thinking skills,
3. Use basic techniques of research, analysis and synthesis for the solution of a given planning or design problem,
4. Establish connections of planning and design with natural and cultural contexts
5. Understand materials and develop construction systems in design in an integrated way,
6. Establish relations among design, its representations and production/construction

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WEEKLY SCHEDULE

W	Date	Study	Presentation	Course learning outcomes
1	17-Feb-25	**TES-25 WoW!** Workshop week		1,2,3
	20-Feb-25	**TES-25 WoW!** Workshop week		1,2,3
2	24-Feb-25	**Memory/Transformation/Symbiosis** Design with nature		4,5
	27-Feb-25	**Memory/Transformation/Symbiosis**		4,5
3	3-Mar-25	**Memory/Transformation/Symbiosis**		2,4,5
	6-Mar-25	**Memory/Transformation/Symbiosis** **Exhibition-presentation**		4,5,6
4	10-Mar-25	**DESIGN FOR EXTREMES** Assignment of the project themes: (World biomes: Arctic, desert, wetland, rainforest, Location choice, use, extreme conditions		1,2,3,4,5
	13-Mar-25	**The settlement eXtreme:** Nature, climate, Socio-spatial patterns, Passive climatization, vernacular and contemporary solutions **Submission of D4Extreme poster**		3,4,5
5	17-Mar-25	**Design for the extreme:** Literature review, design principles and concept, design alternatives		1,3,4,5
	20-Mar-25	**Design for the extreme**		2,4,5
6	24-Mar-25	**Design for the extreme**		1,4,5,6
	27-Mar-25	**JURY**		1-6
7	31-Mar-3-Apr-25	**Holiday**		
8	7-Apr-25	**DE-CODE/SIGN by P.L.O.T.S:** Introduction **Pattern Language Of Traditional Settlements**	**Urban Analysis**	1,2,3
	10-Apr-25	**DEcode urban pattern** **Urban systems:** Nature (Climate, topography, vegetation), transportation system, open spaces, Urban facilities, cultural features, historical values		1,2,3,4
9	14-Apr-25	**DeCode urban pattern** **Pattern explorations: Field Trip to Bursa**		1,2,3,4
10	17-Apr-25	**DEcode urban pattern** Urban pattern: Figure-ground, Architecture, streets and city blocks, parcels, open space system	**Density/pattern**	.2,3,4
	21-Apr-25	**DEcode urban pattern** Urban pattern: Density pattern, Architecture, Open space system, built environment		2,3,4
	24-Apr-25	**DEcode urban pattern:**Urban pattern: Architectural pattern, style, material, structure, geometry		2,3,5
11	28-Apr-25	**DEcode urban pattern** Architectural pattern, style, material, geometry **Synthesis**		2,3,5
	1-May-25	**Holiday**		
12	5-May-25	**JURY**		1-6
	8-May-25	**DeSign of urban pattern:** Design principles, parameters, design concept		1,2,3,4,5
13	12-May-25	**DeSign of urban pattern**		1,2,4,5
	15-May-25	**DeSign of urban pattern**		1,2,4,5
14	19-May-25	**Holiday**		
	22-May-25	**DeSign of urban pattern**		1,2,4,5,6
15	26-May-25	**DeSign of urban pattern**		1,2,4,5,6
	29-May-25	**JURY**		1-6

FOUNDATION STUDIO
2024-2025 spring

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STUDIO PROCESS & SUBMISSIONS

STUDIO HOURS and USE

The course will be held during the hours announced in the weekly program [Monday/Thursday, 08.30–12.30]. Course instructors and students will meet in the allocated studio(s) unless specified otherwise by the course instructors. Each student will have a designated work area during the studio hours. General assemblies or presentations related to the course may be held in the studio using a virtual platform or in one of the conference rooms in Taşkışla.

It is of utmost importance that students keep their working areas clean while in the studio and speckless at the end of the course. **The studio space will be used by another class after ours so it is courteous to evacuate on time with all belongings and trash.**

Please know and comply with TES Studio Principles.
https://tes.mim.itu.edu.tr/studio-principles/

ATTENDANCE

It is important that students attend all studio sessions. Attendance means being on time and present, actively participating in the activities held during the course hours under the direction of the studio instructors, taking part in discussions, and completing the assigned tasks during the term. There will be a variety of interactive formats so timeliness is essential for efficient planning and individuals' maximum benefit from peers and instructors. **A minimum of 80% attendance is mandatory for a passing grade in studio courses according to ITU Undergraduate Education Regulation Article 23 (Amended: RG-17/6/2021-31514). Please note that the designated 20% is reserved for sickness (including health reports) and other unforeseen circumstances.**

STUDIO TECHNOLOGY

Digital platforms will be used profusely during and outside of studio hours to communicate, conduct research, produce and share work. Ninova (CRN's class) will be used for announcements, access to live or recorded Zoom sessions if necessary, and digital submissions. Additionally, instructors may designate other platforms for announcements and sharing work. We also plan to use supporting platforms such as Google Drive, Miro, and Facebook to share work within the class community and collaborate. **It is highly advised that each student has a laptop computer with the necessary equipment**/ hardware. Students are advised to use a computer with access to WiFi, a camera, basic word and picture editing software, and sound features.

All work is to be produced in accordance with the media, material and format requirements set forth by the instructors in the class or in the announcements made through Ninova or other designated platforms.
All participants are expected to adhere to the codes of ethical conduct.
(https://odek.itu.edu.tr/en/code-of-honor/ethics-in-university-life)

DISCUSSIONS and PINUPS

Student works are commonly put under the spotlight for discussion. These discussions serve the purpose of articulating the assessment criteria and conveying suggestions for students to develop their proposals. In these open discussions, students are expected to develop critical perspectives and proactively voice them in the course.

JURY ASSESSMENT

The students are expected to express their works in front of jury. Juries compose of course instructors and invited jury members.

EXHIBITIONS

A selection of student projects will be exhibited digitally both during and at the end of the semester on suitable platforms.

EXCURSIONS

Excursions to online and physical venues, stage performances, film screenings, seminars, and webinars are encouraged, requiring full attentiveness, critical engagement and post-reflection.

JOURNAL

Students are expected to keep a written and visual log of their studio-related processes in a journal that includes sketches, notes and evolving design ideas for their projects. Students are encouraged to use various techniques (drawings, diagrams, collages, writing etc.) in representing their ideas and observations.

ANNOUNCEMENTS

All announcements will be made on the **Ninova** class interface. Students need to actively use their ITU usernames to access these and/or get related notifications from the ITU-Mobile app.

EVALUATION

Attendance means active participation in the course which comprises both attending the course, taking part in discussions, and completing the assigned tasks during the term. Students who do not meet these requirements will get a VF grade and not be able to make a final submission at the end of the semester.

In-term Grade includes the evaluation of projects undertaken within the modules during the semester.

End-term Grade corresponds to the Final Project submission on the date and time designated and in the format announced by the Faculty. Students who do not make a final submission will receive 0 (out of 100).

Project I Grade Assessment Criteria	**Quantity**	**Effects of Grading**
Projects (Midterm)	3	% 60
Final Project Submission	1	% 40

*If you are a student who will need accommodations in this class due to a disability or chronic health condition, we will need an accommodation letter from the Student Disability Center (SDC) before

they are implemented. Please share us the letter and/or to further discuss your needs.

READING LIST

Urban/Architectural/Landscape Pattern

1. Alexander, C. (1977). A pattern language: towns, buildings, construction, Oxford university press. https://www.patternlanguage.com/
2. Thiis-Evensen, T. (1987). Archetypes in architecture. Universitetsforlaget.
3. Duany, A., & Plater-Zyberk, E. (1991). Towns and townmaking principles (A. Krieger & W. Lennertz, eds.).
4. Duany, A. and E. Plater-Zyberk (1999). "The lexicon of the new urbanism." Duany Plater-Zyberk & Company.
5. Bacon, E. N. (1975). Design of cities, Thames and Hudson London.
6. Francis D.K. Ching, Architecture, Form, Space & Order, 1979
7. Francis D.K. Ching, Mimarlık ve Sanatta Yaratıcı bir Süreç: Çizim; çev. Çelen Birkan, YEM, 2003
8. Moughtin, C., Urban Design: Street and Square, Butterworth-Heinmann, İngiltere, 1992
9. Wong, W., Principles of Form and Design, John Wiley and Sons Inc., 1993
10. Norberg-Schulz, C. (1976). Genius loci: towards a phenomenology of architecture. Rizzoli.
11. The Nature of Order: An Essay on The Art of Building and The Nature Of The Universe, Book 1: The Phenomenon of Life
12. The Nature of Order: An Essay on The Art of Building and The Nature Of The Universe, Book 2: The Process of Creating Life
13. The Nature of Order: An Essay on The Art of Building and The Nature Of The Universe, Book 3: A Vision of a Living World
14. The Nature of Order: An Essay on The Art of Building and The Nature Of The Universe, Book 4: The Luminous Ground

Design For Extremes

15. Liedl, P., et al. (2012). Building to suit the climate: A Handbook, Walter de Gruyter.
16. Golany, G. (1983). Design for arid regions, Van Nostrand Reinhold.
17. Olgyay, V. (2015). Design with climate: bioclimatic approach to architectural regionalism. Princeton, Princeton University Press.
18. Littlefair, P., et al. (2000). Environmental site layout planning: solar access, microclimate and passive cooling in urban areas, CRC.
19. Bourbia, F. and F. Boucheriba (2010). "Impact of street design on urban microclimate for semi arid climate (Constantine)." Renewable Energy **35**(2): 343-347.
20. Margolis, L. and A. Chaouni (2015). Out of Water - Design Solutions for Arid Regions. Basel/Berlin/Boston, SWITZERLAND, Birkhäuser.
21. Smith, P. F. (2006). Architecture in a Climate of Change, Routledge.

Construction and material

22. Ballast, D. K. (2009). Architect's handbook of construction detailing, John Wiley & Sons.
23. Andrea Deplazes (ed.), Constructing Architecture: Materials, Processes, Structures, a Handbook, Birkhäuser, 2005
24. H. Leslie Simmons, Construction: Principles, Materials, and Methods, John Wiley, 2001
25. Gutdeutsch, G. and P. Lupton (1997). Building in wood: construction and details, Birkhäuser.
26. Kubba, S. (2012). Handbook of Green Building Design and Construction.

Saint Louis, UNITED STATES, Elsevier Science.
27. Watts, A. (2013). Modern Construction Handbook. Basel/Berlin/Boston, AUSTRIA, Birkhäuser.

Other resources to read

28. Bruno Zevi, (çev. D. Divanlıoğlu), Mimariyi Görmeyi Öğrenmek, Birsen Yayınları, 1990
29. Karatani, K., Kohso, S., & Speaks, M. (1995). Architecture as Metaphor Language, Number, Money.
30. Lauer, A.D., Pentak, S., Design Basics, 8th Edition, Wadsworth Publishing, 2011
31. Mohsen Mostafavi, David Leatherbarrow, Weathering: The Life of Buildings in Time, MIT Press, 1993
32. Paul Shepheard, What is Architecture?: An Essay on Landscapes, Buildings, and Machines, MIT Press, 1994
33. Reid, G,W., From Concept to Form in Landscape Design, Van Nostrand Reinhold, NewYork, 1993
34. Tufte, E. R., Envisioning information. Optometry & Vision Science, 68(4), 322-324., 1991
35. Watson,D., Plattus, A., Shibley, R., Time Saver Standarts For Urban Design, Mc Graw Hill Company, 2001
36. Chiara J.D., Panero, J., Zelnik, M., Time-Saver Standards for Housing and Residential Development, Mcgraw Hill, 1984
37. Styles, K., Working Drawings Handbook, London : Architectural Press, 1982
38. Joseph De C., Lee E. K., Time-Saver Standards for Site Planning, New York, Mcgraw- Hill, 1984
39. Şevki Vanlı, 20. Yüzyıl Türk Mimarlığı, 2006
40. Tschumi, B. (1996). Architecture and disjunction. MIT press.
41. Peter Zumtor, Thinking Architecture, Birkhäuser, 2006
42. Hunt, V., Environmental Graphics : Projects & Process, New York, NY,2003
43. Giritlioğlu, C., Şehirsel Mekan Öğeleri ve Tasarımı, İTÜ Mimarlık Fakültesi Yayını, 1998
44. Borges, J. L. Ficciones, Hayaller ve Hikâyeler, Çev. Fatih ÖzgüvenTomris Uyar, 2010
45. Calvino, I., Görünmez Kentler, çev. Işıl Saatçioğlu, Remzi Kitabevi, İstanbul, 1990
46. Çetiner, A., Şehir Planlamasında Çalışma Yöntemleri ve İfade Teknikleri, İ.T.Ü.,Mimarlık (Textbook) Fakültesi, Taşkışla, 1979.
47. Le Corbusier, Mimarlık Öğrencileriyle Söyleşi, YKY, 2007
48. Le Guin, Ursula, Mülksüzler, 2005
49. Merleau-Ponty, M., Algılanan Dünya, Çev. Ömer Aygün, İstanbul: Metis, 2005
50. Yürekli, F. (2010). Mimarlık, Mimarlığımız, YEM Yayınevi.
51. Robert Harbison, Thirteen Ways: Theoretical Investigations in Architecture, MIT Press, 1997
52. John Berger, Görme Biçimleri, Metis Yayınları, 1995