STRUKTUR KURIKULUM S1 ARSITEKTUR (REGULER/PARALEL)

KODE	MATA AJARAN	SUBJECT	CREDIT
CODE	**Semester 1**	**1st Semester**	
UIGE600002	MPK Terintegrasi B (Sains, Teknologi, Kesehatan)	Integrated Character Building B (Science, Technology, Health)	6
UIGE600003	Bahasa Inggris	English	3
ENGE600001	Kalkulus 1	Calculus 1	3
ENAR601001	Pengantar Arsitektur	Introduction to Architecture	3
ENAR601009	Desain Dasar 1	Basic Design 1	5
		Sub Total	**20**
	Semester 2	**2nd Semester**	
UIGE600001	MPK Terintegrasi A (Sosial-Humaniora)	Integrated Character Building A (Social-Humanities)	6
	Olah Raga/Seni	Sport/Arts	1
	Agama	Religion	3
ENGE600004	Aljabar Linear	Linear Algebra	4
ENAR602002	Desain Dasar 2	Basic Design 2	7
		Sub Total	**20**
	Semester 3	**3rd Semester**	
ENGE600005	Fisika Mekanika dan Panas	Mechanics and Thermal Physics	**3**
ENGE600006	Praktikum Fisika Mekanika dan Panas	Mechanics and Thermal Physics Laboratory	1
ENAR603003	Perancangan Arsitektur 1	Architectural Design 1	7
ENAR603010	Sejarah dan Teori Arsitektur 1	History and Theory of Architecture 1	3
ENAR603011	Metode Perancangan	Design Methods	3
ENAR603012	Teknologi Bangunan 1	Building Technology 1	3
		Sub Total	**20**
	Semester 4	**4th Semester**	
ENAR604004	Perancangan Arsitektur 2	Architectural Design 2	8
ENAR604013	Sejarah dan Teori Arsitektur 2	History and Theory of Architecture 2	3
ENAR604014	Teknologi Bangunan 2	Building Technology 2	3
ENAR604015	Media Desain Digital	Digital Design Media	3
	Pilihan	Elective	3
		Sub Total	**20**
	Semester 5	**5th Semester**	
ENAR605005	Perancangan Arsitektur 3	Architectural Design 3	9
ENAR605016	Teknologi Bangunan 3	Building Technology 3	3
	Pilihan	Elective	3
	Pilihan	Elective	3
		Sub Total	**18**
ENAR606006	Perancangan Arsitektur 4	Architectural Design 4	9
ENAR606017	Pengantar Konteks Perkotaan	Introduction to Urban Context	3
	Pilihan	Elective	3
	Pilihan	Elective	3
		Sub Total	**18**
	Semester 7	**7th Semester**	
ENAR607007	Perancangan Arsitektur 5	Architectural Design 5	9
	Pilihan	Elective	3
	Pilihan*)	Elective*)	2
		Sub Total	**14**
	Semester 8	**8th Semester**	
ENAR600008	Skripsi/Tugas Akhir	Undergraduate Thesis/Final Project	6
	Pilihan	Elective	3
	Pilihan**)	Elective**)	3
	Pilihan*)	Elective*)	2

		Sub Total	**14**
		Total	**144**

MATA KULIAH PILIHAN

Kode	Mata Kuliah	Elective Course	Credit
ENAR600018	Akustik	Acoustics	3
ENAR600019	Arsitektur di Kawasan Pesisir	Coastal Architecture	3
ENAR600020	Arsitektur Etnik	Ethnic Architecture	3
ENAR600021	Arsitektur, Kota, dan Kuasa	Architecture, City, and Power	3
ENAR600022	Arsitektur Pusaka	Heritage Architecture	3
ENAR600023	Ekologi Perkotaan	Urban Ecology	3
ENAR600024	Fabrikasi Digital	Digital Fabrication	3
ENAR600025	Fasad Bangunan Tinggi	High-Rise Building Façades	3
ENAR600026	Fotografi	Photography	3
ENAR600027	Geometri dan Arsitektur	Geometry and Architecture	3
ENAR600028	Keseharian dan Arsitektur	Everyday and Architecture	3
ENAR600029	Komunikasi Desain Digital 2D	2D Digital Design Communication	3
ENAR600030	Komunikasi Desain Digital 3D	3D Digital Design Communication	3
ENAR600031	Lingkungan Daur Hidup	Lifecycle Environment	3
ENAR600032	Manajemen Proyek Lanjut	Project Management	3
ENAR600033	Prinsip-prinsip Perancangan Kota	Urban Design Principles	3
ENAR600034	Perancangan Ruang Dalam	Interior Design	3
ENAR600035	Perancangan Ruang Luar	Site Planning and Design	3
ENAR600036	Perencanaan Kota	City Planning	3
ENAR600037	Psikologi Arsitektur	Architectural Psychology	3
ENAR600038	Real Estate	Real Estate	3
ENAR600039	Studi Kelayakan Proyek	Project Feasibility Study	3
ENAR600040	Tata Cahaya	Lighting Design	3
ENAR600041	Teori dan Metode Perancangan Lingkungan	Environmental Design Theories and Methods	3
ENAR600042	Teori Perumahan Kota	Urban Housing Theory	3
ENAR600043	Utilitas Bangunan	Building Utility	3
ENAR600044	Workshop Tektonik	Tectonic Workshop	3
ENAR600045	Kajian Mandiri	Independent Study	3
ENAR600046	Kajian Perancangan**)	Design Study**)	3
ENAR600047	Kapita Selekta	Capita Selecta	3
ENAR600048	Kerja Praktek/ KKN	Internship Program	3
ENAR600049	Topik Khusus Perancangan Arsitektur	Special Topic on Architectural Design	3
ENAR600050	Topik Khusus Perancangan Perkotaan	Special Topic on Urban Design	3
ENAR600051	Topik Khusus Perumahan dan Permukiman Perkotaan	Special Topic on Urban Housing and Settlement	3
ENAR600052	Topik Khusus Sejarah, Teori dan Kritik Arsitektur	Special Topic on Architectural History, Theory and Criticism	3
ENAR600053	Topik Khusus Teknologi Bangunan	Special Topic on Building Technology	3

COURSE DESCRIPTION: COMPULSORY COURSES

ENAR601009
ENAR611009
INTRODUCTION TO ARCHITECTURE
3 CREDIT UNITS

Learning Objective:
Student should be able to understand basic principles in architecture, including basic theories, the relationship between architecture and human, architecture and nature, architecture and aesthetic, and architecture and technology; able to understand the position of architecture position among other disciplines.

Syllabus:
What is architecture? (Introduction: Architecture as discourse, career in architecture, *arkhe* + *tekton*; *tekhne*; Laugier primitive hut and the idea of shelter)
Aesthetic (proportion; rhythm; scale; golden rules; aesthetic trinity of classic Greek; Mandala and Maya; Taoism and nature, mathematical pattern in geometry)
Form and Space (Plato and form; type and how Quatrèmere de Quincy mimic nature; form and function; various views on space and the different meaning of *raum* and *spatium*)
Materiality and Materialization (re-investigating *tekhne*; the importance of understanding the characteristic and potential of material, tectonic which does not limit to construction)
Context (understanding of natural environment, artificial environment, and built environment; our existence and place according to Heidegger; material and context)
Human and relationship with others I (the importance of understanding human for designer; understanding of human being; body, senses and space; personal space according to Hall)
Human and relationship with others II (space, the presence and the remoteness of people, the meaning of place for human)
Architects as profession

Prerequisites: -

References:

1. James O'Gorman, ABC of Architecture, University of Pennsylvania Press, 1998
2. Marcus Vitruvius Pollio, Decem Libri de Architectura, BiblioBazaar, 2008
3. Adrian Forty, Words and Buildings: a Vocabulary of Modern Architecture, Thames and Hudson, 2004
4. Yusuf B. Mangunwijaya, Wastu Citra, Gramedia Pustaka Utama, 1988
5. Martin Heidegger, Building Dwelling Thinking, in Poetry, Language, Thought, HarperPerennial, 1975
6. M. Merleau-Ponty, Phenomenologie de la Perception Chapter II, Routledge & Kegan Paul Ltd, 1962
7. Edward T. Hall, The Hidden Dimension, Doubleday, 1966

ENAR601001
ENAR611001
BASIC DESIGN 1
5 CREDIT UNITS

Learning Objective:
Student should be able to produce 2D and 3D works as creative responses towards contexts by appplying basic knowledge of visual art and design; Student should be able to acquire and apply basic 2D and 3D representational techniques.

Syllabus:
Basic knowledge of visual art and design, basic knowledge of aesthetic; basic knowledge of space; visual elements: shape, color, texture, etc; basic principles of composition; introduction to art history and its role in the making of art; basic drawing techniques: expression drawing; shape drawing (natural and manmade objects); basic modeling and assembling techniques; understanding characteristics of media and materials; perceiving visually and communicating what is perceived; display and layout techniques.

Prerequisites: -

References:

1. Louis Fisher Rathus, *Understanding Art*, Prentice Hall, 1994
2. Claire Holt, *Art in Indonesia, Continuity and Changes*, Cornel University,Ithaca and London, 1967
3. Johannes Itten, *The Elements of Color*, John Wiley & Sons, 1970
4. Harvard Anarson, *History of Modern Art: Painting, Sculpture, Architecture & Photography*, Prentice Hall, 1998
5. Kimberly Elam, *Geometry of Design: Studies in Proportion and Composition*, Princeton, 1998
6. Gyorgy Kepes, *Structure in Art and in Science,* George Braziller, 1965
7. Frank D. K. Ching, *Architecture: Form, Space & Order*, John Wiley & Son, 1997
8. John Heskett. *Design: A Very Short Introduction*. Oxford: Oxford University Press, 2002.

ENAR602002
ENAR612002
BASIC DESIGN 2
7 CREDIT UNITS

Learning Objective:
Student should be able to produce spatial works as creative responses towards contexts by applying knowledge of visual art and design and employed various 2D and 3D representation techniques; Student should be able to communicate architectural ideas by using appropriate techniques and media.

Syllabus:
Basic knowledge of relationship among space, human and time; Exploration of visual elements, non-visual elements (audio, kinesthetic) and moving elements (kinetics); creating spatial ideas as response to contexts; principles of architectural communication, basic architectural communication techniques: projection drawing, orthographic drawing, perspective drawing; modeling and assembling techniques; model making; understanding characteristics of media and materials; communicating object and space for various purpose and audiences; communicate human activity space.

Prerequisites: Student has taken Basic Design 1 (or Visual Art in 2012 Curriculum)

References:
1. Francis D.K.Ching, *Drawing & Perceiving: A Visual Dictionary of Architecture*, John Wiley & Sons, 1996
2. Francis D.K.Ching, *Architectural Graphics, 2nd Ed*, John Wiley & Sons, 2002
3. Francis DK Ching, *Drawing: A Creative Process*, Wiley, 1989
4. Paul Laseau and Norman Crewe, *Visual Notes for Architects and Designers*, Wiley, 1986
5. Jeffrey Balmer, Michael T. Swisher, *Diagramming the Big Idea: Methods for Architectural Composition*, Routledge, 2012
6. Mark Basinger, *Drawing Ideas*, Random House, 2013
7. Don Norman, *The Design of Everyday Things*, Basic Books, 2013
8. Atelier Bow Wow, *Graphic Anatomy,* Toto, 2007
9. Joy Monice Malnar, *Sensory Design,* University of Minnesota Press, 2004
10. Peter Zumthor, *Atmospheres: Architectural Elements, Surrounding Objects,* Birkhauser, 2006

ENAR603010
ENAR613010
HISTORY AND THEORY OF ARCHITECTURE 1
3 CREDIT UNITS

Learning Objective:
Student should be able to understand the history of modern architecture from 1750s to present.

Syllabus:
This course is a survey of modern architecture history from 1750s to present, with main focus on the development of modern architecture. This course also discusses the relationship between the development of architecture and its socio-cultural, political, and technological contexts. This course also investigates principles in architecture and design. It emphasizes on several important moments in the development of modern architecture, and provide knowledge on the theories that are relevant to modern architecture.

Prerequisites: -

Reference:

1. Kenneth Frampton, *Modern Architecture: A Critical History 3rd Ed*, Thames & Hudson, 1997
2. Leonardo Benevolo, *History of Modern Architecture, Volume I & II*, MIT Press, 1979
3. Iain Borden, *Architecture and the Sites of History, Interpretations of Buildings and Cities*, Butterworth Architecture, 1995
4. William J.R. Curtis, *Modern Architecture since 1900, Third Edition*, Phaidon Press, 2002
5. Diane Ghirardo, *Architecture After Modernism*, Thames & Hudson, 1996
6. Spiro Kostof, *A History of Architecture, Settings & Rituals, 2nd Edition*, Oxford University Press, 1994
7. Bernd Evers & Christof Thoenes (eds.), *Architectural Theory: from the Renaissance to the Present*, Taschen, 2003

ENAR603011
ENAR613011
DESIGN METHODS
3 CREDIT UNITS

Learning Objective:
Student should be able to understand the basic thinking and methods of designing built environment; student should be able to explain the basic thinking and apply one of the design methods through writings and drawings.

Syllabus:
Theory and method of thinking; phenomenology, semiotic; theory and method of identifying problems; architectural observation, design knowledge, factual, deontic, instrumental, black box, clear box; theory and method of understanding problems, analysis and synthesis; Theory and methods of problem solving.

Prerequisites: Student has taken Introduction to Architecture

Reference:

1. Christoper Alexander, *Notes on The Synthesis of Form*, Harvard University Press,1994
2. Don Koberg & Tim Bagnall, *The Universal Traveller: a Soft System Guide to Creativity, Problem Solving, & the Process of Reaching Goals*, Crisp Learning, 1991.
3. Gunawan Tjahjono, *Metode Perancangan: Suatu Pengantar untuk Arsitek dan Perancang*, 1998
4. Jean-Pierre Protzen & David J. Harris, *The Universe of Design: Horst Rittel's Theories of Design and Planning*, Routledge, 2010

ENAR604013
ENAR613013
HISTORY AND THEORY OF ARCHITECTURE 2
3 CREDIT UNITS

Learning Objective:
Student should be able to demonstrate knowledge of history of architecture in Indonesia from the end of 19th century to 20th century

Syllabus:
This course is a survey of history of architecture in Indonesia from the end of 19th century to 20th century. Various influences from overseas–India, China, Middle East and Western –take part in the development of architecture in Indonesia. Therefore it is important to understand Indonesian architecture and its relation with Non-Western and Western architecture, and architecture of various ethnic groups in Indonesia. Through discussion and analysis of buildings, drawings, photos and written materials, this course emphasizes on the interdependence among architecture, human, tropical climate, socio-culture background, politics and the development of technology in Indonesia.

Prerequisites: -

Reference:
1. Adolf Heuken SJ, *Tempat-Tempat Bersejarah di Jakarta*, Yayasan Cipta Loka Caraka, 1997
2. Helen Jessup, *Dutch Architectural Visions of the Indonesian Tradition*, Muqarnas v. 3, 1985, pp: 138-61.
3. Kemas Ridwan Kurniawan, *Postcolonial History of Architecture and Urbanism of Indonesian Tin Mining in Muntok Bangka*, VDM, 2011
4. Abidin Kusno, *Behind the Postcolonial: Architecture, Urban Space and Political Cultures in Indonesia,* Routledge, 2000
5. Scott Mirelles, *Historical Photographs of Batavia*
6. Rudolph Mrazek, *Engineers of Happy Land: Technology and Nationalism in a Colony*, Princeton University Press, 2002
7. Peter J.M Nas (ed.), *The past in the Present: Architecture in Indonesia*, NAi Publishers, 2006
8. Pauline Rosmaline, *Designing Colonial Cities: the Making of Modern Town Planning in the Dutch East Indies and Indonesia 1905-1950,* International Institute for Asian Studies the Newsletter 57, 2011
9. Iwan Sudradjat, *A Study of Indonesian Architectural History*, Ph.D Thesis at the Department of Architecture, University of Sydney, 1991
10. Yulianto Sumalyo, *Arsitek Kolonial Belanda dan Karya-karyanya*, Gama Press, 1992
11. Gunawan Tjahjono (ed), *The Indonesian Heritage Series*, Archipelago Press, 1998.
12. M. Nanda Widyarta, *Mencari Arsitektur Sebuah Bangsa; Sebuah Kisah Indonesia*, Wastu Laras Grafika, 2007
13. Yulia Nurliani Lukito, *Exhibiting Modernity and Indonesian Vernacular Architecture*, Springer VS, 2016

ENAR604015
ENAR614015
DIGITAL DESIGN MEDIA
3 CREDIT UNITS

Learning Objective:
Student should be able to express, explore, investigate and communicate architectural ideas by using digital media.

Syllabus:
Introduction to techniques and variety of digital media which can be applied to represent architectural ideas, investigate the basic abilities of various digital tools, choosing the appropriate digital tools and techniques to express, explore or investigate certain architectural ideas, studying the workflow of digital and analog media as a part of the architectural design process.

Prerequisites: Student has taken Basic Design 2 (or Architectural Communication Technique or Interior Architectural Communication Technique in 2012 Curriculum)

Reference:
1. L Farrelly, *Basic Architecture: Representation Techniques*. London, Thames&Hudson, 2008
2. B Kolarevic, (Ed), *Architecture in the Digital Age: Design and Manufacturing*, Spon Press, 2003
3. P Laseau, *Architectural Representation Handbook: Traditional and Digital Techniques for Graphic Communication*, McGraw-Hill Companies, 2000

ARCHITECTURAL DESIGN

Architectural design courses are the studio courses at the Department of Architecture. The studios denote learning locations as well as learning methods. At the end of studio-based learning process, students should be able to demonstrate their ability to think critically and creatively, which can be assessed from their ability to explain and present his/her design ideas. Architectural Design learning process is implemented through Design Projects, which are direct manifestations of integration of knowledge, consisting of:
- Factual knowledge: understanding and formulating design problems which are abstract, qualitative, and related to socio-cultural aspects of human/space activities
- The context and the environment of living space, ranging from micro/local/personal space, family, community, to urban/rural environment
- Technical aspects such as structure (statics), tectonics (including building materials), building physics, and building systems.
- Design methods

- Communication techniques

In practice, Design Projects accommodate learning materials from several courses: Architectural Design, Building Technology, and Introduction to Urban Context, within the following order:
- Design Project 1 integrates Architectural Design 1 and Building Technology 1
- Design Project 2 integrates Architectural Design 2 and Building Technology 2
- Design Project 3 integrates Architectural Design 3 and Building Technology 3
- Design Project 4 integrates Architectural Design 4 and Introduction to Urban Context

Gradual acquitison of knowledge and ability is structured within each stage of learning in Architectural Design in each semester.

DESIGN PROJECT 1
Design Project 1 focuses on the design of space for human self. Design Project 1 is an integration of knowledge on spatial design, based on the understanding of the relationship between human and space, basic structural logic, and basic principles of environmental comfort within spatial design. Design Project 1 consist of learning activities performed in two courses which complement each other, Architectural Design 1 and Building Technology 1.

ENAR603003
ENAR613003
ARCHITECTURAL DESIGN 1
7 CREDIT UNITS

Learning Objectives:
Student should be able to design a space for a single person, through understanding the relationship between human and space.

Syllabus:
Architectural Design 1 is an early and critical stage to introduce students to architecture through imaginative, creative, and innovative spatial design. Architectural knowledge encompasses basic comprehension about the personal spatial meaning and experience, interaction between human body and spatial quality, understanding of site and surrounding context as experienced by human body. Design activities consists of information gathering, formulation of design problem, analysis, and making critical decisions to formulate an active strategy toward human space, ability to think three-dimensionally through spatial design exploration, and communicating design ideas.
Design exercises consist of: Designing a simple space for a single person that is materialized through 1:1 scaled model; Designing a space for an episode of human life.

Prerequisites:
Students have taken Basic Design 2 (or Architectural Communication Technique or Interior Architectural Communication Technique in 2012 Curriculum)
Students have taken or are taking Building Technology 1

References:
1. Bruno Zevi, *Architecture as Space: How to Look at Architecture,* 1993.
2. Donlyn Lyndon and Charles W. Moore, *Chambers For A Memory Palace,* MIT Press, 1994
3. Edward T. Hall, *The Hidden Dimension*, Peter Smith Publications, 1992
4. Francis DK Ching, *Architecture: Form, Space and Order*, Wiley, 1996.
5. Karen Franck & Bianca Lepori, *Architecture Inside Out*, Academy Press, 2000.
6. Michael Pollan, *A Place of My Own*. Penguin Press, 2008.
7. Steen Eiler Rasmussen, *Experiencing Architecture*, MIT Press, 1959.
8. Yi-Fu Tuan, *Space and Place: The Perspective of Experience*, University of Minnesota Press, 1981

ENAR603012
ENAR613012
BUILDING TECHNOLOGY 1
3 CREDIT UNITS

Learning Objectives:
Students should be able to understand basic technical aspects of structure, material, construction, and building comfort; should be able to formulate technical design process and integration of structure and construction technologies into a functionally effective whole; should be able to produce a report of analysis and synthesis of all aspects of building technology.

Syllabus:
Structure in nature; Basic principle sof structure and construction (logic of structure, basic mechanics); Site context (natural elements that influence building); Building material (material use and position in building, material property values that influence comfort); Basic building physics (building orientation, environmental influence to comfort); Introduction to basic structure and construction principles of simple building; Introduction to working drawing.

Prerequisites: -

References:

1. Mario Salvadori, *Why Building Stands Up*, W.W. Norton & Company, 2002
2. W. O. Kilmer, *Construction Drawings and Details for Interiors: Basic Skills*, John Wiley and Sons, 2003
3. Bjorn N Sandaker, Arne P Eggen, and Mark R Cruvellier, *The Structural Basis of Architecture: Second Edition*, Routledge, 2011
4. Forest Wilson, *Structure: The Essence of Architecture*, Van Nostrand Reinhold Company, 1971
5. Mark Dekay and G. Z. Sun Brown, *Wind & Light: Architectural Design Strategies: 3rd Edition,* John Wiley & Sons, 2014
6. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014
7. Edward Allen and Joseph Iano, *The Architect Studio Companion: Rules of Thumb for Preliminary Design*, Wiley and Sons, 2002
8. Ken Parsons, *Humn Thermal Environments: The effects of Hot, Moderate, and Cold Environments on Human Health, Comfort, and Performance*, CRC, 2014
9. Pete Silver and Will McLean, *Introduction to Architectural Technology*. Laurence King, 2013

DESIGN PROJECT 2

Design Project 2 is about designing space for core social unit (family, a couple, etc). Design Project 2 integrates knowledge on spatial design based on the idea dwelling, the analysis of family life cycle and daily activities, application of basic structural principles and constructions of low rise building, building systems, and principle of building physics. Design Project 2 integrates the learning activities performed in two courses that complement each other, Architectural Design 2 and Building Technology 2.

ENAR604004
ENAR614004
ARCHITECTURAL DESIGN 2
8 CREDIT UNITS

Learning Objectives:
Students should be able to design a dwelling as a living space for core social unit through tectonic approach and by thorough consideration of the life cycle and daily activities of the core social unit.

Syllabus:
Architectural Design 2 proposes critical issues of human living space in urban community context, through the design of a dwelling. Design knowledge herewith includes the understanding concept of dwelling, observation and analysis of core social unit, formulating spatial program based on understanding of the needs of core social unit, development of spatial idea through tectonic exploration as *the art of joining* and exploration of spatial composition as an integration of *part-whole* that appropriately accommodate the programs, which are implemented into an integrated spatial

design and communicated by complying with standard principles of architectural communication.

Prerequisites: -
Students have taken Architectural Design 1
Students have taken or are taking Building Technology 2

References:

1. Martin Heidegger, *Building Dwelling Thinking, in Poetry, Language, Thought*, HarperPerennial, 1975
2. Adam Sharr with Simon Unwin, *Heidegger's Hut, in ARQ (Architectural Research Quarterly) Vol.5 No.1*, 2001
3. J Macgregor Wise, *Home: Territory and Identity pp. 391-396, in INTIMUS Interior Design Theory Reader,* 2006
4. Norberg Schulz, *The Concept of Dwelling - Introduction*, Rizzoli International Publications,1985
5. Hannah Arendt, *The Human Condition - Chapter I & II*, University of Chicago Press, 1958
6. A. Rapoport, *House Form and Culture - Chapter II Alternative Theories of House Form & Chapter III Socio-cultural Factors and House Form, pp. 18-82*, Prentice Hall Inc, 1969
7. Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction – Chapter I Introduction: Reflections on the Scope of the Tectonic*, MIT Press, 2001
8. Charles Moore, Gerrad Allen, Donlyn Lyndon, *Assembling A Room, in The Place of Houses*, University of California Press, 2000
9. Francis D. K. Ching, *Architecture: Form, Space and Order*, Wiley, 2014
10. Erik H. Erikson, *Life Cycle Completed - Chapter 3 Major Stages in Psychosocial Development*, W. W. Norton & Company, 1998
11. Jonathan Hill, *Immaterial Architecture – House and Home,* Routledge, 2006
12. Peter Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects*, Birkhäuser Architecture, 2006

ENAR604014
ENAR614014
BUILDING TECHNOLOGY 2
3 CREDIT UNITS

Learning Objectives:
Students should be able to understand technical aspects of structure, material, construction, and building comfort for low rise building; should be able to formulate technical design process and integration of structure, construction technologies and building systems into a functionally effective whole; should be able to produce a report of analysis and synthesis of all aspects of building technology.

Syllabus:
Identification of all aspects of building technology in a simple low rise building that include: structural logic, buildability, and comfort; Introduction to in-depth knowledge on the materiality of material, construction techniques and details; Dimension and configuration of materials and their relation to structure and construction of simple building; Elements of air conditioning and lighting in a building; Introduction to basic knowledge of building utility; Creating technical documentations (working drawing).

Prerequisites: -
Students have taken Building Technology 1
Students have taken or are taking Architectural Design 2

References:

1. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014
2. Arthurs Lyons, *Materials for Architect & Builders*, Butterworth-Heinemann, 2008
3. Graham Bizley, *Architecture in Details*, Architectural Press, 2008
4. Andrea Deplazes, *Constructing Architecture: Materials Processes Structures, A Handbook*, Birkhauser, 2008
5. Gail Peter Borden, *Material The Typology of Modern Tectonics*, Wiley, 2010
6. Thomas Schropfer, *Material Design*, Birkhauser Architecture, 2010
7. Norbert Lechner, *Heating, Cooling, Lighting: The Sustainable Design Methods for Architect*, Wiley, 2013
8. Charlie Wing, *How Your House Works: a Visual Guide to Understanding and Maintaining Your Home, Updated and Expanded,* RSMeans, 2012

9. Corky Binggeli, *CorkyBuilding Systems for Interior Designers*, John Wiley & Sons, 2003

DESIGN PROJECT 3

Design Project 3 is studio that focuses on aspects of buildability and building performances. Design Project 3 is an integration of design knowledge through technological approach, implementation of structural principles, construction and material, building supporting system and the use of technology in the design process. Design Project 3 integrates the learning activities performed in two courses that support each other, Architectural Design 3 and Building Technology 3.

ENAR605005
ENAR615005
ARCHITECTURAL DESIGN 3
9 CREDIT UNITS

Learning Objectives:
Students should be able to design a building based on the development of technological ideas.

Syllabus:
Architectural Design 3 proposes the critical issues on the aspects of buildability and building performance. Design knowledge includes the development of advanced tectonic ideas, encompassing exploration of material, detail and construction, and the development of architectural ideas based on building performance and system. Knowledge of site and environment includes the contextual explanation of design through the understanding of the site physical condition and consideration of sustainability. Knowledge on the role of technology in architectural design process in terms of representation, modeling and simulation.

Prerequisites:
Students have taken Architectural Design 2
Students have taken or are taking Building Technology 3

References:
1. Chris Abel, *Architecture, Technology and Process*, Architectural Press, 2004.
2. Ed van Hinte et al, *Smart Architecture*, 101 Publishers, 2003.
3. Robert Kronenburg & Filiz Klassen, *Theory, Context, Design and Technology – Trasnportable Environments 3*, Taylor & Francis, 2006.
4. Pete Silver and Will McLean, *Introduction to Architectural Technology*, Laurence King Publishing, 2013.
5. Bjorn Sandaker, *On Span and Space: Exploring Structures in Architecture*, Routledge, 2008
6. Branko Kolarevic and Ali Malkawi, *Performative Architecture: Beyond Instrumentality*, Spon Press, 2005

ENAR605016
ENAR615016
BUILDING TECHNOLOGY 3
3 CREDIT UNITS

Learning Objectives:
Students should be able to understand technical aspect of structure, material, construction, and building comfort for advanced building (high rise/wide span building); should be able to formulate technical design process and integration of structure, construction technology and utility system as a functionally effective whole; should be able to formulate utility system, transportation and communication system, building maintenance and safety; should be able to perform technical documentation and to create analysis/synthesis report from all aspect of building technology; should be able to understand energy conservation issues and ecological sustainability.

Syllabus:
Advanced building structure (wide span and/or high rise); Building system, advanced utility system (comfort, transportation, communication, maintenance, and building safety); Sustainable building energy conservation; Basic knowledge of ecological sustainability issues.

Prerequisites:
Students have taken Building Technology 2
Students have taken or are taking Architectural Design 3

References:

1. Yonca Hurol, *The Tectonic sof Structural Systems: An Architectural Approach*, Routledge, 2015
2. D Schodek, *Structures, 7th Edition*, Prentice Hall, 2013
3. Chris Lefteri, *Materials for Design*, Laurance King Publishing, 2014
4. Bjarke Ingels, *Big, Hot To Cold: an Oddsey of Architectural Adaptation,* Taschen, 2015
5. Farshid Moussavi, *The Function of Form*, Harvard Graduate School of Design, 2009
6. William McDonough and Michael Braungart, *The Upcycle: Beyond Sustainability: Design for Abundance*, North Point Press, 2013
7. Rob Thompson, *Sustainable Materials, Processes and Production*, Thames and Hudson, 2013
8. Wolfgang Schueller, *Highrise Building Structures*, John Wiley and Sons, 1977
9. Thomas Hootman, *Net Zero Energy Design: A Guide for Commercial Architecture*, Wiley, 2012
10. Pete Silver and Will McLean, *Structural Engineering for Architect: A Handbook*, Laurence King, 2014
11. Esther Rivas Adrover, *Deployable Structures*, Laurance King, 2015
12. Dwi Tangoro, *Utilitas Bangunan*, UI Press, 2004

DESIGN PROJECT 4

Design Project 4 focuses on the design of public space. It integrates architectural typology-based design method, issue-based design and basic knowledge of urban context. Design Project 4 integrates the learning activities performed in two courses that support each other, Architectural Design 4 and Introduction to Urban Context.

ENAR606006
ENAR616006
ARCHITECTURAL DESIGN 4
9 CREDIT UNITS

Learning Objectives:
Students should be able to design public space through architectural typology-based design approach, issue-based design approach and creative exploration of architectural form and spatial quality.

Syllabus:
Architectural Design 4 proposes the critical issues of human living space with socio-cultural complexities as found in urban/suburban context, through two approaches: a) top-down approach through the exploration of design ideas based on typology, and b) bottom-up approach through exploration of issue-based design ideas. Design knowledge herewith consist of the understanding of the concept of *public*, analysis of functional types, spatial programming, the concept of institution and how it is elaborated into spatial design, the formulation of initial statement based on issues, development of architectural programs and how they are elaborated into spatial design. Knowledge of site and environment includes the contextual explanation of the design through the understanding toward site physical condition, urban socio-cultural context, and consideration of sustainability.
Design assignments consist of: Designing space within social environment context with a close kinship; Designing space in more complex urban environmental context.

Prerequisites:
Students have taken Architectural Design 3
Students have taken or are taking Introduction to Urban Context

References:

1. Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture*, *Chapter 'Space', hal. 256-275*, Thames & Hudson, 2000
2. Yi-Fu Tuan, *Space and Place: The Perspective of Experience,* University of Minnesota Press, 1981
3. Henri Lefebvre, *The Production of Space*, Blackwell, 1991
4. Jeremy Till, *Architecture Depends*, MIT Press, 2009
5. Karen Franck & Bianca Lepori, *Architecture Inside Out*, Academy Press, 2000

6. Giulio Carlo Argan, *On the Typology of Architecture, in Nesbitt, Theorizing a New Agenda for Architecture hal. 240-246*, Princeton Architectural Press, 1996
7. Jonathan D. Sime, *Creating Places or Designing Spaces*, Journal of Environmental Psychology, Vol 6, hal. 49-63, 1986
8. Andrew Ballantyne, *What is Architecture?,* Routledge, 2002
9. Aaron Betsky & Erik Adigard, *Architecture Must Burn: Manifestos for the Future of Architecture*, Gingko Press, 2001
10. Robert Venturi & Denise Brown, *Learning from Las Vegas*, MIT Press, 1977
11. Jane Jacobs, *The Death and Life of Great American Cities*, Random House, 1961
12. Bernard Tschumi, *Architecture and Limits I-III, in Nesbitt, Theorizing a New Agenda for Architecture hal. 150-167*, Princeton Architectural Press, 1996
13. Bauman Lyons Architects, *How to be a Happy Architect*, Black Dog Publishing, 2008

ENAR606017
ENAR616017
INTRODUCTION TO URBAN CONTEXT
3 CREDIT UNITS

Learning Objectives:
Student should be able to know and understand basic knowledge about physical urban forms, and able to implement and apply building rules and codes in design building in urban context.

Syllabus:
Basic principles and issues on urban physical forms: Cities, growth and development, urban physical form and urban physical development, planned and unplanned urban development, site planning and design.

Prerequisites:
Students have taken or are taking Architectural Design 4

References:
1. *Journal of the American Planning Association* (sesuai topik bahasan)
2. Jane Jacobs, *The Death and Life of Great American Cities*, Random House, 1961
3. Spiro Kostof, *The City Assembled: The Elements of Urban Form Through History*, Thames and Hudson, 1992
4. Richard T LeGates and Frederic Stout (eds.), *The City Reader*, Routledge, 2003
5. Lewis Mumford, *The Urban Prospect*, Harvest Book, 1968

ENAR607007
ENAR617007
ARCHITECTURAL DESIGN 5
9 CREDIT UNITS

Learning Objective:
Students should be able to create architectural design based on particular design method; should be able to produce design ideas that demonstrate buildability and compliance to general building codes; should be able to demonstrate the application of advanced knowledge of structural principles, tectonic principles of construction detail and building utility system.

Syllabus:
Designing with particular approach or method within design units. Design units offered may include but not limited to: typology-based design; evidence-based design; architectural design as part of urban context; architectural design with technology, computation, or parametric approach. Knowledge and implementation of building codes that include safety, security, health, comfort, and accessibility. Design communication that comply with standard drawing convention. Awareness and understanding of role of various disciplines of design, construction, mechanical and electrical in architectural design process.
Prerequisites:
Students have taken Architectural Design 4

References:

1. Bryan Lawson, *How Designers Think*, Architectural Press, 2005.
2. Michael Hensel, *Performance-Oriented Architecture: Rethinking Architectural Design and the Built Environment*, Wiley, 2013.
3. Bernard Leupen, *Time-Based Architecture*, 101 Publishers, 2005.
4. Herman Hertzberger, *Space and the Architects*, 101 Publishers, 2000
5. Other reference relevance for Architectural Design.

ENAR600008
ENAR610008
UNDERGRADUATE THESIS
6 CREDIT UNITS

Learning Objectives:
Student should be able to identify, study and communicate issues within specific area of study related to architecture; able to develop basic skills in scientific reading, researching and writing; able to develop understanding of research as an activity that requires systematic and logical thinking; able to develop critical understanding of various architectural issues.

Syllabus:
The thesis begins with an inquiry into what the student wishes to study in depth. It involves the understanding of issues and explanation of the understanding with limited depth level. At this level, the student is neither required to solve a problem nor create or invent something new that would contribute to the discipline architecture. Simple investigation is performed through literature search and/or case studies. Originality. Modes of writing: descriptive, narrative, explanatory or argumentative.

Prerequisites: -
Students have earned 114 credit units and have taken Architectural Design 4

References:

1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. David Evans & Paul Gruba, *How To Write A Better Thesis Dissertation*, Springer, 2014
3. F. Crews. *The Random House Handbook, ed, pgs 10-114*, McGraw-Hill Higher Education,1992
4. I. Border and K. Ruedi, *The Dissertation: an Architecture Student's Handbook*, Oxford University Press, 2000.
5. T. Y. Hardjoko, *Panduan Meneliti dan Menulis Ilmiah*, Departemen Arsitektur Universitas Indonesia, 2005

ENAR600008
ENAR610008
FINAL PROJECT
6 CREDIT UNITS

Learning objectives:
Student should be able to identify, study and communicate issues within specific area of study related to architecture; able to develop basic skill in analyzing and synthetizing theory and demonstrate it through design; able to develop understanding of research as an activity that requires systematic and logical thinking; able to develop critical understanding of various architectural issues.

Syllabus:
The thesis begins with an inquiry into what the student wishes to study in depth. It involves the understanding of issues and explanation of the understanding with limited depth level, which is demonstrated through architectural design.

Prerequisites:
Students have earned 114 credit units and have taken Architectural Design 5

References:

1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. I. Border and K. Ruedi, *The Dissertation: an Architecture Student's Handbook*, Oxford University Press, 2000.
3. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
4. Iain Border and Katarina Ruedi, *The Dissertation: an Architecture Student's Handbook*, Oxford University Press, 2000.
5. Murray Fraser, *Design Research in Architecture*, Ashgate Publishing, 2013

COURSE DESCRIPTION: ELECTIVE COURSES

ENAR600018
ENAR610018
ACOUSTICS
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand basic principles of acoustic in space and environment; able to conduct analysis in order to create good acoustic design.

Syllabus:
Basic acoustics, characteristics of sounds, acoustic criteria in space, sound intensification and sound isolation, environmental noise.

Prerequisites: -

References:
1. Leslie L. Doelle & Lea Prasetio, *Akustik Lingkungan*, Erlangga,1993
2. PH Parkin & HR Humpreys, *Acoustics Noise and Buildings*, Faber and Faber Ltd, 1984
3. Finarya Legoh & Siti Hajarinto, *Buku Ajar AKUSTIK*, 2002

ENAR600019
COASTAL ARCHITECTURE
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand the relationship between spatial temporal, cultural, and eco-athropomorphic systems changes in coastal areas. Such understanding would contribute to awareness to integrate eco-anthroposystem ideas into architectural design in coastal areas; Student should be able to systematically express their own understanding and awarenees of design issues in coastal context.

Syllabus:
Water and architecture, basic understanding and knowledge of coastal area, continental area, sea, archipelago, spatial-temporal-cultural aspects, coastal eco-anthroposystem, the effect of island-sea interactions to coastal living-livelihood, spatial planning, facilities and architecture of coastal areas, the dynamics of dwelling and dwelling form in Indonesian coastal areas, climate change and disaster risk in Indonesian coastal area, spatial-temporal-cultural changes and eco-anthroposystem in certain Indonesian coastal area, the role of architects in coastal spatial planning and the future of coastal architecture.

Prerequisites: -

References:
1. Abimanyu Takdir Alamsyah, *Regionisme dalam Penataan Permukiman di Gugus Pulau Mikro*, unpublished doctoral dissertation, PSIL Universitas Indonesia, 2006
2. Abimanyu Takdir Alamsyah, *Menata Permukiman Pulau-Laut, Mempertahankan Keberlanjutan Bertanahair Kepulauan*, Pidato pengukuhan Guru Besar Universitas Indonesia. Depok, 2009
3. Michael R. Bloomberg and Amanda M. Burden, *Urban Waterfront Adaptive Strategies in Waterfront Vision & Enhancement Strategy,* NYC Planning, 2013

4. Subandono Diposaptono and Budiman, *Tsunami*, Penerbit Buku Ilmiah Populer, 2006
5. Charles Moore and Jane Lidz, *Water + Architecture*, Thames and Hudson Ltd, 1994
1. Malcolm Newson, *Land, Water and Development: River Basin Systems and their Sustainable Development*, Routledge,1992
2. Koen Olthuis and David Keuning, *Float!. Building on Water to Combat Urban Congestion and Climate Change*, Frame Publishers, 2010
3. Djoko Pramono, *Budaya Bahari*, Gramedia Pustaka Utama, 2005
4. Alan P. Trujillo and Harold V. Thurman, *Essentials of Oceanography, Ninth Edition*, Pearson Education *Ltd, 2008*
5. Heather Vies and Tom Spencer, *Coastal Problems: Geomorphology, Ecology and Society at the Coast*, Edward Arnold, 1995
6. Ary Wahyono, AR Patji, SS Laksono, R. Indrawasih, Sudiyono dan Surmiati Ali, *Hak Ulayat Laut di Kawasan Indonesia Timur*, Media Presindo Yogjakarta, 2000

ENAR600020
ENAR610020
ETHNIC ARCHTECTURE
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand various aspects of architecture which arise from ethnic groups' traditions in order to explain and analyse elements and principles of architecture from particular ethnic group; able to comprehend the phenomena of ethnic architecture in general and to analyze architecture tradition of particular ethnic group.

Syllabus:
Understanding of principles and elements of ethnic architecture, forming factors, symbolic classification, cosmological view and worldview, space, place, time, meaning, anthropomorphic, building process.

Prerequisites: -

References:
1. Amos Rapoport, *House Form and Culture*, Englewood Cliffs, 1960
2. N. Egenter, *Architectural Anthropology,* Structura Mundi, 1996
3. John Hutchinson (ed.), Anthony D. Smith (ed.), *Ethnicity*, Oxford University Press, 1996
4. Roxanna Waterson, *The Living House: An Anthropology of Architecture in Southeast Asia*, Oxford University Press, 1990
5. Rodney Needham , *Symbolic Classification*, Scott Foresman Trade, 1979
6. J. Fox (ed.), *Inside Austronesian House*, The Australian National Uni- versity, 1993
7. Bourdier & N.AlSayyad (eds), *Tradition, Dwellings and Settlements: Cross-cultural Perspectives*. University Press of America, 1989

ENAR600021
ARCHITECTURE, CITY AND POWER
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand the role of architecture, planning and design within and between urban contexts; should be able to improve their understanding on the relationship between built environmental design and power; should be able to increase awareness of the intertwining relationship between architecture, social aspects, political aspects, economy, and culture; should be able to understand that built environment is conceived out of, and would yield particular power relation amongst the users in a specific context.

Syllabus:
The role of architecture and planning in the broader context. The relationship between design and power. Syllabus is prepared according to the themes related to the aforementioned relationship, which includes the following themes: Architecture and consumption, poverty and inequality; informality, disasters, theme parks/leisure, space of colonial/ post-colonial/nation/globalization/neoliberalism; spatial enclaves/zone/segregation based on gender, race and eth-

nicity, social class, religion, spatial justice; housing and infrastructure.

Prerequisites: -

References:

1. Benedict Anderson, *Language and Power: Exploring Political Culture in Indonesia*, Ithaca: Cornell University Press, 1990 (esp. chapter "The Idea of Power in Javanese Culture")
2. James D Faubion, *Michel Foucoult: Power, Essential Works of Foucault 1954-1984, New York: The New Press, 1997*
3. Kim Dovey, *Framing Spaces: Mediating Power in Built Form*, New York: Routledge, 1999
4. Lawrence Vale, *Architecture, Power and National Identity*, Routledge, 2002 (2nd ed)
5. Abidin Kusno, *Behind the Postcolonial: Architecture, Urban Space and Political Culture in Indonesia,* Routledge, 2000
6. *Abidin Kusno, After the New Order: Space, Politics and Jakarta,* University of Hawaii Press, 2013
7. Brenda S.A Yeoh, *Contesting Space in Colonial Singapore: Power Relations and the Urban Built Environment*, Singapore University Press, 2003
8. Nezar AlSayyad (ed), *Forms of Dominance: On the Architecture and Urbanism of Colonial Enterprise*, Avebury, 1992
9. Gwendolyn Wright, *The Politics of Design in French Colonial Urbanism*, Chicago: The University of Chicago Press, 1991
10. David Harvey, *Spaces of Hope*, University of California Press, 2000
11. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, 1998
12. James Holston, *The Modernist City: an Anthropological Critique of Brasilia*, The University of Chicago Press, 1989
13. Janice E. Perlman, *Favela: Four Decades of Living on the Edge in Rio de Janeiro,* Oxford University Press, 2010
14. Mike Davis, *Evil Paradise: Dreamworlds of Neoliberalism*, The New Press, New York, 2007
15. Nezar AlSayyad & Ananya Roy, *Urban Informality: Transnational Perspectives from the Middle East, Latin America and South Asia*, New York: Lexington Book, 2004
16. Rafi Segal and Eval Weizman, *Civilian Occupation: the Politics of Israeli Architecture*, Babel and Verso, 2003
17. Teresa Caldeira, *City of Wall*, University of California Press, 2000
18. Don Mitchell, *The Right to the City: Social Justice and the Fight for Public Space*, The Guildford Press, 2003
19. Edward S. Popko, *Transition: A Photographic Documentation of a Squatter Settlement*, McGraw-Hill, 1978
20. Justin Mc Guirk, *Radical Cities: Across Latin America in Search of New Architecture,* London: Verso, 2014
21. David Harvey, *Rebel Cities: From The Right to The City to The Urban Revolution,* London: Verso, 2012
22. Marshall Berman, *All That is Solid Melt into Air: The Experience of Modernity*, New York: Penguin Books, 1982
23. Leopold Lambert, *Weaponized Architecture: The Impossibility of Innocence,* DPR-Barcelona, 2013
24. Andy Merrifield, *Metromarxism: A Marxist Tale of the City*, New York: Routledge, 2001
25. Nezar AlSayyad & Mejgan Massoumi (eds), *Fundamentalist City? Religiousity and the Remaking of Urban Space*, London: Routledge, 2011
26. Edward W. Soja, *Seeking Spatial Justice,* University of Minnesota Press, 2010
27. Faranak Mirahtab & Neema Kudva (eds), *Cities of the Global South Reader,* Routledge, 2015
28. Etienne Turpin, et.al, *Jakarta: Architecture & Adaptation*, Jakarta: Universitas Indonesia Press, 2013 (esp. chapters Introduction and sections on interviews)
29. AbdouMaliq Simone, *Jakarta Drawing the City Near*, University of Minnesota Press, 2014
30. and various movies related to themes and learning objectives

ENAR600022
HERITAGE BUILDING
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand the definition and issues in heritage and conservation of architecture from the past, in particular heritage building and heritage site.

Syllabus:
Introduction to heritage architecture, including tangible and intangible aspects, Outstanding Universal Value from heritage building and heritage site. Discussion on critical issues related to heritage in architecture and city. Introduction to conservation strategies including data collection, documentation, planning, protection, development and reuse of heritage building and heritage site. Discussion on precedents of conservation in Indonesia.

Prerequisites: -

References:

1. Bernard M Feilden, *Conservation of Historic Building*, Butterworth-Heinemann Ltd, 1994
2. *Pengantar Panduan Konservasi Bangunan Bersejarah Masa Kolonial*, Pusat Dokumentasi Arsitektur dan Badan Pelestarian Pusaka Indonesia, 2011
3. Undang-undang Republik Indonesia Nomor 11 Tahun 2010 tentang Cagar Budaya
4. Peraturan Daerah Daerah Khusus Ibukota Jakarta Nomor 9 Tahun 1999 Tentang Pelestarian dan Pemanfaatan Lingkungan dan Bangunan Cagar Budaya
5. Amorim, Luiz et. Al. 'Preserving Space'. *Proceedings 6th International Space Syntax Symposium, Istanbul*, 2007 pp. 032-01 – 032-14.
6. Jean-Paul Corten et.al, *Heritage As An Asset for Inner-City Development: An Urban Manager's Guide Book*, Ammersfoort: Cultural Heritage Agency, nai010 Publishers, 2015
7. Fernando Diez, 'Heritage', dalam Cairns, Stephen, Crysler, Greig C., Heyne, Hilde. *The SAGE Handbook of Architectural Theory*. SAGE Publications, 2012, pp 274 – 86.
8. Peter J. Larkham, 'Conflict and Conservation' in *Conservation and the City*, Routledge, 1996, pp 3 – 30.
9. Adolf SJ Heuken, *Tempat-tempat Bersejarah di Jakarta*, Cipta Loka Caraka, 1997

ENAR600023
URBAN ECOLOGY
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand principles of ecological architecture, architectural works which consider socio-cultural values, environmental sustainability, and holistic mode of thought in designing a building or an area.

Syllabus:
Ecological functions that are able to 'provides' for the primary needs of city inhabitants, including clean water, waste disposal management, air pollution, transportation, and green spaces.

Prerequisites: -

References:

1. Amos Rapoport, *Human Aspects of Urban Form: Towards a Man Environment Approach to Urban Form and Design*, Pergamon Press, 1997
2. Amos Rapoport, *The Meaning of The Built Environment: A Non Verbal Communication Approach*, Sage Publication, 1982
3. Graham Haughton et al, *Sustainable Cities*, Cromwell Press, 1994
4. Iftikar Ahmed, ed, *Beyond Rio: The Environmental Crisis and Sustainable Livelihoods in the third world*, MacMilan Press, 1995.
5. Moh. Soeryani, ed, *Lingkungan: Sumberdaya Alam dan Kependudukan dalam Pembangunan*, UI Press, 1987

ENAR600024
DIGITAL FABRICATION
3 CREDIT UNITS

Learning Objectives:
Student should be able to use digital fabrication equipment as a part of design process using various modeling approaches and tools.

Syllabus:
Introduction to fabrication process in architectural design, modeling technique, parametric approach.

Prerequisites:
Student have taken Design and Digital Media; Have basic skill in using architectural modeling software (Rhinoceros, CAD, SketchUp)

References:

1. L. Iwamoto, *Digital Fabrication: Architectural and Material Techniques*, Princenton Architectural Press, 2009
2. B. Kolarevic ed, *Architecture in The Digital Age: Design and Manufacturing*. Spon Press, 2003
3. Mode Lab, n.d. *Foundations: Grasshopper Primer* Third Edition.
4. B. Peters and P. Terri, *Inside Smart Geometry: Expanding the Architectural Possibilities of Computational Design*, Wiley & Sons Ltd, 2013

ENAR600025
HIGH RISE BUILDING FAÇADE
3 CREDIT UNITS

Learning Objectives:
Student should be able to master the principles of high rise building façade including aesthetics, technical, and environmental aspects.

Syllabus:
The essence of building façade of high rise building (resistance to earth quakes, lateral force/wind and water resistance); Façade design; Material and technology for façade detailing; Green façade.

Prerequisites: -

References:

1. Wolfgang Schueller, *Struktur Bangunan Bertingkat Tinggi*, PT Eresco, 1989
2. Mario Camp, *Skycrapers: An Architectural Type of Modern Urbanism*, Birkhauser, 2000
3. Hart, Henn, and Sontag, Multi-*Storey Buildings in Steel*, Granada Publishing, 1978
4. *Details in Architecture*
5. The Images Publishing Group, *Creative Detailing by Some of The World's Leading Architects*, The Images Publishing Group Pty Ltd, 2004

ENAR600026
PHOTOGRAPHY
3 CREDIT UNITS

Learning Objectives:
Students are able to produce photography works with artistic elements and architectural photography communication through photographic process and photo-essays.

Syllabus:
Understanding visual communication principles through two-dimensional medium, lighting, principles of zone system, principles of visual graphics, exposure management, and photo image perfection.

Prerequisites: -

References:

1. Michael Freeman, *The Photographer's Eyes*, Focal Press, 2007
2. Michael Freeman, Perfect Exposure, Focal Press, 2009
3. Michael Freeman, *The Photographer's Story*, Focal Press, 2012
4. Graham Clarke, *The Photograph*, Oxford University Press, 1997
5. Marita Sturken & Lisa Carthwright, Practice of Looking". Oxford University Press, 2nd edition, 2009
6. Soeprapto Soedjono, *Pot-Poutrri Fotografi*, Universitas Trisakti, 2007

ENAR600027
GEOMETRY AND ARCHITECTURE
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand the role of geometry as a basis of architectural form; should be able to explore various possible uses of geometry as the critical tools of analysis of existing architectural works and in the process of generating architectural design works.

Syllabus:
Development of knowledge on geometry and its implication for the development of architectural ideas and creativity; geometry and classical aesthetics of architecture; Euclidean and non Euclidean geometry in architecture; geometry and the concept of ideal city; geometry, music, and architecture; geometry and perception; topology in architecture; geometry in nature; exploration of the mechanism of geometry in shaping a design work and its potential for further development.

Prerequisites: -

References:

1. Vitruvius, *Ten Books on Architecture*, Dover Publications, 1960
2. Colin Rowe, *Mathematics of an Ideal Villa*, MIT Press, 1976
3. Peter Davidson & Donald L. Bates, *Architecture after Geometry,* Architectural Design, 1999
4. Irenee Scalbert, Archis, *Towards a Formless Architecture: The House of the Future by A+P Smithson*, Archis, 1999
5. D'Arcy Thompson, *On Growth and Form*, Dover Publications, 1992
6. Jane Jacobs, *The Death and Life of Great American Cities*, RandomHouse, 1961
7. Elizabeth Martin, *Architecture as a Translation of Music in Pamphlet Architecture 16*, Princeton Architectural Press, 1994

ENAR600028
EVERYDAY AND ARCHITECTURE
3 CREDIT UNITS

Learning Objectives:
Student should be able to understnd the existence of everyday phenomena as an approach to architecture; should be able to define the position of architecture discipline in responsing to various phenomena of everyday living space.

Syllabus:
Understanding and historical background of the concept of the 'everyday' in architecture; domestic space; aesthetic in architecture and the 'everyday', the concept of an ideal city and its relation to the 'everyday'; cyber space and virtual space; the phenomenon of the 'everyday' in urban space: a participatory approach in architecture.

Prerequisites: -

References:

1. Steven Harris & Deborah Berke (eds.), *Architecture of the Everyday*, Princeton Architectural Press, 1997
2. Sarah Wigglesworth & Jeremy Till (eds.), *The Everyday and Architecture*, Architectural Design, 1998
3. Michel de Certeau, *The Practice of Everyday Life*, University of California Press, 1998
4. Malcolm Miles, *The Uses of Decoration: Essays in the Architectural Everyday*, Wiley, 2000
5. Arnstein, *Ladder of Citizen Participation*, 1969

ENAR600029
ENAR610029
2D DIGITAL DESIGN COMMUNICATION
3 CREDIT UNITS

Learning Objectives:
Student should be able to use 2D digital drawing media in architectural design process; should be able to choose and use various way and technique in drawing for particular purpose.

Syllabus:
Drawings in CAD and NURBS, pixel base drawing, vector base drawing, architectural representation and diagram.

Prerequisites:
Student have taken Basic Design 2 (or Architectural Communication Techniques or Interior Architectural Communication Techniques in 2012 Curriculum)

References:

1. L Farrelly, *Basic Architecture: Representation Techniques*, Thames&Hudson, 2008
2. B Kolarevic (Ed), *Architecture in the Digital Age: Design and Manufacturing*, Spon Press, 2003
3. P Laseau, *Architectural Representation Handbook: Traditional and Digital Techniques for Graphic Communication*, McGraw-Hill Companies, 2000

ENAR600030
ENAR610030
3D DIGITAL DESIGN COMMUNICATION
3 CREDIT UNITS

Learning Objectives:
Student should be able to use 2D digital modelling tool in architectural design process; should be able to choose and use various way and technique in digital modelling; should be able to create appropriate graphical representation for the model.

Syllabus:
Polygon and NURBS-based digital model, inter-platform exchange, from 2D representation to 3D model, rendering techniques.

Prerequisites:
Student have taken Basic Design 2 (or Architectural Communication Techniques or Interior Architectural Communication Techniques in 2012 Curriculum)

References:

1. Hamad M.M, *Autocad 2010 Essentials*, Jones and Bartlett, 2010
2. Robert McNeel & Associates, *Rhinoceros: NURBS Modelling for Windows*, USA, 1998
3. H Sondermann, *Photoshop in Architectural Graphics*, SpringerWienNewYork, 2009

ENAR600031
LIFE CYCLE ENVIRONMENT
3 CREDIT UNITS

Learning Objectives:
Student should be able to evaluate environmental feasibility for the users, based on their life cycles: birth, infancy, early childhood, childhood, adolescence, adulthood, old age, death, in terms of places and rites.

Syllabus:
Introduction, overview and definition to life-cycle environment in urban and rural/traditional environment; psychology of pregnant mother, birth environment, house, hospital, and maternity hospital, rites of birth, infant and his/her

parent environment; sensory development of infant, psychological development of a child; playing environment and unwritten rules of playing, home environment, vicinity, and pre-school; parent and childecare; adolescence and rites, adolescence space; adult production space and marital rites; working environment; elderly; death space and rites.

Prerequisites: -

References:

1. Koentjaraningrat, *Ritus-Ritus Peralihan di Indonesia*, Balai Pustaka, 1979
2. A.Van Gennep, *The Rites of Passage*, (Terjemahan M. Viadon dan G), University of Chicago Press, 1960
3. Erik H Erickson, *Life Cycle Completed*, WW Norton & Company, 1997
4. Howard E. Gruber and J Jacques Voneche, *The Essential Piaget*, Gruber, NY: Basic Book, 1977
5. Saya S Shiraishi, *Young Heroes*, Cornell University Press, 1997.
6. Film: *Not One Less*, 1999; *Freedom Writers*, 2007;*The Human Body: The Incredible Journey from Birth to Death* (BBC, The Original BBC TV Series Plus: The Making of The Human Body), *Human Instinct* (BBC, The Complete Series)

ENAR600032
PROJECT MANAGEMENT
3 CREDIT UNITS

Learning Objectives:
Student should be able to develop knowledge about project management and process in design and built environment, particularly administration of technical aspects and building economy from early stage of the project, design, construction, to the the end of the project; should be able to analyze the content of project management documents, building regulation and standard; should be able to create proposal, TOR, auction document, design administration, construction administration, or Project Manual of construction service in small scale project, including working with real client.

Syllabus:
As a product, project management is record of series of project activities as a holistic process, including as a working guide, coordination tools, and as a control for a project. As a process, project management is series of activities that produce responsibilities toward the quantity of records of the whole stages of project management, in one multidiscipline function. This subject introduces the skills required to manage project along its stages through chronological model.

Prerequisites: -

References:

1. PMI, *A Guide to Project Management Body of Knowledge (PMBOK Guides) 3 ed,* Project Management Institute, 2004
2. J.M Amos and B.R Sarchet, *Management for Engineers,* Prentice-Hall Inc,
3. D Sbarrie, *Professional Construction Management,* McGraw-Hill, 1986
4. D Cadman and L Austin-Crowe, *Property Development,* EF & N Spon, 1978

ENAR600033
URBAN DESIGN PRINCIPLES
3 CRESIT UNITS

Learning Objectives:
Student should be able to understand urban spatial design theory and its application into urban physical design; able to understand urban design method, inquiry, and design research, know various perspectives and approaches in urban design; able to understand basic principles of urban spatial design and able to interpret it into certain case of urban area..

Syllabus:
Principles of ordering system in two and three-dimension (vista, type, scale, precedent). Urban spatial condition and spaces between buildings, theory of urban spatial and urban typology, elements of urban design, conceptual explora-

tion and basic research method through urban design enquiry and design research, environmental and spatial planning study. Component of urban design as control of process in forming the physical environment of urban space (land use, building intensity, setbacks, building coverage, building coefficient, building envelope, open green spaces, circulation, parking, infrastructure, conservation and visual/townscape corridor).

Prerequisites: -

References:

1. Hamid Shirvani, *Urban Design Process*, Van Nostrand Reinhold Co, 1987
2. Ali Madanipour, *Design of Urban Space: an Inquiry into a Socio-Spatial Process*, John Wiley and Sons, 1996
3. Gideon S. Golany, *Ethics and Urban Design: Culture, Form and Environment*, Wiley, 1995
4. Matthew Carmona, et al, *Public Places - Urban Spaces*, Architectural Press, 2003
5. Ray Gindroz, *The Urban Design Handbook: Techniques and Working Methods*, W.W. Norton and Company, 2003
6. Geoffrey Broadbent, *Emerging Concepts in Urban Space Design*, Taylor and Francis, 1995
7. Congress for the New Urbanism, *Charter of the New Urbanism*, McGraw-Hill Professional, 1999
8. Allan B. Jacobs, *The Great Streets*, The MIT Press, 1995
9. Roger Trancik, *Finding Lost Space Theories of Urban Design*, Van Nostrand Reinhold Company, New York, 1986
10. Christopher Alexander, *The Oregon Experiment*, Oxford University Press, 1975
11. Yoshinobu Ashinara, *The Aesthetics Townscape*, MIT Press, 1984
12. Edmund Bacon, *Design of Cities*, Thames and Hudson, 1967.
13. Kevin Lynch, *The Image of The City*, MIT Press 1960
14. Kevin Lynch, *What is Time and Place,* MIT Press 1972

ENAR600034
INTERIOR DESIGN
3 CREDIT UNITS

Learning Objectives:
Student should be able to have knowledge about concept, principles, elements, and systems in interior space that support human comfort, safety, and well-being, with consideration of human factors in the design process.

Syllabus:
Principles and issues in interior design, elements of interior space, atmosphere and spatial perception, material and interior construction, spatial comfort factors, human factors and universal design, interior space typology.

Prerequisites: -

References:

1. Binggeli,Corky, *Building Systems for Interior Designer*, Wiley, 3rd edition, 2016
2. Caan, Sashi. *Rethinking Design and Interiors: Human Beings in the Built Environment*. Laurence King Publishing, 2011.
3. Dodsworth, Simon. *Fundamental of Interior Design*, Ava Publishing, 2009
4. Farrelly, Lorraine. *Construction+Materiality*. Ava Publishing, 2009
5. Leydecker, Sylvia. *Designing Interior Architecture: Concept, Typology, Material, Construction*. Basel. Birkhauser, 2013
6. Mesher, Lynne. *Basic Interior Design: Retail Design*. Ava Publishing, 2009

ENAR600035
ENAR610035
SITE PLANNING AND DESIGN
3 CREDIT UNITS

Learning Objectives:
Student should be able to implement basic principles of site and environmental planning in an integrated way..

Syllabus:
Principles and issues in site planning, mass orientation, natural site condition, role of outdoor elements, topographical study of site and environment, trees and vegetation, typology and analysis of site planning, site and environmental design method.

Prerequisites: -

References:

1. Joseph DeChiara & Lee L. Koppelman, *Standard Perancangan Tapak*, Penerbit Erlangga, 1994
2. Albert J. Rutledge, *Anatomy of a Park: The Essentials of Recreation Area Planning and Design*, ASLA, 1971
4. William A. Mann, *Landscape Architecture, An Illustrated History in Timeless, Site Plans and Biography*, 1993
5. Geoffrey & Susan Jellicoe, *The Landscape of Man, Shaping the Environment From Prehistory to the Present Day*, Thames and Hudson Ltd,1995
6. Charles W. Moore et al, *The Poetics of Gardens*, MIT Press, 1993
7. Francis DK Ching, *Architecture: Form, Space and Order*, Erlangga, 1996

ENAR600036
CITY PLANNING
3 CREDIT UNITS

Learning Objectives:
Student should be able to understand history and theory of urban planning though historical survey and/or through key themes; should be able to understand (1) how urban space works (based on historical context) based on spatial planning research; (2) key paradigms in urban planning thinking. This subject is arranged around principle that history of urban planning is a theory of urban planning that is bounded by planning ethics.

Syllabus:
Syllabus is arranged following a chronological order that is divided by 5 sections: (1) reflection towards design ideas, origin and design practice; industrial city and housing question; spatial order exploration; (2) Modernist City; Colonial and Post-Colonial experiments; (3) Sub-urban dream (legacy of American city planning); from ghetto to city role model (racial and ethnic control); (4) City and citizenship in different historical moments; spatial rules and arrangements (basic rules of design); urban crisis, urban management, and business city; building a world class city in global south; (5) compatible theories in design and justice; see design over neo-liberalism: paradigm occurs in planning.
As an alternative, syllabus could also interrupt this chronological order and arrange as a survey class that arrange these materials in key themes, such as: Empire; Colonial/Post-colonial; Modernity and Alternatives; Pacific Rim Capitalism Transnational Urbanism; Race/Ethnic, Planning and Real Estate; City and Village; Marginality; Re-building A City; Entrepreneur City; Dystopia Planning and Post-city.

Prerequisites: -

References:

1. Selected articles from *Journal of Planning Theory & Practices*; *Cities, Space & Polity*, *International Journal on Urban Regional Research*; *Journal of Planning Education and Research*; *Journal of Urban Studies*; *Journal of Urban Forum*; *Journal of Urban History, Environment and Urbanization*; *Antipode*; *Journal of Planning Literature*
2. Paul H. Gleye, "City Planning versus Urban Planning: Resolving Profession's Bifurcated Heritage," in *Journal of Planning Literature*, 2015, Vol 30(1), 3-17.
3. John Friedmann. *Planning in the Public Domain: From Knowledge to Action,* 1987
4. Peter Hall, *Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century*, Blackwell Publishing, 2002 (3rd ed)
5. Friedrich Engels, *The Housing Question,* Lawrence and Wishart, Ltd, 1942
6. Mike Davis, *Planet of Slum*, Verso, *2007*
7. Dolores Hayden, *Redesigning the American Dream: The Future of Housing, Work, and Family Life,* W.W Norton & Company, 2007 (2nd ed)
8. Christine Boyer, *Dreaming the Rational City: The Myth of American City Planning,* MIT Press, 1986
9. Kermit C Parsons & David Schuyler (eds), *From Garden City to Green City: The Legacy of Ebenezer Howard,* Baltimore: The John Hopkins University Press, 2002

10. The Congress for the New Urbanism. 2001. Charter.
11. Robert Caro, *The Power Broker: Robert Moses and the Fall of New York*, Vintage, 1975
12. Marshall Berman, *All That is Solid Melts into Air,* Penguin Book, 1988
13. James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, 1999
14. Nezar AlSayyad (ed), *Forms of Dominance: On the Architecture and Urbanism of the Colonial Enterprise,* Avebury, 1992
15. Lisa Peattie, *Planning: Rethinking Ciudad Guayana,* University of Michigan Press, 1987
16. James Holston, *The Modernist City: An Anthropological Critique of Brasilia,* University of Chicago Press, 1989
17. June Manning Thomas and Marsha Ritzdorf (eds), *Urban Planning and the African American Community: In the Shadows,* SAGE Publication, Inc, 1996
18. Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States*, Oxford University Press, 1987
19. St Clare Drake & Horace R. Cayton, *Black Metropolis: A Study of Negro Life in a Northern City*, University of Chicago Press, 1993.
20. Edward Banfield, *Unheavenly City Revisited*, Waveland Press, 1990
21. Susan S Fainstein & Scott Campbell, *Reading in Planning Theory*, Wiley-Blackwell, 2011
22. Lewis Mumford, *The City in History: Its Origin, Its Transformation and Its Prospects*, A Harvest/HBJ Books, 1961
23. Stephen Graham & Simon Marvin, *Splintering Urbanism: Networked Infrastructures, Technological Mobilities, and the Urban Condition*, 2001
24. Aihwa Ong & Ananya Roy (eds), *Worlding Cities and the Art of Being Global*, Wiley-Blackwell, 2011
25. Patsy Haley, E.A Silva, et.al, "*Routledge Handbook on Planning Research Methods*" Routledge, 2015.
26. Faranak Mirahtab, *Cities in the Global South Reader*, Routledge, 2014.

ENAR600037
ARCHITECTURAL PSYCHOLOGY
3 CREDIT UNITS

Learning Objectives:
Student should be able to use basic conceptual knowledge of psychological process to identify and analysis human need in using built environment and outdoor space.

Syllabus:
Relationship between architecture and human behavior, motivation, needs, and value as basis of human actions, Gestalt perception, Ecological perception (Gibson), Affordances and its implementation in architecture, definition of cognition and its implementation in architecture, personal space, privacy, territoriality, crowding, post occupancy evaluation (POE).

Prerequisites: -

References:
1. Bell, Fischer and Greene, *Environmental Psychology*, Harcourt Publisher, 1996
2. Bryan Lawson, *The Language of Space*, Architectural Press, 2001
3. Byron Mikellides, *Architecture for People: Exploration in a New Humane Environment*, 1980
4. Wolfgang F.E. Preisser, Harvey Z. Rabinowitz, Edward T. White, *Post-Occupany Evaluation*, Van Nostrad Reinhold, 1988
5. Dak Kopec, *Environmental Psychology for Design* , Fairchild Books, 2012

ENAR600038
ENAR610038
REAL ESTATE
3 CREDIT UNITS

Learning Objectives:

Student should be able to demonstrate knowledge on real estate, and its relation to architecture and built environment.

Syllabus:
Definition of real estate, planning and development process of real estate (the eight phases of Real Estate Development Process), basic knowledge on property rental and sales project's cash-flow (short and long term project) and simple feasibility study.

Prerequisites: -

References:

1. Mike A. Miles, et.al, *Real Estate Development: Principles and Process*, Urban Land Institute, 2000
2. Carl Gunther, *Real Estate Fundamentals (Study Guide)*, 1995
3. Hartono Poerbo, *Tekno Ekonomi Bangunan Bertingkat Banyak*, Djambatan, 1993
4. Ralph Basile, et.al, *Downtown Development Handbook*, Urban Land Institute, 2000
5. Adrienne Schmitz, *Residential Development Handbook*, 3rd ed, Urban Land Institute, 2004
6. Dean Schwanke, *Mixed Used Development Handbook*, 2nd ed, Urban Land Institute, 2003

ENAR600039
PROJECT FEASIBILITY STUDY
3 CREDIT UNITS

Learning Objectives:
Student should be able to propose a project plan and explain the feasibility of a project, or program development in a clear, comprehensive and systematic manner.

Syllabus:
Basic knowledge which covers the requirement analysis, technical and environmental feasibility, time feasibility, socio-cultural aspects, legal feasibility, market and economic feasibility, exercise on issue formulation, SWOT analysis, scope, activities types and products, strategy, operational standard procedure, analyzing organizational plans, human resources and management, calculating market and economic possibility, as well as legal feasibility in relation to institutional consequences.

Prerequisites: -

References: -

ENAR600040
ENAR610040
LIGHTING DESIGN
3 CREDIT UNITS

Learning Objectives:
Student should be able to design lighting fixtures and ambience for interior and exterior uses, using artificial as well as natural lights through a critical, active collaborative learning process based on functional and aesthetical problems.

Syllabus:
Basic lighting, color, natural light, artificial light, light distribution, interior lighting, exterior lighting (façade of a house and high rise), urban lighting.

Prerequisites: -

References:

1. William M.C. Lam, *Perception and Lighting as Formgivers for Architecture*, McGraw-Hill, 1977
2. Norbert Lechner, *Heating Lighting Cooling*, 2nd edition, translated by PT RajaGrafindo Persada, 2007
3. John E Flyinn, *Architectural Interior System, Van Nostrand Reinhold Environmental Engineering Series*, Van

Nostrand Reinhold Company, 1971

ENAR600041
ENVIRONMENTAL DESIGN THEORIES AND METHODS

Learning Objectives:
Students should be able to understand basic theories and methods of environmental design, able to explain their own ideas and works, and apply one of various methods of designing built environment through writing and drawing (sketches).

Syllabus:
Theory and method of thinking: axiomatic and reductive; Theory and method of identifying built environment related problems, environmental observation and buildings that shape the environment, theory and methods of understanding problems of built environment; environmental analysis; theory and method of environmental design problem solving.

Prerequisites: -

References:
1. Gunawan Tjahjono, Metode Perancangan: Suatu pengantar untuk arsitek dan perancang, 1998
2. Christopher Alexander, Notes on the Synthesis of Form, Harvard University Press, 1994
3. Christopher Alexander, Timeless Way of Buildings, Oxford University Press, 1979

ENAR600042
URBAN HOUSING THEORY
3 CREDIT UNITS

Learning Objectives:
Student should be able to analyze the impact of housing, planning, and development in urban setting.

Syllabus:
Housing problems in an urban setting, studies on typology and housing area, methods and building typology, studies on economics and management of housing, studies on planning and design of urban housing.

Prerequisites: -

References:
1. Norma L. Newmark & Patricia J. Thompson, *Self, Space & Shelter: An Introduction to Housing*. New York: Harper and Row, Publisher, Inc., 1977
2. John F. C. Turner, *Housing By People: Towards Autonomy in Building Environtments*, Marion Boyars Publishers Ltd, 1976
3. Graham Towers, *At Home in The City: An Introduction to Urban Housing Design*, 2005
4. Paul Balchin & Maureen Rhoden. *Housing: The Essential Foundations,* Routledge, New York 2003
5. Abidin Kusno, *Politik Ekonomi Perumahan Rakyat dan Utopia Jakarta*, 2012

ENAR600043
BUILDING UTILITY
3 CREDIT UNITS

Learning Objectives:
Student should be able to explain utility system in high-rise and wide span building that support the building to function well from the perspective of user safety and comfort.

Syllabus:
Clean, grey, and black water system, artificial ventilation system, artificial lighting system, audio system, CCTV, tele-

phone, lightning rod, vertical transportation system, building cleaning system.

Prerequisites: -

References:

1. John S Reynolds and Benjamin Stein, *Mechanical and Electrical Equipement for Buildings*, John Willey and Sons, 1999
2. Ken Yeang, *The Skyscraper Bioclimatically Considered*, Academy Press, 1998
3. Esmond Reid, *Understanding Building*, MIT Press, 1984
4. Hartono Poerbo, *Utilitas Bangunan: Buku Pintar untuk Mahasiswa Arsitektur-Sipil*, Djambatan, 1992

ENAR600044
TECTONIC WORKSHOP
3 CREDIT UNITS

Learning Objectives:
Students should be able to produce construction design based on tectonic knowledge and to realize the design by applying making skills.

Syllabus:
Design through material exploration approach; materiality of materials; construction, construction skills and techniques; detail and finishing.

Prerequisite: -

References:

1. Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, MIT Press, 2001
2. Richard Weston, *Material, Form and Architecture*, Yale University Press, 2003
3. Markus Heinsdorff, *Die Bambusbauten, The Bamboo Architecture, Design with Nature*, Design Media Publishing, 2013
4. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014

ENAR600045
ENAR610045
INDEPENDENT STUDY
3 CREDIT UNITS

Learning Objectives:
Students should be able to demonstrate advanced architectural knowledge on particular topic and to implement the knowledge into the development of ideas of architectural intervention.

Syllabus:
Advanced studies on architectural knowledge in particular context; development of architectural intervention ideas based on thorough inquiry of contexts and theoretical inquiry on related topic.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600046
ENAR610046
DESIGN STUDY
3 CREDIT UNITS

Learning Objectives:
Students should able to develop basic skills on reading, inquiry and writing a scientific writing related to design activities.

Syllabus:
Communicating design process through a writing that complies with scientific writing requirements; Communicating systematically literature review, development of design methods and design process through in writing.

Prerequisite: Student has passed Architectural Design 4 and is taking Final Project.

References:

1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. David Evans & Paul Gruba, *How To Write A Better Thesis Dissertation*, Springer, 2014
3. F. Crews. *The Random House Handbook, ed, pgs 10-114*, McGraw-Hill Higher Education,1992
4. I. Borden and K. Ruedi, *The Dissertation: an Architecture Student's Handbook*, Oxford University Press, 2000.
5. T. Y. Hardjoko, *Panduan Meneliti dan Menulis Ilmiah*, Departemen Arsitektur Universitas Indonesia, 2005

ENAR600047
ENAR610047
CAPITA SELECTA
3 CREDIT UNITS

Learning Objective:
Students should be able to expand their knowledge on various topics that support acquisition of architectural knowledge and design skills.

Sylabus:
Selected topics that are relevant to architectural knowledge, design skills and their recent development.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600048
ENAR610048
INTERNSHIP
3 CREDIT UNITS

Learning Objectives:
Students should be able to understand the processes of planning, implementation and evaluation of engineering activities; to demonstrate knowledge on teamwork of relevant disciplines in professional practice; to demonstrate knowledge on the processes of planning, design and implementation of a built environment; to get involved as assistant designer/ planner, assistant field project officer, assistant field supervisor, or community architect.

Syllabus:
Real project management process in a company, architecture consultant or organization. Techniques of writing simple proposal and reporting field work. Techniques of presentation, Method of managing material, data, equipment, human resources and coordination among stakeholders in engineering planning and implementation activities.

Prerequisite: -

References: -

ENAR600049

ENAR610049
SPECIAL TOPIC ON ARCHITECTURAL DESIGN
3 CREDIT UNITS

Learning Objectives:
Students should be able to demonstrate knowledge on current architectural discourse and its implementation in architectural design.

Syllabus:
Studies on the development of contemporary architectural theories; the development of architectural design methods; the development of architectural representation techniques; the development in other relevant disciplines that have impacts of the development of architectural design theories and methods.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600050
ENAR610050
SPECIAL TOPIC IN URBAN DESIGN
3 SKS

Learning Objectives:
Students should be able to demonstrate knowledge on current urban design discourse and its implementation in urban design.

Syllabus:
Studies on the development of urban design theories; the development of urban design methods; studies on current issues that are relevant to urban design; the development in other relevant disciplines that have impacts on the development of urban design theories and methods.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600051
ENAR610051
SPECIAL TOPIC ON URBAN HOUSING AND SETTLEMENT
3 SKS

Learning objectives:
Students should be able to demonstrate knowledge on current development of urban housing and settlement.

Silabus:
Studies on the development of urban housing and settlement theories; studies on current issues that are relevant to urban housing and settlement.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600052
ENAR610052
SPECIAL TOPIC ON ARCHITECTURAL HISTORY, THEORY AND CRITICISM
3 SKS

Learning Objectives:
Students should be able to demonstrate historical and theoretical knowledge on the development of architecture.

Syllabus:
Studies of architectural history throughout various periods of time; the development of discourse on architectural history and theory.

Prerequisite: -

References: Relevant references to the topic offered.

ENAR600053
ENAR610053
SPECIAL TOPIC ON BUILDING TECHNOLOGY
3 SKS

Learning Objectives:
Students should be able to demonstrate knowledge on current discourse on sustainability and its implementation on architectural design.

Syllabus:
Studies on the development of theories on bulding technology and sustainable environment; studies on relevant issues of sustainability; architectural design innovative practice related to sustainability; innovation on building structure, construction, material and systems.

Prerequisite: -

References: Relevant references to the topic offered.

DESKRIPSI MATA AJAR WAJIB

ENAR601009
ENAR611009
PENGANTAR ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Mengetahui prinsip-prinsip dasar arsitektur, termasuk beberapa teori dasar, kaitan antara arsitektur dan manusia, kaitan arsitektur dan alam, arsitektur dan estetika, serta arsitektur dan teknologi. Mengetahui adanya keterkaitan antara disiplin arsitektur dengan bidang-bidang ilmu lainnya.

Silabus:
Apakah Arsitektur Itu? (perkenalan: seperti apa bidang ini, karir bidang arsitektur; *arkhe + tekton*; *tekhne*; gubuk primitif Laugier dan ide mengenai *shelter*)
Keindahan (proporsi; ritme; skala; *golden rule*; trinitas estetika Yunani Klasik; Mandala dan Maya; pandangan Taois dan alam; pola matematis dalam geometri)
Forma dan Ruang (Plato dan forma; tipe dan bagaimana Quatrèmere de Quincy melakukan mimikri terhadap alam; forma dan fungsi; sekilas tentang berbagai pandangan mengenai "ruang;" termasuk perbedaan makna antara "*raum*" dan "*spatium*")
Materialitas dan Materialisasi (mengulas ulang *tekhne*; pentingnya memahami sifat dan potensi material, tektonika yang bukan sekadar konstruksi)
Konteks (pemahaman tentang lingkung alam, lingkung buatan, dan lingkung bangun; kehadiran kita dan tempat menurut Heidegger; material dan konteks)
Manusia dan Relasi Antar Manusia I (pentingnya memahami manusia bagi perancang; beberapa pemahaman tentang manusia; tubuh, lima indera, dan ruang; jarak antara individu menurut Hall)
Manusia dan Relasi Antar Manusia II (ruang, kehadiran manusia dan keterasingan manusia, makna tempat bagi manusia)
Profesi Arsitek.

Prasyarat: -

Buku Ajar:
1. James O'Gorman, *ABC of Architecture*, University of Pennsylvania Press, 1998
2. Marcus Vitruvius Pollio, *Decem Libri de Architectura*, BiblioBazaar, 2008
3. Adrian Forty, *Words and Buildings: a Vocabulary of Modern Architecture*, Thames and Hudson, 2004
4. Yusuf B. Mangunwijaya, *Wastu Citra*, Gramedia Pustaka Utama, 1988
5. Martin Heidegger, *Building Dwelling Thinking, in Poetry, Language, Thought*, HarperPerennial, 1975
6. M. Merleau-Ponty, *Phenomenologie de la Perception Chapter II*, Routledge & Kegan Paul Ltd, 1962
7. Edward T. Hall, *The Hidden Dimension*, Doubleday, 1966

ENAR601001
ENAR611001
DESAIN DASAR 1
5 SKS

Tujuan Pembelajaran:
Mampu menghasilkan karya 2D dan 3D yang merupakan respon kreatif terhadap konteks dengan menggunakan pengetahuan dasar seni rupa dan desain; Mampu menguasai dan menerapkan teknik-teknik dasar representasi 2D dan 3D.

Silabus:
Pengetahuan dasar seni rupa dan desain, pengetahuan dasar estetika; pengetahuan dasar ruang; elemen-elemen visual: bentuk, warna, tekstur dll; prinsip-prinsip dasar komposisi; pengantar sejarah seni dan perannya sebagai dasar menghasilkan karya; teknik gambar dasar: gambar ekspresi, gambar bentuk (benda alam dan buatan); teknik *modeling* dan *assembling* dasar; memahami karakter media dan bahan; memahami konteks dan menggagas respon terhadap konteks; mencerap secara visual dan mengkomunikasikan hasil pencerapan; teknik display dan layout.

Prasyarat: -

Buku Ajar:
1. Louis Fisher Rathus, *Understanding Art*, Prentice Hall, 1994
2. Claire Holt, *Art in Indonesia, Continuity and Changes*, Cornel University,Ithaca and London, 1967

3. Johannes Itten, *The Elements of Color*, John Wiley & Sons, 1970
4. Harvard Anarson, *History of Modern Art: Painting, Sculpture, Architecture & Photography*, Prentice Hall, 1998
5. Kimberly Elam, *Geometry of Design: Studies in Proportion and Composition*, Princeton, 1998
6. Gyorgy Kepes, *Structure in Art and in Science*, George Braziller, 1965
7. Frank D. K. Ching, *Architecture: Form, Space & Order*, John Wiley & Son, 1997
8. John Heskett. *Design: A Very Short Introduction*. Oxford: Oxford University Press, 2002.

ENAR602002
ENAR612002
DESAIN DASAR 2
7 SKS

Tujuan Pembelajaran:
Mampu menghasilkan karya spasial yang merupakan respon kreatif terhadap konteks dengan menerapkan pengetahuan seni rupa dan desain dan menerapkan keterampilan teknik representasi 2D dan 3D. Mampu mengkomunikasikan gagasan arsitektural dengan menggunakan teknik dan media yang tepat.

Silabus:
Pengetahuan dasar hubungan ruang, manusia dan waktu; eksplorasi elemen-elemen spasial terdiri dari elemen visual, non visual (audio, kinestetik) dan elemen-elemen bergerak (kinetik); menggagas elemen-elemen spasial sebagai respon terhadap konteks; prinsip-prinsip komunikasi arsitektur; teknik komunikasi arsitektur dasar: gambar proyeksi, gambar ortografis, gambar perspektif; teknik *modeling* dan *assembling*; *model making*; memahami karakter media dan bahan; mengkomunikasikan benda dan ruang untuk berbagai tujuan dan audience; mengkomunikasikan ruang kegiatan manusia.

Prasyarat: Telah mengikuti Desain Dasar 1 (atau Seni Rupa pada Kurikulum 2012).

Buku Ajar:
1. Francis D.K. Ching, *Drawing & Perceiving: A Visual Dictionary of Architecture*, John Wiley & Sons, 1996
2. Francis D.K. Ching, *Architectural Graphics, 2nd Ed*, John Wiley & Sons, 2002
3. Francis D.K. Ching, *Drawing: A Creative Process*, Wiley, 1989
4. Paul Laseau and Norman Crewe, *Visual Notes for Architects and Designers*, Wiley, 1986
5. Jeffrey Balmer, Michael T. Swisher, *Diagramming the Big Idea: Methods for Architectural Composition*, Routledge, 2012
6. Mark Basinger, *Drawing Ideas*, Random House, 2013
7. Don Norman, *The Design of Everyday Things*, Basic Books, 2013
8. Atelier Bow Wow, *Graphic Anatomy,* Toto, 2007
9. Joy Monice Malnar, *Sensory Design,* University of Minnesota Press, 2004
10. Peter Zumthor, *Atmospheres: Architectural Elements, Surrounding Objects,* Birkhauser, 2006

ENAR603010
ENAR613010
SEJARAH DAN TEORI ARSITEKTUR 1
3 SKS

Tujuan Pembelajaran:
Mengetahui sejarah arsitektur modern sejak 1750an sampai saat ini.

Silabus:
Mata kuliah ini merupakan survey terhadap sejarah arsitektur modern sejak 1750an sampai saat ini, dengan fokus pada perkembangan arsitektur modern. Mata kuliah ini juga membahas kaitan antara perkembangan arsitektur dan kaitannya dengan konteks sosio-budaya, politik, dan teknologi. Mata kuliah ini juga meliputi beberapa prinsip dalam arsitektur dan desain. Mata kuliah ini menggaris bawahi beberapa momen penting dalam perkembangan arsitektur modern, dan memberikan pengetahuan tentang teori-teori yang relevan dengan arsitektur modern.

Prasyarat: -

Buku Ajar:

1. Kenneth Frampton, *Modern Architecture: A Critical History 3rd Ed*, Thames & Hudson, 1997
2. Leonardo Benevolo, *History of Modern Architecture, Volume I & II*, MIT Press, 1979
3. Iain Borden, *Architecture and the Sites of History, Interpretations of Buildings and Cities*, Butterworth Architecture, 1995
4. William J.R. Curtis, *Modern Architecture since 1900, Third Edition*, Phaidon Press, 2002
5. Diane Ghirardo, *Architecture After Modernism*, Thames & Hudson, 1996
6. Spiro Kostof, *A History of Architecture, Settings & Rituals, 2nd Edition*, Oxford University Press, 1994
7. Bernd Evers & Christof Thoenes (eds.), *Architectural Theory: from the Renaissance to the Present*, Taschen, 2003

ENAR603011
ENAR613011
METODE PERANCANGAN
3 SKS

Tujuan Pembelajaran:
Membekali mahasiswa dasar pemikiran dan cara-cara merancang bangunan sehingga mampu menjelaskan dasar pemikiran & menerapkan salah satu cara merancang bangunan dalam bentuk tulisan dan gambar.

Silabus:
Teori dan cara berpikir: fenomenologi, semiotik; Teori dan cara mengenal masalah: pengamatan arsitektural, pengetahuan perancangan, faktual, deontik, instrumental, black box, clear box; Teori dan cara memahami masalah, analisis dan sintesis; Teori dan cara menyelesaikan masalah.

Prasyarat: Telah mengikuti Pengantar Arsitektur

Buku Ajar:

1. Christoper Alexander, *Notes on The Synthesis of Form*, Harvard University Press,1994
2. Don Koberg & Tim Bagnall, *The Universal Traveller: a Soft System Guide to Creativity, Problem Solving, & the Process of Reaching Goals*, Crisp Learning, 1991.
3. Gunawan Tjahjono, *Metode Perancangan: Suatu Pengantar untuk Arsitek dan Perancang*, 1998
4. Jean-Pierre Protzen & David J. Harris, *The Universe of Design: Horst Rittel's Theories of Design and Planning*, Routledge, 2010

ENAR604013
ENAR613013
SEJARAH DAN TEORI ARSITEKTUR 2
3 SKS

Tujuan Pembelajaran:
Mengetahui sejarah arsitektur di Indonesia dalam kurun waktu akhir abad ke-19 dan abad ke-20.

Silabus:
Mata kuliah ini merupakan survey tentang sejarah arsitektur di Indonesia, dalam kurun waktu akhir abad ke-19 dan abad ke-20. Berbagai pengaruh dari luar—dari India, Cina, Timur Tengah, dan Barat—turut mempengaruhi perkembangan arsitektur di Indonesia. Karenanya cukup penting unutk memahami arsitektur Indonesia, dan kaitannya dengan arsitektur-arsitektur Non-Barat dan Barat, serta arsitektur-arsitektur berbagai etnis di Indonesia. Melalui diskusi dan analisis terhadap materi seperti bangunan, gambar, foto, dan bahan tertulis, mata kuliah ini menggaris bawahi keterkaitan antara arsitektur, manusia, dan kondisi seperti iklim tropis, latar sosio-budaya, politik, dan perkembangan teknologi di Indonesia.

Prasyarat: -

Buku Ajar:

1. Adolf Heuken SJ, *Tempat-Tempat Bersejarah di Jakarta*, Yayasan Cipta Loka Caraka, 1997
2. Helen Jessup, *Dutch Architectural Visions of the Indonesian Tradition*, Muqarnas v. 3, 1985, pp: 138-61.
3. Kemas Ridwan Kurniawan, *Postcolonial History of Architecture and Urbanism of Indonesian Tin Mining in Muntok Bangka*, VDM, 2011
4. Abidin Kusno, *Behind the Postcolonial: Architecture, Urban Space and Political Cultures in Indonesia,* Routledge, 2000
5. Scott Mirelles, *Historical Photographs of Batavia*
6. Rudolph Mrazek, *Engineers of Happy Land: Technology and Nationalism in a Colony*, Princeton University Press, 2002
7. Peter J.M Nas (ed.), *The past in the Present: Architecture in Indonesia*, NAi Publishers, 2006
8. Pauline Rosmaline, *Designing Colonial Cities: the Making of Modern Town Planning in the Dutch East Indies and Indonesia 1905-1950,* International Institute for Asian Studies the Newsletter 57, 2011
9. Iwan Sudradjat, *A Study of Indonesian Architectural History*, Ph.D Thesis at the Department of Architecture, University of Sydney, 1991
10. Yulianto Sumalyo, *Arsitek Kolonial Belanda dan Karya-karyanya*, Gama Press, 1992
11. Gunawan Tjahjono (ed), *The Indonesian Heritage Series*, Archipelago Press, 1998.
12. M. Nanda Widyarta, *Mencari Arsitektur Sebuah Bangsa; Sebuah Kisah Indonesia*, Wastu Laras Grafika, 2007
13. Yulia Nurliani Lukito, *Exhibiting Modernity and Indonesian Vernacular Architecture*, Springer VS, 2016

ENAR604015
ENAR614015
MEDIA DESAIN DIGITAL
3 SKS

Tujuan Pembelajaran:
Mahasiswa dapat mengekspresikan, mengeksplorasi, menyelidiki dan mengkomunikasikan ide arsitektural dengan menggunakan media digital.

Silabus:
Pengenalan terhadap beragam teknik dan jenis media digital yang dapat digunakan untuk mempresentasikan ide arsitektural, mempelajari kemampuan dasar dari beragam peralatan digital, menentukan peralatan digital dan teknik yang tepat untuk mengekspresikan, mengeksplorasi atau memeriksa ide arsitektural tertentu, mempelajari alur kerja yang menggunakan media digital dan analog sebagai bagian dari proses desain arsitektural.

Prasyarat: Telah mengikuti Desain Dasar 2 (atau Teknik Komunikasi Arsitektur atau Teknik Komunikasi Arsitektur Interior pada Kurikulum 2012).

Buku Ajar:
1. L Farrelly, *Basic Architecture: Representation Techniques*. London, Thames&Hudson, 2008
2. B Kolarevic, (Ed), *Architecture in the Digital Age: Design and Manufacturing*, Spon Press, 2003
3. P Laseau, *Architectural Representation Handbook: Traditional and Digital Techniques for Graphic Communication*, McGraw-Hill Companies, 2000

PERANCANGAN ARSITEKTUR

Perancangan Arsitektur dilaksanakan pada Studio Arsitektur yang sekaligus merupakan sistem dan lokasi pembelajaran. Kemampuan yang diharapkan pada akhir pembelajaran adalah berpikir kritis dan kreatif yang dapat diukur dari kemampuan mahasiswa untuk menjelaskan dan menyajikan gagasan rancangannya. Pembelajaran Perancangan Arsitektur dilaksanakan melalui Proyek Perancangan yang merupakan manifestasi langsung pengintegrasian berbagai pengetahuan yang terdiri dari:

- Pengetahuan faktual: Pemahaman dan perumusan persoalan perancangan yang bersifat abstrak, kualitatif dan menyangkut aspek sosio-kultural aktivitas/ruang manusia
- Konteks ruang kehidupan dengan lingkungan, mulai dari ruang mikro/lokal/pribadi, keluarga, komunitas, hingga lingkungan kota/rural.
- Aspek keteknikan seperti struktur (statika), tektonik (termasuk bahan bangunan), fisika bangunan, dan utilitas bangunan.
- Metoda perancangan

- Teknik komunikasi

Dalam pelaksanaannya Proyek Perancangan mewadahi materi pembelajaran dari mata ajaran Perancangan Arsitektur, Teknologi Bangunan dan Pengantar Konteks Perkotaan, dengan susunan sebagai berikut:

- Proyek Perancangan 1 merupakan integrasi dari Perancangan Arsitektur 1 dan Teknologi Bangunan 1
- Proyek Perancangan 2 merupakan integrasi dari Perancangan Arsitektur 2 dan Teknologi Bangunan 2
- Proyek Perancangan 3 merupakan integrasi dari Perancangan Arsitektur 3 dan Teknologi Bangunan 3
- Proyek Perancangan 4 merupakan integrasi dari Perancangan Arsitektur 4 dan Pengantar Konteks Perkotaan

Secara bertahap pumpunan pengetahuan dan kemampuan akan dijabarkan ke dalam tahap pembelajaran Perancangan Arsitektur di tiap semester.

PROYEK PERANCANGAN 1

Proyek Perancangan 1 merupakan kegiatan perancangan ruang diri manusia. Proyek Perancangan 1 merupakan integrasi dari penerapan pengetahuan perancangan ruang melalui pendekatan pemahaman keterkaitan diri manusia dan ruang, penerapan logika dasar keberdirian dan penerapan prinsip-prinsip dasar kenyamanan lingkungan dalam rancangan ruang. Proyek Perancangan 1 terdiri dari kegiatan pembelajaran dalam dua mata ajaran yang saling mendukung yaitu Perancangan Arsitektur 1 dan Teknologi Bangunan 1.

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ENAR613003
PERANCANGAN ARSITEKTUR 1
7 SKS

Tujuan Pembelajaran:
Merancang ruang diri melalui pendekatan pemahaman keterkaitan diri manusia dan ruang.

Silabus:
Perancangan Arsitektur 1 merupakan tahap awal dan kritikal untuk memperkenalkan ma- hasiswa pada disiplin arsitektur secara nyata melalui perancangan ruang yang imajinatif, kreatif dan inovatif, Pengetahuan arsitektur mencakup pemahaman awal mengenai makna dan pengalaman ruang pribadi, interaksi antara tubuh manusia dan kualitas ruang, serta pemahaman konteks tapak dan lingkungan sebagaimana dialami oleh tubuh manusia. Kegiatan perancangan terdiri dari rangkaian aktivitas mulai dari mengumpulkan informasi, mendefinisikan problem, menganalisis, dan memberikan putusan kritis untuk memformulasikan strategi tindakan terhadap ruang manusia, kemampuan berpikir tiga dimensional melalui eksplorasi rancangan ruang, serta mengkomunikasikan gagasan perancangan.
Tugas merancang terdiri dari: Merancang ruang diri sederhana yang dimaterialisasikan melalui model skala 1:1; Merancang ruang untuk sebuah episode kehidupan manusia.

Prasyarat:
Telah mengikuti Desain Dasar 2 (atau Teknik Komunikasi Arsitektur pada Kurikulum 2012)
Telah atau sedang mengikuti Teknologi Bangunan 1

Buku Ajar:

1. Bruno Zevi, *Architecture as Space: How to Look at Architecture,* 1993.
2. Donlyn Lyndon and Charles W. Moore, *Chambers For A Memory Palace,* MIT Press, 1994
3. Edward T. Hall, *The Hidden Dimension*, Peter Smith Publications, 1992
4. Francis DK Ching, *Architecture: Form, Space and Order*, Wiley, 1996.
5. Karen Franck & Bianca Lepori, *Architecture Inside Out*, Academy Press, 2000.
6. Michael Pollan, *A Place of My Own*. Penguin Press, 2008.
7. Steen Eiler Rasmussen, *Experiencing Architecture*, MIT Press, 1959.
8. Yi-Fu Tuan, *Space and Place: The Perspective of Experience*, University of Minnesota Press, 1981

ENAR603012
ENAR613012
TEKNOLOGI BANGUNAN 1
3 SKS

Tujuan Pembelajaran:
Mahasiswa mengetahui aspek teknis struktur, bahan, konstruksi dan kenyamanan bangunan sederhana; Mahasiswa mampu merumuskan proses desain teknis dan integrasi struktur, teknologi konstruksi menjadi kesatuan fungsional yang efektif; Mahasiswa mampu menyusun laporan analisis/sintesis dari seluruh aspek teknologi bangunan.

Silabus:
Struktur pada alam; Prinsip struktur dan konstruksi sederhana (logika struktur, mekanika teknik); Konteks site (elemen alam yang mempengaruhi bangunan); Material dan bahan bangunan (material, posisi pada bangunan, nilai properti material yang mempengaruhi kenyamanan); Dasar fisika bangunan (orientasi bangunan, pengaruh lingkungan terhadap kenyamanan); Pengantar prinsip struktur dan konstruksi bangunan sederhana; Pengantar gambar kerja.

Prasyarat: -

Buku Ajar:

1. Mario Salvadori, *Why Building Stands Up*, W.W. Norton & Company, 2002
2. W. O. Kilmer, *Construction Drawings and Details for Interiors: Basic Skills*, John Wiley and Sons, 2003
3. Bjorn N Sandaker, Arne P Eggen, and Mark R Cruvellier, *The Structural Basis of Architecture: Second Edition*, Routledge, 2011
4. Forest Wilson, *Structure: The Essence of Architecture*, Van Nostrand Reinhold Company, 1971
5. Mark Dekay and G. Z. Sun Brown, *Wind & Light: Architectural Design Strategies: 3rd Edition,* John Wiley & Sons, 2014
6. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014
7. Edward Allen and Joseph Iano, *The Architect Studio Companion: Rules of Thumb for Preliminary Design*, Wiley and Sons, 2002
8. Ken Parsons, *Humn Thermal Environments: The effects of Hot, Moderate, and Cold Environments on Human Health, Comfort, and Performance*, CRC, 2014
9. Pete Silver and Will McLean, *Introduction to Architectural Technology*. Laurence King, 2013

PROYEK PERANCANGAN 2

Proyek Perancangan 2 merupakan kegiatan perancangan ruang Kelompok Sosial Inti (KSI). Proyek Perancangan 2 merupakan integrasi dalam penerapan pengetahuan perancangan ruang melalui pendekatan gagasan dwelling dan pertimbangan siklus kehidupan dan kegiatan sehari-hari dari KSI, penerapan prinsip-prinsip dasar struktur dan konstruksi bangunan bertingkat rendah, utilitas bangunan serta kaidah-kaidah fisika bangunan. Proyek Perancangan 2 terdiri dari kegiatan pembelajaran dalam dua mata ajaran yang saling mendukung yaitu Perancangan Arsitektur 2 dan Teknologi Bangunan 2.

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PERANCANGAN ARSITEKTUR 2
8 SKS

Tujuan Pembelajaran:
Merancang *dwelling* sebagai ruang bertinggal kelompok sosial inti (KSI) melalui pendekatan tektonik dengan mempertimbangkan siklus kehidupan dan kegiatan sehari-hari dari KSI.

Silabus:
Perancangan Arsitektur 2 mengajukan persoalan kritikal ruang kehidupan manusia dalam konteks komunitas urban, melalui perancangan sebuah *dwelling*. Pengetahuan perancangan mencakup pemahaman pengertian *dwelling*, observasi dan analisis terhadap KSI, perumusan program berdasarkan pemahaman kebutuhan KSI, pengembangan gagasan ruang melalui eksplorasi tektonik sebagai '*the art of joining*' dan eksplorasi komposisi spasial sebagai integrasi *part-whole*

yang mewadahi program secara tepat, yang direalisasikan ke dalam rancangan secara terintegrasi dan dikomunikasikan dengan memenuhi kaidah-kaidah komunikasi arsitektur.
Tugas merancang terdiri dari: Melakukan kajian yang komprehensif terhadap preseden *dwelling* dengan kualitas rancangan ruang dan teknologi terbaik; Merancang ruang untuk sebuah KSI.

Prasyarat:
Telah mengikuti Perancangan Arsitektur 1
Telah atau sedang mengikuti Teknologi Bangunan 2

Buku Ajar:
1. Martin Heidegger, *Building Dwelling Thinking, in Poetry, Language, Thought*, HarperPerennial, 1975
2. Adam Sharr with Simon Unwin, *Heidegger's Hut, in ARQ (Architectural Research Quarterly) Vol.5 No.1*, 2001
3. J Macgregor Wise, *Home: Territory and Identity pp. 391-396, in INTIMUS Interior Design Theory Reader,* 2006
4. Norberg Schulz, *The Concept of Dwelling – Introduction*, Rizzoli International Publications,1985
5. Hannah Arendt, *The Human Condition - Chapter I & II*, University of Chicago Press, 1958
6. A. Rapoport, *House Form and Culture - Chapter II Alternative Theories of House Form & Chapter III Sociocultural Factors and House Form, pp. 18-82*, Prentice Hall Inc, 1969
7. Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction – Chapter I Introduction: Reflections on the Scope of the Tectonic*, MIT Press, 2001
8. Charles Moore, Gerrad Allen, Donlyn Lyndon, *Assembling A Room, in The Place of Houses*, University of California Press, 2000
9. Francis D. K. Ching, *Architecture: Form, Space and Order*, Wiley, 2014
10. Erik H. Erikson, *Life Cycle Completed – Chapter 3 Major Stages in Psychosocial Development*, W. W. Norton & Company, 1998
11. Jonathan Hill, *Immaterial Architecture – House and Home,* Routledge, 2006
12. Peter Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects*, Birkhäuser Architecture, 2006

ENAR604014
ENAR614014
TEKNOLOGI BANGUNAN 2
3 SKS

Tujuan Pembelajaran:
Mahasiswa mengetahui aspek teknis struktur, bahan, konstruksi dan kenyamanan bangunan sederhana bertingkat rendah; Mahasiswa mampu merumuskan proses desain teknis dan integrasi struktur, teknologi konstruksi dan sistem utilitas menjadi kesatuan fungsional yang efektif; Mahasiswa mampu melakukan dokumentasi teknis dan membuat laporan analisis/sintesis dari seluruh aspek teknologi bangunan.

Silabus:
Identifikasi seluruh aspek teknologi bangunan pada bangunan sederhana (bertingkat rendah) yang mencakup aspek: keberdirian, keterbangunan dan kenyamanan; Pengenalan secara mendalam materialitas dari bahan, teknik konstruksi dan detail; Dimensi dan konfigurasi bahan/ material terkait dengan struktur dan konstruksi bangunan sederhana; Elemen-elemen pengudaraan dan pencahayaan di dalam bangunan; Pengantar utilitas bangunan sederhana; Membuat dokumentasi teknis (gambar kerja).

Prasyarat:
Telah mengikuti Teknologi Bangunan 1
Telah atau sedang mengikuti Perancangan Arsitektur 2

Buku Ajar:
1. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014
2. Arthurs Lyons, *Materials for Architect & Builders*, Butterworth-Heinemann, 2008
3. Graham Bizley, *Architecture in Details*, Architectural Press, 2008
4. Andrea Deplazes, *Constructing Architecture: Materials Processes Structures, A Handbook*, Birkhauser, 2008
5. Gail Peter Borden, *Material The Typology of Modern Tectonics*, Wiley, 2010

6. Thomas Schropfer, *Material Design*, Birkhauser Architecture, 2010
7. Norbert Lechner, *Heating, Cooling, Lighting: The Sustainable Design Methods for Architect*, Wiley, 2013
8. Charlie Wing, *How Your House Works: a Visual Guide to Understanding and Maintaining Your Home, Updated and Expanded,* RSMeans, 2012
9. Corky Binggeli, *CorkyBuilding Systems for Interior Designers*, John Wiley & Sons, 2003

PROYEK PERANCANGAN 3

Proyek Perancangan 3 merupakan kegiatan perancangan ruang dengan fokus pada aspek keterbangunan dan kinerja dari bangunan. Proyek Perancangan 3 merupakan integrasi dari pengetahuan perancangan melalui pendekatan teknologi, penerapan prinsip-prinsip struktur, konstruksi dan material, sistem pendukung bangunan dan penggunaan teknologi dalam proses perancangan. Proyek Perancangan 3 terdiri dari kegiatan pembelajaran dalam dua mata ajaran yang saling mendukung yaitu Perancangan Arsitektur 3 dan Teknologi Bangunan 3.

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ENAR615005
PERANCANGAN ARSITEKTUR 3
9 SKS

Tujuan Pembelajaran:
Merancang sebuah bangunan melalui pendekatan pengembangan gagasan teknologi.

Silabus:
Perancangan Arsitektur 3 mengajukan persoalan aspek keterbangunan dan kinerja dari bangunan. Pengetahuan perancangan mencakup pengembangan gagasan tektonik lanjutan, meliputi pengolahan material, detail, dan konstruksi, serta pengembangan gagasan arsitektur berbasis kinerja dan sistem bangunan. Pengetahuan tapak dan lingkungan mencakup penjelasan konteks dari rancangan melalui pemahaman kondisi fisik tapak dan pertimbangan keberlanjutan. Pengetahuan teknologi dalam proses perancangan arsitektur terkait penggunaan representasi, model dan simulasi.

Prasyarat:
Telah mengikuti Perancangan Arsitektur 2
Telah atau sedang mengikuti Teknologi Bangunan 3

Buku Ajar:
1. Chris Abel, *Architecture, Technology and Process*, Architectural Press, 2004.
2. Ed van Hinte et al, *Smart Architecture,* 101 Publishers, 2003.
3. Robert Kronenburg & Filiz Klassen, *Theory, Context, Design and Technology – Trasnportable Environments 3,* Taylor & Francis, 2006.
4. Pete Silver and Will McLean, *Introduction to Architectural Technology*, Laurence King Publishing, 2013.
5. Bjorn Sandaker, *On Span and Space: Exploring Structures in Architecture,* Routledge, 2008
6. Branko Kolarevic and Ali Malkawi, *Performative Architecture : Beyond Instrumentality*, Spon Press, 2005

ENAR605016
ENAR615016
TEKNOLOGI BANGUNAN 3
3 SKS

Tujuan Pembelajaran: Mahasiswa mengetahui aspek teknis struktur, bahan konstruksi dan kenyamanan bangunan lanjut (bangunan tingkat tinggi/bentang panjang); Mahasiswa mampu merumuskan proses desain teknis dan integrasi struktur, teknologi konstruksi dan sistem utilitas menjadi kesatuan fungsional yang efektif; Mahasiswa mampu merumuskan sistem utilitas serta sistem transportasi, komunikasi, perawatan dan keselamatan bangunan; Mahasiswa mampu melakukan dokumentasi teknis dan membuat laporan analisis/sintesis dari seluruh aspek teknologi bangunan; Mahasiswa mampu memahami isu-isu konservasi energi dan keberlanjutan ekologis (*ecological sustainability*).

Silabus: Sistem struktur bangunan lanjut (bentang lebar dan/atau bertingkat tinggi); Sistem bangunan, sistem utilitas lanjut (kenyamanan, transportasi, komunikasi, perawatan dan keselamatan bangunan); Konservasi energi bangunan yang berkelanjutan; Pengetahuan dasar-dasar isu-isu keberlanjutan ekologis (*ecological sustainability*).

Prasyarat:
Telah mengikuti Teknologi Bangunan 2
Telah atau sedang mengikuti Perancangan Arsitektur 3

Buku Ajar:
1. Yonca Hurol, *The Tectonic sof Structural Systems: An Architectural Approach*, Routledge, 2015
2. D Schodek, *Structures, 7th Edition*, Prentice Hall, 2013
3. Chris Lefteri, *Materials for Design*, Laurance King Publishing, 2014
4. Bjarke Ingels, *Big, Hot To Cold: an Oddsey of Architectural Adaptation,* Taschen, 2015
5. Farshid Moussavi, *The Function of Form*, Harvard Graduate School of Design, 2009
6. William McDonough and Michael Braungart, *The Upcycle: Beyond Sustainability: Design for Abundance*, North Point Press, 2013
7. Rob Thompson, *Sustainable Materials, Processes and Production*, Thames and Hudson, 2013
8. Wolfgang Schueller, *Highrise Building Structures*, John Wiley and Sons, 1977
9. Thomas Hootman, *Net Zero Energy Design: A Guide for Commercial Architecture*, Wiley, 2012
10. Pete Silver and Will McLean, *Structural Engineering for Architect: A Handbook*, Laurence King, 2014
11. Esther Rivas Adrover, *Deployable Structures*, Laurance King, 2015
12. Dwi Tangoro, *Utilitas Bangunan*, UI Press, 2004

PROYEK PERANCANGAN 4
Proyek Perancangan 4 merupakan kegiatan perancangan ruang publik. Proyek perancangan ini merupakan integrasi dari penerapan pengetahuan perancangan melalui pendekatan tipe arsitektur, perancangan berbasis isu (*issue- based*), dan pengetahuan dasar perkotaan. Proyek Perancangan 4 terdiri dari kegiatan pembelajaran dalam dua mata ajaran yang saling mendukung yaitu Perancangan Arsitektur 4 dan Pengantar Konteks Perkotaan.

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ENAR616006
PERANCANGAN ARSITEKTUR 4
9 SKS

Tujuan Pembelajaran:
Merancang sebuah tempat publik melalui pendekatan berdasarkan tipe arsitektur, dan perancangan berbasis isu (*issue-based*), serta eksplorasi gagasan *form* dan kualitas ruang secara kreatif.

Silabus:
Perancangan Arsitektur 4 mengajukan persoalan kritikal ruang kehidupan manusia dengan kompleksitas sosial budaya pada setting urban dan/atau sub urban dengan dua pendekatan: a) pendekatan yang bersifat *top-down* melalui eksplorasi gagasan perancangan berbasis tipologi dan b) pendekatan yang bersifat *bottom-up* melalui eksplorasi gagasan perancangan berbasis isu (*issue-based*). Pengetahuan perancangan mencakup penjelasan pengertian publik, uraian tipe fungsional, spatial programming, pengembangan kata kunci, konsep arsitektur institusi dan jabarannya dalam rancangan ruang; perumusan *initial statement* yang berbasis isu, pengembangan program dan jabarannya dalam rancangan ruang. Pengetahuan tapak dan lingkungan mencakup penjelasan konteks dari rancangan melalui pemahaman kondisi fisik tapak dan konteks social budaya perkotaan serta pertimbangan keberlanjutan.
Tugas merancang terdiri dari: Merancang ruang dalam konteks lingkungan sosial dengan hubungan kekerabatan yang masih kental; Merancang ruang dalam konteks lingkungan urban yang lebih kompleks.

Prasyarat:
Telah mengikuti Perancangan Arsitektur 3
Telah atau sedang mengikuti Pengantar Konteks Perkotaan

Buku Ajar:
1. Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture*, *Chapter 'Space', hal. 256-275*,

Thames & Hudson, 2000
2. Yi-Fu Tuan, *Space and Place: The Perspective of Experience*, University of Minnesota Press, 1981
3. Henri Lefebvre, *The Production of Space*, Blackwell, 1991
4. Jeremy Till, *Architecture Depends*, MIT Press, 2009
5. Karen Franck & Bianca Lepori, *Architecture Inside Out*, Academy Press, 2000
6. Giulio Carlo Argan, *On the Typology of Architecture, in Nesbitt, Theorizing a New Agenda for Architecture hal. 240-246*, Princeton Architectural Press, 1996
7. Jonathan D. Sime, *Creating Places or Designing Spaces*, Journal of Environmental Psychology, Vol 6, hal. 49-63, 1986
8. Andrew Ballantyne, *What is Architecture?,* Routledge, 2002
9. Aaron Betsky & Erik Adigard, *Architecture Must Burn: Manifestos for the Future of Architecture*, Gingko Press, 2001
10. Robert Venturi & Denise Brown, *Learning from Las Vegas*, MIT Press, 1977
11. Jane Jacobs, *The Death and Life of Great American Cities*, Random House, 1961
12. Bernard Tschumi, *Architecture and Limits I-III, in Nesbitt, Theorizing a New Agenda for Architecture hal. 150-167*, Princeton Architectural Press, 1996
13. Bauman Lyons Architects, *How to be a Happy Architect*, Black Dog Publishing, 2008

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ENAR616017
PENGANTAR KONTEKS PERKOTAAN
3 SKS

Tujuan Pembelajaran:
Mengetahui dan memahami pengetahuan dasar mengenai wujud fisik kawasan kota, serta mampu menerapkan aturan pembangunan dalam merancang arsitektur bangunan dan arsitektur kota.

Silabus:
Prinsip dan permasalahan dasar dari wujud fisik kota: Kota dan bagaimana kota tumbuh dan berkembang, wujud fisik dan pertumbuhan fisik kota, arsitektur kota yang terencana dan tidak terencana, dan site planning (perencanaan dan perancangan tapak/kapling).

Prasyarat: Telah atau sedang mengikuti Perancangan Arsitektur 4

Buku Ajar:
1. *Journal of the American Planning Association* (sesuai topik bahasan)
2. Jane Jacobs, *The Death and Life of Great American Cities*, Random House, 1961
3. Spiro Kostof, *The City Assembled: The Elements of Urban Form Through History*, Thames and Hudson, 1992
4. Richard T LeGates and Frederic Stout (eds.), *The City Reader*, Routledge, 2003
5. Lewis Mumford, *The Urban Prospect*, Harvest Book, 1968

ENAR607007
ENAR617007
PERANCANGAN ARSITEKTUR 5
9 SKS

Tujuan Pembelajaran:
Mampu merancang arsitektur dengan menerapkan pendekatan merancang tertentu; Mampu menghasilkan gagasan rancangan yang dapat dipertanggungjawabkan keterbangunannya serta memenuhi ketentuan dan peraturan bangunan umum; Mampu mendemonstrasikan penerapan pengetahuan prinsip struktur lanjut, prinsip tektonik dari detail konstruksi dan sistem utilitas bangunan.

Silabus:
Merancang dengan pendekatan tertentu yang dilaksanakan dalam unit-unit perancangan. Unit perancangan yang ditawarkan dapat terdiri dari namun tidak terbatas pada: Perancangan dengan pendekatan tipologi, perancangan berbasis bukti (*evidence-based design*), perancangan arsitektur sebagai bagian dari konteks perkotaan; perancangan dengan pendekatan teknologi, komputasi atau parametrik.Pengetahuan dan penerapan ketentuan dan peraturan bangunan

umum (*building codes*) yang mengatur aspek-aspek keselamatan, keamanan, kesehatan, kenyamanan, kemudahan/aksesibilitas.Komunikasi rancangan yang memenuhi kaidah (*drawing convention*). Kesadaran akan peran dari masing-masing disiplin ilmu perancangan, konstruksi, mekanikan dan elektrikal dalam sebuah proyek perancangan arsitektur.

Prasyarat: Telah mengikuti Perancangan Arsitektur 4

Buku Ajar:

1. Bryan Lawson, *How Designers Think*, Architectural Press, 2005.
2. Michael Hensel, *Performance-Oriented Architecture: Rethinking Architectural Design and the Built Environment*, Wiley, 2013.
3. Bernard Leupen, *Time-Based Architecture*, 101 Publishers, 2005.
4. Herman Hertzberger, *Space and the Architects*, 101 Publishers, 2000
5. Referensi lain yang relevan dengan masing-masing unit perancangan.

ENAR600008
ENAR610008
SKRIPSI
6 SKS

Tujuan Pembelajaran:
Mampu mengidentifikasi, mempelajari dan mengkomunikasikan isu-isu dalam suatu area kajian khusus yang berkaitan dengan arsitektur. Mampu mengembangkan keahlian dasar dalam hal membaca, meriset dan menulis sebuah tulisan ilmiah. Mampu mengembangkan sebuah pemahaman riset sebagai sebuah kegiatan yang menuntut pemikiran dan penalaran yang runut dan sistematis. Mampu mengembangkan sebuah pemahaman kritis terhadap berbagai isu dalam arsitektur.

Silabus:
Skripsi diawali dengan pertanyaan: “Apa yang ingin saya dalami?”. Usaha mendalami masalah dan menjelaskan pemahaman terhadap masalah tersebut dengan tingkat kedalaman yang masih terbatas, tanpa tuntutan untuk menyelesaikan masalah, menciptakan atau mengembangkan sesuatu yang baru yang memberikan kontribusi kepada disiplin ilmu arsitektur. Investigasi ringan yang dilakukan melalui studi literatur dan/atau studi kasus. Originalitas. Pilihan moda penulisan ilmiah: deskripsi, narasi, penjelasan atau argumen.

Prasyarat: Telah memperoleh 114 sks dan telah mengikuti Perancangan Arsitektur 4

Buku Ajar:

1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. David Evans & Paul Gruba, *How To Write A Better Thesis Dissertation*, Springer, 2014
3. F. Crews. *The Random House Handbook, ed, pgs 10-114*, McGraw-Hill Higher Education,1992
4. I. Border and K. Ruedi, *The Dissertation: an Architecture Student’s Handbook*, Oxford University Press, 2000.
5. T. Y. Hardjoko, *Panduan Meneliti dan Menulis Ilmiah*, Departemen Arsitektur Universitas Indonesia, 2005

ENAR600008
ENAR610008
TUGAS AKHIR
6 SKS

Tujuan Pembelajaran:
Mampu mengidentifikasi, mempelajari dan mengkomunikasikan isu-isu dalam suatu area kajian khusus yang berkaitan dengan arsitektur. Mampu mengembangkan keahlian dasar dalam analisis dan sintesis teori dan mendemonstrasikannya melalui kegiatan perancangan. Mampu mengembangkan sebuah pemahaman riset sebagai sebuah kegiatan yang menuntut pemikiran dan penalaran yang runut dan sistematis. Mampu mengembangkan sebuah pemahaman kritis terhadap berbagai isu dalam arsitektur yang ditunjukkan melalui kegiatan perancangan.

Silabus:
Tugas Akhir diawali dengan pertanyaan: “Apa yang ingin saya dalami?”. Usaha mendalami masalah dan menjelaskan pemahaman terhadap masalah tersebut dengan tingkat kedalaman yang masih terbatas dan menunjukkan pemahaman tersebut melalui perancangan arsitektur.

Prasyarat: Telah memperoleh 114 sks dan telah mengikuti Perancangan Arsitektur 5.

Buku Ajar:
1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. I. Border and K. Ruedi, *The Dissertation: an Architecture Student’s Handbook*, Oxford University Press, 2000.
3. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
4. Iain Border and Katarina Ruedi, *The Dissertation: an Architecture Student’s Handbook*, Oxford University Press, 2000.
5. Murray Fraser, *Design Research in Architecture*, Ashgate Publishing, 2013

DESKRIPSI MATA AJAR PILIHAN

ENAR600018
ENAR610018
AKUSTIK
3 SKS

Tujuan Pembelajaran:
Memahami prinsip dasar akustik ruang dan lingkungan sehingga mampu membuat analisis untuk menghasilkan desain akustik yang baik.

Silabus:
Dasar akustik, sifat bunyi, kriteria akustik ruang, sistem penguat dan isolasi bunyi, bising lingkungan.

Prasyarat: -

Buku Ajar:
1. Leslie L. Doelle & Lea Prasetio, *Akustik Lingkungan*, Erlangga,1993
2. PH Parkin & HR Humpreys, *Acoustics Noise and Buildings*, Faber and Faber Ltd, 1984
3. Finarya Legoh & Siti Hajarinto, *Buku Ajar AKUSTIK*, 2002

ENAR600019
ARSITEKTUR DI KAWASAN PESISIR
3 SKS

Tujuan Pembelajaran:
Pemahaman mengenai keterkaitan antara perubahan waktu-ruang-kultural eko-antroposistem kawasan pesisir dengan perkembangan tata ruang lingkungan dan arsitektur bangunan setempat. Pemahaman tersebut dapat meningkatkan kepeduliannya untuk menerapkan kekhasan perkembangan eko-antroposistem setempat kedalam rancangan arsitektural di wilayah pesisir. Mahasiswa diharapkan mampu mengekspresikan sendiri secara sistematis pemahaman serta kepeduliannya terhadap masalah perancangan di wilayah pesisir.

Silabus:
Air dan arsitektur, pengertian dan pengetahuan dasar kawasan pesisir, daratan benua, perairan laut, kepulauan, wakturuang-kultural, eko-antroposistem pesisir, dampak interaksi pulau-laut terhadap kehidupan-penghidupan di pesisir, tata ruang, fasilitas bangunan dan arsitektur kawasan pesisir, dinamika kegiatan bermukim dan wujud permukiman di kawasan pesisir Indonesia, perubahan lingkungan dan resiko bencana di kawasan pesisir Indonesia, perubahan waktu-ruang-kultural eko-antroposistem suatu kawasan pesisir tertentu di Indonesia, peran arsitek dalam menata ruang, bangunan dan arsitektur masa depan di kawasan pesisir.

Prasyarat: -

Buku Ajar:

1. Abimanyu Takdir Alamsyah, *Regionisme dalam Penataan Permukiman di Gugus Pulau Mikro*, unpublished doctoral dissertation, PSIL Universitas Indonesia, 2006
2. Abimanyu Takdir Alamsyah, *Menata Permukiman Pulau-Laut, Mempertahankan Keberlanjutan Bertanahair Kepulauan*, Pidato pengukuhan Guru Besar Universitas Indonesia. Depok, 2009
3. Michael R. Bloomberg and Amanda M. Burden, *Urban Waterfront Adaptive Strategies in Waterfront Vision & Enhancement Strategy,* NYC Planning, 2013
4. Subandono Diposaptono and Budiman, *Tsunami*, Penerbit Buku Ilmiah Populer, 2006
5. Charles Moore and Jane Lidz, *Water + Architecture*, Thames and Hudson Ltd, 1994
1. Malcolm Newson, *Land, Water and Development: River Basin Systems and their Sustainable Development*, Routledge,1992
2. Koen Olthuis and David Keuning, *Float!. Building on Water to Combat Urban Congestion and Climate Change*, Frame Publishers, 2010
3. Djoko Pramono, *Budaya Bahari*, Gramedia Pustaka Utama, 2005
4. Alan P. Trujillo and Harold V. Thurman, *Essentials of Oceanography, Ninth Edition*, Pearson Education *Ltd, 2008*
5. Heather Vies and Tom Spencer, *Coastal Problems: Geomorphology, Ecology and Society at the Coast*, Edward Arnold, 1995
6. Ary Wahyono, AR Patji, SS Laksono, R. Indrawasih, Sudiyono dan Surmiati Ali, *Hak Ulayat Laut di Kawasan Indonesia Timur*, Media Presindo Yogjakarta, 2000

ENAR600020
ENAR610020
ARSITEKTUR ETNIK
3 SKS

Tujuan Pembelajaran:
Memahami seluk-beluk arsitektur yang tumbuh dalam tradisi kelompok etnik sehingga dapat menjelaskan, dan menguraikan menilai unsur-unsur dan prinsip-prinsip arsitektur kelompok tertentu, mampu mamahami gejala arsitektur etnik pada umumnya dan mampu menganalisis tradisi berarsitektur suatu kelompok etnik.

Silabus:
Pengertian prinsip dan unsur arsitektur etnik, faktor pembentuk, klasifikasi simbolik, pandangan dunia dan kosmologi, ruang, tempat, waktu dan makna, antropomorfik, proses membangun.

Prasyarat: -

Buku Ajar:

1. Amos Rapoport, *House Form and Culture*, Englewood Cliffs, 1960
2. N. Egenter, *Architectural Anthropology,* Structura Mundi, 1996
3. John Hutchinson (ed.), Anthony D. Smith (ed.), *Ethnicity*, Oxford University Press, 1996
4. Roxanna Waterson, *The Living House: An Anthropology of Architecture in Southeast Asia*, Oxford University Press, 1990
5. Rodney Needham , *Symbolic Classification*, Scott Foresman Trade, 1979
6. J. Fox (ed.), *Inside Austronesian House*, The Australian National Uni- versity, 1993
7. Bourdier & N.AlSayyad (eds), *Tradition, Dwellings and Settlements: Cross-cultural Perspectives*. University Press of America, 1989

ENAR600021
ARSITEKTUR, KOTA, DAN KUASA
3 SKS

Tujuan Pembelajaran:
Pemahaman akan peran arsitektur, perencanaan dan perancangan di dalam dan antar konteks urban. Peningkatan pemahaman akan hubungan antara perancangan lingkung-bina dan kuasa (*power*). Peningkatan kesadaran untuk tidak

lagi mendefinisikan arsitektur secara sempit (hanya dalam ranah desain/seni atau profesi arsitek) yang pada umumnya memisahkan aspek visual dan spasial dengan konteks sosial, politik, ekonomi dan budaya. Pemahaman bahwa lingkung-bina disusun dari dan akan menghasilkan hubungan kuasa (*power*) tertentu di antara pemakainya dalam konteks yang spesifik.

Silabus:
Peran arsitektur dan perencanaan dalam konteks yang luas. Hubungan antara perancangan dan kuasa (*power*). Silabus disusun sesuai tema yang memperlihatkan hubungan tersebut, antara lain: Arsitektur dan *consumption*, kemiskinan dan ketidaksetaraan; informalitas; bencana, *theme parks/leisure*; ruang-ruang kolonial/post-kolonial/kebangsaan/ globalisasi/ neoliberalisme; *spatial enclaves*/zona/segregasi berdasarkan jender, ras dan etnisitas, kelas sosial, agama; keadilan ruang; perumahan, infrastruktur.

Prasyarat: -

Buku Ajar:

1. Benedict Anderson, *Language and Power: Exploring Political Culture in Indonesia*, Ithaca: Cornell University Press, 1990 (esp. chapter "The Idea of Power in Javanese Culture")
2. James D Faubion, *Michel Foucoult: Power, Essential Works of Foucault 1954-1984, New York: The New Press, 1997*
3. Kim Dovey, *Framing Spaces: Mediating Power in Built Form*, New York: Routledge, 1999
4. Lawrence Vale, *Architecture, Power and National Identity*, Routledge, 2002 (2nd ed)
5. Abidin Kusno, *Behind the Postcolonial: Architecture, Urban Space and Political Culture in Indonesia,* Routledge, 2000
6. *Abidin Kusno, After the New Order: Space, Politics and Jakarta,* University of Hawaii Press, 2013
7. Brenda S.A Yeoh, *Contesting Space in Colonial Singapore: Power Relations and the Urban Built Environment*, Singapore University Press, 2003
8. Nezar AlSayyad (ed), *Forms of Dominance: On the Architecture and Urbanism of Colonial Enterprise*, Avebury, 1992
9. Gwendolyn Wright, *The Politics of Design in French Colonial Urbanism*, Chicago: The University of Chicago Press, 1991
10. David Harvey, *Spaces of Hope*, University of California Press, 2000
11. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, 1998
12. James Holston, *The Modernist City: an Anthropological Critique of Brasilia*, The University of Chicago Press, 1989
13. Janice E. Perlman, *Favela: Four Decades of Living on the Edge in Rio de Janeiro,* Oxford University Press, 2010
14. Mike Davis, *Evil Paradise: Dreamworlds of Neoliberalism*, The New Press, New York, 2007
15. Nezar AlSayyad & Ananya Roy, *Urban Informality: Transnational Perspectives from the Middle East, Latin America and South Asia*, New York: Lexington Book, 2004
16. Rafi Segal and Eval Weizman, *Civilian Occupation: the Politics of Israeli Architecture*, Babel and Verso, 2003
17. Teresa Caldeira, *City of Wall*, University of California Press, 2000
18. Don Mitchell, *The Right to the City: Social Justice and the Fight for Public Space*, The Guildford Press, 2003
19. Edward S. Popko, *Transition: A Photographic Documentation of a Squatter Settlement*, McGraw-Hill, 1978
20. Justin Mc Guirk, *Radical Cities: Across Latin America in Search of New Architecture,* London: Verso, 2014
21. David Harvey, *Rebel Cities: From The Right to The City to The Urban Revolution,* London: Verso, 2012
22. Marshall Berman, *All That is Solid Melt into Air: The Experience of Modernity*, New York: Penguin Books, 1982
23. Leopold Lambert, *Weaponized Architecture: The Impossibility of Innocence,* DPR-Barcelona, 2013
24. Andy Merrifield, *Metromarxism: A Marxist Tale of the City*, New York: Routledge, 2001
25. Nezar AlSayyad & Mejgan Massoumi (eds), *Fundamentalist City? Religiousity and the Remaking of Urban Space*, London: Routledge, 2011
26. Edward W. Soja, *Seeking Spatial Justice,* University of Minnesota Press, 2010
27. Faranak Mirahtab & Neema Kudva (eds), *Cities of the Global South Reader,* Routledge, 2015
28. Etienne Turpin, et.al, *Jakarta: Architecture & Adaptation*, Jakarta: Universitas Indonesia Press, 2013 (esp. chapters Introduction and sections on interviews)
29. AbdouMaliq Simone, *Jakarta Drawing the City Near*, University of Minnesota Press, 2014
30. and various movies related to themes and learning objectives

ENAR600022
BANGUNAN CAGAR BUDAYA
3 SKS

Tujuan Pembelajaran:
Mahasiswa memahami pengertian dan isu-isu warisan pusaka (*heritage*) serta upaya pelestarian dalam arsitektur masa lampau, khususnya bangunan cagar budaya dan kawasan cagar budaya.

Silabus:
Pengenalan terhadap pengertian arsitektur pusaka yang meliputi aspek teraga (*tangible*) dan tidak teraga (*intangible*), serta aspek '*Outstanding Universal Value'* dari Bangunan Cagar Budaya dan Kawasan Cagar Budaya. Pembahasan tentang isu-isu kritis terkait warisan pusaka di dalam arsitektur dan kota. Pengenalan terhadap upaya pelestarian yang meliputi: pendataan, pendokumentasian, perencanaan, serta perlindungan, pengembangan dan pemanfaatan bangunan dan kawasan cagar budaya. Pembahasan preseden dari upaya pelestarian yang telah dilakukan selama ini di Indonesia.

Prasyarat: -

Buku Ajar:

1. Bernard M Feilden, *Conservation of Historic Building*, Butterworth-Heinemann Ltd, 1994
2. *Pengantar Panduan Konservasi Bangunan Bersejarah Masa Kolonial*, Pusat Dokumentasi Arsitektur dan Badan Pelestarian Pusaka Indonesia, 2011
3. Undang-undang Republik Indonesia Nomor 11 Tahun 2010 tentang Cagar Budaya
4. Peraturan Daerah Daerah Khusus Ibukota Jakarta Nomor 9 Tahun 1999 Tentang Pelestarian dan Pemanfaatan Lingkungan dan Bangunan Cagar Budaya
5. Amorim, Luiz et. Al. 'Preserving Space'. *Proceedings 6th International Space Syntax Symposium, Istanbul*, 2007 pp. 032-01 – 032-14.
6. Jean-Paul Corten et.al, *Heritage As An Asset for Inner-City Development: An Urban Manager's Guide Book*, Ammersfoort: Cultural Heritage Agency, nai010 Publishers, 2015
7. Fernando Diez, 'Heritage', dalam Cairns, Stephen, Crysler, Greig C., Heyne, Hilde. *The SAGE Handbook of Architectural Theory*. SAGE Publications, 2012, pp 274 – 86.
8. Peter J. Larkham, 'Conflict and Conservation' in *Conservation and the City*, Routledge, 1996, pp 3 – 30.
9. Adolf SJ Heuken, *Tempat-tempat Bersejarah di Jakarta*, Cipta Loka Caraka, 1997

ENAR600023
EKOLOGI PERKOTAAN
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menguasai kaidah-kaidah arsitektur yang berwawasan lingkungan, suatu karya yang juga memperhatikan nilai sosial/budaya masyarakat, daya dukung lingkungan dan berfikir secara holistik dalam merancang suatu bangunan atau kawasan.

Silabus:
Fungsi ekologis yang mampu 'menghidupi' kebutuhan pokok masyarakat kota dari mulai air bersih, pengaturan pembuangan limbah, polusi udara, transportasi, dan lahan hijau.

Prasyarat: -

Buku Ajar:

1. Amos Rapoport, *Human Aspects of Urban Form: Towards a Man Environment Approach to Urban Form and Design*, Pergamon Press, 1997
2. Amos Rapoport, *The Meaning of The Built Environment: A Non Verbal Communication Approach*, Sage Publication, 1982
3. Graham Haughton et al, *Sustainable Cities*, Cromwell Press, 1994
4. Iftikar Ahmed, ed, *Beyond Rio: The Environmental Crisis and Sustainable Livelihoods in the third world*,

MacMilan Press, 1995.
10. Moh. Soeryani, ed, *Lingkungan: Sumberdaya Alam dan Kependudukan dalam Pembangunan*, UI Press, 1987

ENAR600024
FABRIKASI DIGITAL
3 SKS

Tujuan Pembelajaran:
Mahasiswa dapat menggunakan peralatan fabrikasi digital sebagai bagian dari proses desain dengan menggunakan beragam pendekatan dan perangkat permodelan.

Silabus:
Pengenalan terhadap proses fabrikasi dalam perancangan arsitektural, teknik permodelan, pendekatan parametrik.

Prasyarat: Telah mengikuti Media Desain Digital (atau Dasar Komputer atau Komunikasi Desain Digital 2D pada Kurikulum 2012); Menguasai keterampilan dasar menggunakan perangkat lunak permodelan arsitektur (Rhinoceros, CAD, SketchUp)

Buku Ajar:
1. L. Iwamoto, *Digital Fabrication: Architectural and Material Techniques*, Princenton Architectural Press, 2009
2. B. Kolarevic ed, *Architecture in The Digital Age: Design and Manufacturing*. Spon Press, 2003
3. Mode Lab, n.d. *Foundations: Grasshopper Primer* Third Edition.
4. B. Peters and P. Terri, *Inside Smart Geometry: Expanding the Architectural Possibilities of Computational Design*, Wiley & Sons Ltd, 2013

ENAR600025
FASAD BANGUNAN TINGGI
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menguasai kaidah-kaidah fasad bangunan tinggi meliputi aspek estetika, teknis, dan ramah lingkungan.

Silabus:
Esensi kulit fasad bangunan tinggi (ketahanan terhadap gempa, gaya lateral/angin, dan kedap air); Desain fasad; Bahan dan teknologi detail fasad; *Green façade*.

Prasyarat: -

Buku Ajar:
1. Wolfgang Schueller, *Struktur Bangunan Bertingkat Tinggi*, PT Eresco, 1989
2. Mario Camp, *Skycrapers: An Architectural Type of Modern Urbanism*, Birkhauser, 2000
3. Hart, Henn, and Sontag, Multi-*Storey Buildings in Steel*, Granada Publishing, 1978
4. *Details in Architecture*
5. The Images Publishing Group, *Creative Detailing by Some of The World's Leading Architects*, The Images Publishing Group Pty Ltd, 2004

ENAR600026
FOTOGRAFI
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu membuat karya fotografi yang mengandung unsur seni dan komunikasi foto arsitektur melalui tata

olah foto dan foto esai.

Silabus:
Memahami prinsip visual komunikasi melalui media dua dimensi, pencahayaan, prinsip sistem zona, prinsip visual grafis, *exposure management*, dan sistem penyempurnaan citra foto.

Prasyarat: -

Buku Ajar:
1. Michael Freeman, *The Photographer's Eyes*, Focal Press, 2007
2. Michael Freeman, Perfect Exposure, Focal Press, 2009
3. Michael Freeman, *The Photographer's Story*, Focal Press, 2012
4. Graham Clarke, *The Photograph*, Oxford University Press, 1997
5. Marita Sturken & Lisa Carthwright, Practice of Looking". Oxford University Press, 2nd edition, 2009
6. Soeprapto Soedjono, *Pot-Poutrri Fotografi*, Universitas Trisakti, 2007

ENAR600027
GEOMETRI DAN ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Memahami peran geometri sebagai sebuah basis dalam pembentukan arsitektur; Mampu melakukan eksplorasi terhadap berbagai kemungkinan penggunaan geometri sebagai '*critical tools of analysis*' terhadap karya arsitektur yang ada maupun dalam pembentukan sebuah karya arsitektur.

Silabus:
Perkembangan pengetahuan geometri dan implikasinya terhadap perkembangan gagasan arsitektur dan kreativitas; geometri dan estetika arsitektur klasik; geometri Euclidean dan non-Euclidean dalam arsitektur; geometri dan konsep kota ideal; geometri, musik dan arsitektur; geometri dan persepsi; topologi dalam arsitektur; geometri di alam semesta; eksplorasi mekanisme pembentukan geometri dalam sebuah karya dan potensi pengembangannya lebih lanjut.

Prasyarat: -

Buku Ajar:
1. Vitruvius, *Ten Books on Architecture*, Dover Publications, 1960
2. Colin Rowe, *Mathematics of an Ideal Villa*, MIT Press, 1976
3. Peter Davidson & Donald L. Bates, *Architecture after Geometry,* Architectural Design, 1999
4. Irenee Scalbert, Archis, *Towards a Formless Architecture: The House of the Future by A+P Smithson*, Archis, 1999
5. D'Arcy Thompson, *On Growth and Form*, Dover Publications, 1992
6. Jane Jacobs, *The Death and Life of Great American Cities*, RandomHouse, 1961
7. Elizabeth Martin, *Architecture as a Translation of Music in Pamphlet Architecture 16*, Princeton Architectural Press, 1994

ENAR600028
KESEHARIAN DAN ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Memahami eksistensi fenomena keseharian (*everyday*) sebagai sebuah pendekatan dalam berarsitektur; mampu menempatkan posisi disiplin ilmu arsitektur secara tepat dalam menanggapi berbagai fenomena ruang hidup sehari-hari.

Silabus:
Pengertian dan latar belakang historis konsep *'everyday'* dalam arsitektur; ruang domestik; estetika dalam arsitektur dan *'everyday'*; konsep kota ideal dan kaitannya dengan *'everyday'*; ruang *cyber* dan ruang virtual; fenomena *'everyday'* dalam ruang urban; pendekatan partisipasi dalam arsitektur.

Prasyarat: -

Buku Ajar:
1. Steven Harris & Deborah Berke (eds.), *Architecture of the Everyday*, Princeton Architectural Press, 1997
2. Sarah Wigglesworth & Jeremy Till (eds.), *The Everyday and Architecture*, Architectural Design, 1998
3. Michel de Certeau, *The Practice of Everyday Life*, University of California Press, 1998
4. Malcolm Miles, *The Uses of Decoration: Essays in the Architectural Everyday*, Wiley, 2000
5. Arnstein, *Ladder of Citizen Participation*, 1969

ENAR600029
ENAR610029
KOMUNIKASI DESAIN DIGITAL 2D
3 SKS

Tujuan Pembelajaran:
Mahasiswa dapat menggunakan media gambar 2D digital dalam alur kerja perancangan arsitektural, dapat memilih dan menggunakan ragam cara dan teknik dalam menggambar untuk tujuan tertentu.

Silabus:
Gambar berbasis CAD dan NURBS, gambar berbasis *pixel*, gambar berbasis *vector*, representasi arsitektural dan diagram.

Prasyarat: Telah mengikuti Desain Dasar 2 (atau Teknik Komunikasi Arsitektur atau Teknik Komunikasi Arsitektur Interior pada Kurikulum 2012)

Buku Ajar:
1. Hamad M.M, *Autocad 2010 Essentials,* Jones and Bartlett, 2010
2. Robert McNeel & Associates, *Rhinoceros: NURBS Modelling for Windows*, USA, 1998
3. H Sondermann, *Photoshop in Architectural Graphics*, SpringerWienNewYork, 2009

ENAR600030
ENAR610030
KOMUNIKASI DESAIN DIGITAL 3D
3 SKS

Tujuan Pembelajaran:
Mahasiswa dapat menggunakan peralatan permodelan digital 3D dalam alur kerja perancangan arsitektural, dapat memilih dan menggunakan ragam jenis permodelan digital, dapat membuat representasi grafis yang tepat dari model yang dibuat.

Silabus:
Model digital berbasis Polygon dan NURBS, berpindah antar-platform, proses pengolahan representasi 2D dari model 3D, teknik render.

Prasyarat: Telah mengikuti Desain Dasar 2 (atau Teknik Komunikasi Arsitektur atau Teknik Komunikasi Arsitektur Interior pada Kurikulum 2012)

Buku Ajar:
1. Hamad M.M, *Autocad 2010 Essentials,* Jones and Bartlett, 2010
2. Robert McNeel & Associates, *Rhinoceros: NURBS Modelling for Windows*, USA, 1998
3. H Sondermann, *Photoshop in Architectural Graphics*, SpringerWienNewYork, 2009
4. Brightman, M. 2013. *The Sketchup Workflow for Architecture*. Wiley.

ENAR600031
LINGKUNGAN DAUR HIDUP
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menilai kelayakan lingkungan bagi pemakai sesuai tingkatan daur hidupnya seperti: lahir, kanak-kanak, remaja, dewasa, tua dan mati dari segi tempat dan ritus.

Silabus:
Pengenalan; garis besar dan pengertian lingkungan daur hidup baik di kota maupun di desa/ lingkungan tradisional; meliputi kejiwaan ibu yang mengandung; lingkungan kelahiran; rumah; rumah sakit; dan rumah bersalin. Ritus- ritus yang menyangkut kelahiran, lingkungan bayi dan orang tuanya; pertumbuhan daya kenal bayi; pertumbuhan kejiwaan kanak-kanak; lingkungan bermain dan aturan bermain sebagai perjanjian tak tertulis. lingkungan rumah, dekat rumah, dan prasekolah. Orang tua dan pengasuh anak; ujian menjadi remaja dan ritualnya, ruang gerak remaja; ruang berkarya dewasa dan ritus perkawinan. Lingkungan kerja; lanjut usia; ruang kematian dan ritusnya

Prasyarat: -

Buku Ajar:

1. Koentjaraningrat, *Ritus-Ritus Peralihan di Indonesia*, Balai Pustaka, 1979
2. A.Van Gennep, *The Rites of Passage*, (Terjemahan M. Viadon dan G), University of Chicago Press, 1960
3. Erik H Erickson, *Life Cycle Completed*, WW Norton & Company, 1997
4. Howard E. Gruber and J Jacques Voneche, *The Essential Piaget*, Gruber, NY: Basic Book, 1977
5. Saya S Shiraishi, *Young Heroes*, Cornell University Press, 1997.
6. Film: *Not One Less*, 1999; *Freedom Writers*, 2007*;The Human Body*: *The Incredible Journey from Birth to Death* (BBC, The Original BBC TV Series Plus: The Making of The Human Body), *Human Instinct* (BBC, The Complete Series)

ENAR600032
MANAJEMEN PROYEK
3 SKS

Tujuan Pembelajaran:
Mengembangkan pengetahuan tentang proses kegiatan dan manajemen proyek perencanaan dan pembangunan gedung, terutama dalam administrasi aspek teknik maupun ekonomi bangunan pada tahap awal, perancangan, konstruksi, hingga akhir proyek. Melatih kemampuan untuk membahas kandungan dan secara kritis dokumen administrative dalam manajemen proyek, ketentuan perundang-undangan serta standar pembangunan. Melatih kemampuan untuk menyusun proposal TOR, dokumen lelang, administrasi perancangan, administrasi konstruksi, atau Panduan Proyek (*Project Manual*) jasa konstruksi dalam proyek sederhana, termasuk bekerja bersama klien nyata.

Silabus:
Sebagai suatu produk, manajemen proyek adalah rekaman proses kegiatan proyek secara menyeluruh, baik sebagai pedoman kerja, sarana koordinasi maupun pengendalian suatu proyek. Sebagai suatu proses, manajemen proyek juga merupakan rangkaian kegiatan yang menghasilkan dan bertanggung jawab terhadap kuantitas rekaman seluruh tahapan kegiatan manajemen proyek, dalam satu fungsi yang multi disiplin. Mata ajaran ini memperkenalkan keterampilan yang diperlukan untuk manajemen proyek sepanjang daur hidupnya dengan model kronologis.

Prasyarat: -

Buku Ajar:

1. PMI, *A Guide to Project Management Body of Knowledge (PMBOK Guides) 3 ed,* Project Management Institute, 2004
2. J.M Amos and B.R Sarchet, *Management for Engineers,* Prentice-Hall Inc,
3. D Sbarrie, *Professional Construction Management,* McGraw-Hill, 1986
4. D Cadman and L Austin-Crowe, *Property Development,* EF & N Spon, 1978

ENAR600033
PRINSIP-PRINSIP PERANCANGAN KOTA
3 SKS

Tujuan Pembelajaran:
Memahami teori spasial-rancang kota dan aplikasi ke perancangan fisik kota, memahami metoda *urban design*, *inquiry and design research*, memiliki wawasan mengenai pandangan dan pendekatan proses perancangan kota; memahami dasar-dasar spasial-rancang kota dan mampu menginterpretasikannya ke dalam kasus suatu wilayah kota.

Silabus:
Prinsip-prinsip sistem tatanan pada dua dan tiga dimensi (citra, tipe, skala, preseden). Kondisi ruang kota dan ruang antara bangunan, teori spasial dan tipologi ruang kota, elemen-elemen dan unsur-unsur rancang kota, eksplorasi konsep dan metoda dasar penelitian melalui *urban design inquiry and design research*, studi tata ruang dan lingkungan. Komponen rancang kota sebagai kendali proses pembentukan lingkungan fisik suatu kawasan kota (tata guna lahan, intensitas bangunan, GSB dan GSJ, KLB dan KDB, amplop bangunan, ruang terbuka hijau, sirkulasi, parkir, infrastruktur, konservasi dan koridor visual/townscape).

Prasyarat: -

Buku Ajar:

1. Hamid Shirvani, *Urban Design Process*, Van Nostrand Reinhold Co, 1987
2. Ali Madanipour, *Design of Urban Space: an Inquiry into a Socio-Spatial Process*, John Wiley and Sons, 1996
3. Gideon S. Golany, *Ethics and Urban Design: Culture, Form and Environment*, Wiley, 1995
4. Matthew Carmona, et al, *Public Places - Urban Spaces*, Architectural Press, 2003
5. Ray Gindroz, *The Urban Design Handbook: Techniques and Working Methods*, W.W. Norton and Company, 2003
6. Geoffrey Broadbent, *Emerging Concepts in Urban Space Design*, Taylor and Francis, 1995
7. Congress for the New Urbanism, *Charter of the New Urbanism*, McGraw-Hill Professional, 1999
8. Allan B. Jacobs, *The Great Streets*, The MIT Press, 1995
9. Roger Trancik, *Finding Lost Space Theories of Urban Design*, Van Nostrand Reinhold Company, New York, 1986
10. Christopher Alexander, *The Oregon Experiment*, Oxford University Press, 1975
11. Yoshinobu Ashinara, *The Aesthetics Townscape*, MIT Press, 1984
12. Edmund Bacon, *Design of Cities*, Thames and Hudson, 1967.
13. Kevin Lynch, *The Image of The City*, MIT Press 1960
14. Kevin Lynch, *What is Time and Place,* MIT Press 1972

ENAR600034
PERANCANGAN RUANG DALAM
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan dan pengetahuan mengenai konsep, prinsip, elemen dan sistem pada ruang interior yang mendukung kenyamanan, keamanan dan kesehatan manusia (*well-being*) dengan mempertimbangkan faktor manusia (*human factors*) dalam perancangannya.

Silabus:
Prinsip dan permasalahan perancangan ruang interior, elemen ruang interior, atmosfer dan persepsi ruang, material dan konstruksi interior, faktor-faktor kenyamanan ruang, faktor manusia dan desain universal, tipologi ruang interior.

Prasyarat: -

Buku Ajar:

1. Binggeli,Corky, *Building Systems for Interior Designer*, Wiley, 3rd edition, 2016
2. Caan, Sashi. *Rethinking Design and Interiors: Human Beings in the Built Environment*. Laurence King Publishing, 2011.
3. Dodsworth, Simon. *Fundamental of Interior Design*, Ava Publishing, 2009
4. Farrelly, Lorraine. *Construction+Materiality*. Ava Publishing, 2009
5. Leydecker, Sylvia. *Designing Interior Architecture: Concept, Typology, Material, Construction*. Basel. Birkhauser, 2013
6. Mesher, Lynne. *Basic Interior Design: Retail Design*. Ava Publishing, 2009

ENAR600035
ENAR610035
PERANCANGAN RUANG LUAR
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menerapkan prinsip-prinsip perancangan tapak dan kawasan lingkungan secara terpadu.

Silabus:
Prinsip dan permasalahan perancangan ruang luar, orientasi massa, kondisi tapak alam, peran elemen ruang luar, studi topografi lahan/ tapak dan lingkungan, pohon dan tanaman, tipologi dan analisis perancangan ruang luar, metoda perancangan tapak dan kawasan.

Prasyarat: -

Buku Ajar:
1. Joseph DeChiara & Lee L. Koppelman, *Standard Perancangan Tapak*, Penerbit Erlangga, 1994
2. Albert J. Rutledge, *Anatomy of a Park: The Essentials of Recreation Area Planning and Design*, ASLA, 1971
1. William A. Mann, *Landscape Architecture, An Illustrated History in Timeless, Site Plans and Biography*, 1993
2. Geoffrey & Susan Jellicoe, *The Landscape of Man, Shaping the Environment From Prehistory to the Present Day*, Thames and Hudson Ltd,1995
3. Charles W. Moore et al, *The Poetics of Gardens*, MIT Press, 1993
4. Francis DK Ching, *Architecture: Form, Space and Order*, Erlangga, 1996

ENAR600036
PERENCANAAN KOTA
3 SKS

Tujuan Pembelajaran:
Mahasiswa memahami sejarah dan teori perencanaan kota melalui survey kesejarahan dan/atau melalui tema-tema kunci. Mahasiswa memiliki pemahaman akan (1) bagaimana ruang kota berfungsi (dilihat dari konteks sejarah) dilandasi oleh pencarian tatanan ruang; (2) paradigm-paradigma kunci dalam pemikiran perencanaan kota. Mata kuliah ini akan disusun seputar prinsip bahwa sejarah perencanaan kota adalah juga teori perencanaan kota yang terikat oleh etika perencanaan.

Silabus:
Silabus disusun mengikuti tatanan kronologis dan dibagi dalam 5 bagian: (1) refleksi terhadap ide perencanaan, asal muasal dan praktek perencanaan; kota industri dan '*housing question*'; pencarian tatanan spasial; (2) kota modernis; eksperimen kolonial dan pasca-kolonial; (3) mimpi suburban (warisan perencanaan kota Amerika); dari *ghetto* ke kota-kota panutan (kontrol rasial & etnis); (4) kota dan kewarganegaraan di momen sejarah yang berbeda; peraturan dan pengaturan ruang (dasar peraturan dari perencanaan); krisis perkotaan, manajerial perkotaan dan kota bisnis; membangun kota kelas dunia di global South; (5) teori-teori yang berkompetisi di perencanaan dan keadilan; melihat perencanaan melampaui neo-liberalisme: paradigma yang bermunculan di perencanaan.
Alternatif lainnya, silabus dapat pula menginterupsi tatanan kronologis dan disusun menyerupai kelas survey yang menata materinya ke dalam tema-tema kunci, seperti: *Empire*; Kolonial/Paska-kolonial; Modernitas & Alternatif Modernitas; Kapitalisme Pacific Rim dan Transnational Urbanisme; Ras/Etnis, Perencanaan dan Real Estate; Kota dan Desa; Marginalitas; Pembangunan kembali Kota; Kota Entreprenur, Perencanaan Dystopia dan Paska Perkotaan.

Prasyarat: -

Buku Ajar:
1.Selected articles from *Journal of Planning Theory & Practices*; *Cities, Space & Polity, International Journal on Urban Regional Research*; *Journal of Planning Education and Research*; *Journal of Urban Studies*; *Journal of Urban Forum*; *Journal of Urban History, Environment and Urbanization*; *Antipode*; *Journal of Planning Literature*

2.Paul H. Gleye, "City Planning versus Urban Planning: Resolving Profession's Bifurcated Heritage," in *Journal of Planning Literature*, 2015, Vol 30(1), 3-17.
3. John Friedmann. *Planning in the Public Domain: From Knowledge to Action,* 1987
4. Peter Hall, *Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century*, Blackwell Publishing, 2002 (3rd ed)
5. Friedrich Engels, *The Housing Question,* Lawrence and Wishart, Ltd, 1942
6. Mike Davis, *Planet of Slum,* Verso, *2007*
7. Dolores Hayden, *Redesigning the American Dream: The Future of Housing, Work, and Family Life,* W.W Norton & Company, 2007 (2nd ed)
8. Christine Boyer, *Dreaming the Rational City: The Myth of American City Planning,* MIT Press, 1986
9.Kermit C Parsons & David Schuyler (eds), *From Garden City to Green City: The Legacy of Ebenezer Howard,* Baltimore: The John Hopkins University Press, 2002
10.The Congress for the New Urbanism. 2001. Charter.
11.Robert Caro, *The Power Broker: Robert Moses and the Fall of New York*, Vintage, 1975
12.Marshall Berman, *All That is Solid Melts into Air,* Penguin Book, 1988
13.James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, 1999
14.Nezar AlSayyad (ed), *Forms of Dominance: On the Architecture and Urbanism of the Colonial Enterprise,* Avebury, 1992
15.Lisa Peattie, *Planning: Rethinking Ciudad Guayana,* University of Michigan Press, 1987
16.James Holston, *The Modernist City: An Anthropological Critique of Brasilia,* University of Chicago Press, 1989
17.June Manning Thomas and Marsha Ritzdorf (eds), *Urban Planning and the African American Community: In the Shadows,* SAGE Publication, Inc, 1996
18.Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States*, Oxford University Press, 1987
19.St Clare Drake & Horace R. Cayton, *Black Metropolis: A Study of Negro Life in a Northern City*, University of Chicago Press, 1993.
20.Edward Banfield, *Unheavenly City Revisited*, Waveland Press, 1990
21.Susan S Fainstein & Scott Campbell, *Reading in Planning Theory*, Wiley-Blackwell, 2011
22.Lewis Mumford, *The City in History: Its Origin, Its Transformation and Its Prospects*, A Harvest/HBJ Books, 1961
23.Stephen Graham & Simon Marvin, *Splintering Urbanism: Networked Infrastructures, Technological Mobilities, and the Urban Condition*, 2001
24.Aihwa Ong & Ananya Roy (eds), *Worlding Cities and the Art of Being Global*, Wiley-Blackwell, 2011
25.Patsy Haley, E.A Silva, et.al, "*Routledge Handbook on Planning Research Methods*" Routledge, 2015.
26.Faranak Mirahtab, *Cities in the Global South Reader*, Routledge, 2014.

ENAR600037
PSIKOLOGI ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Mampu menggunakan pengetahuan konsep dasar proses psikologik untuk identifikasi dan analisis kebutuhan manusia dalam menggunakan ruang bangunan maupun ruang luar.

Silabus:
Hubungan antara arsitektur dan perlilaku manusia, motivasi, kebutuhan dan nilai sebagai dasar tindakan manusia, persepsi Gestalt, persepsi ekologi (Gibson), *affordances* dan penerapannya dalam arsitektur, pengertian kognisi dan penerapannya dalam arsitektur, *personal space, privacy, territoriality, crowding, post occupancy evaluation* (POE).

Prasyarat: -

Buku Ajar:
1. Bell, Fischer and Greene, *Environmental Psychology*, Harcourt Publisher, 1996
2. Bryan Lawson, *The Language of Space*, Architectural Press, 2001
3. Byron Mikellides, *Architecture for People: Exploration in a New Humane Environment*, 1980

4. Wolfgang F.E. Preisser, Harvey Z. Rabinowitz, Edward T. White, *Post-Occupany Evaluation*, Van Nostrad Reinhold, 1988
5. Dak Kopec, *Environmental Psychology for Design* , Fairchild Books, 2012

ENAR600038
ENAR610038
REAL ESTATE
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan tentang real estate dan kaitannya dengan arsitektur serta lingkungan binaan.

Silabus:
Deskripsi Real Estate, Memahami proses pengembangan proyek Real-Estate (8 tahap *Real Estate Development Process*), mengetahui dan memahami perhitungan cash-flow untuk proyek property sewa dan jual secara garis besar (proyek jangka pendek & jangka panjang) dan kelayakan sederhana.

Prasyarat: -

Buku Ajar:
1. Mike A. Miles, et.al, *Real Estate Development: Principles and Process*, Urban Land Institute, 2000
2. Carl Gunther, *Real Estate Fundamentals (Study Guide)*, 1995
3. Hartono Poerbo, *Tekno Ekonomi Bangunan Bertingkat Banyak*, Djambatan, 1993
4. Ralph Basile, et.al, *Downtown Development Handbook*, Urban Land Institute, 2000
5. Adrienne Schmitz, *Residential Development Handbook*, 3rd ed, Urban Land Institute, 2004
6. Dean Schwanke, *Mixed Used Development Handbook*, 2nd ed, Urban Land Institute, 2003

ENAR600039
STUDI KELAYAKAN PROYEK
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menyusun rencana dan menjelaskan kelayakan suatu proyek, program pengembangan atau kegiatan usaha sederhana dengan jelas, lengkap dan sistematis.

Silabus:
Pengetahuan dasar meliputi analisis kebutuhan, kelayakan teknis dan pertimbangan lingkungan, kelayakan waktu, aspek sosial budaya, kelayakan hukum, kelayakan ekonomi dan pasar. Latihan merumuskan permasalahan, analisis SWOT, menyusun lingkup, jenis dan produk kegiatan, strategi, SOP, analisis masalah pengorganisasian dan pengelolaannya, menyusun rencana organisasi, sumberdaya manusia dan manajemen, memperhitungkan kelayakan ekonomi dan pemasaran serta aspek kelayakan hukum dan konsekuensi kelembagaannya.

Prasyarat: -

Buku Ajar: -
1. *Engineering Economy*, 7th Ed. Leyland and Blank
2. Rodney Overton, *Feasibility Studies Made Simple*, Martin Books, 2007
3. Kasmir & Jakfar, *Studi Kelayakan Bisnis*, Penerbit Kencana, 2012
4. Husein Umar, *Studi Kelayakan Bisnis*, Gramedia, 2009

ENAR600040
ENAR610040
TATA CAHAYA
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu merancang tata pencahayaan interior dan eksterior dengan pencahayaan buatan maupun alami melalui proses pembelajaran secara kritikal, aktif dan kolaboratif berbasis masalah fungsional dan estétika.

Silabus:
Dasar cahaya, warna, cahaya alami, cahaya buatan, distribusi cahaya, Pencahayaan interior, Pencahayaan eksterior (fasade rumah & bangunan tinggi), urban lighting

Prasyarat: -

Buku Ajar:
1. William M.C. Lam, *Perception and Lighting as Formgivers for Architecture*, McGraw-Hill, 1977
2. Norbert Lechner, *Heating Lighting Cooling*, 2nd edition, translated by PT RajaGrafindo Persada, 2007
3. John E Flyinn, *Architectural Interior System, Van Nostrand Reinhold Environmental Engineering Series*, Van Nostrand Reinhold Company, 1971

ENAR600041
TEORI DAN METODE PERANCANGAN LINGKUNGAN
3 SKS

Tujuan Pembelajaran:
Mengetahui pemikiran dan cara-cara merancang lingkung bangun sehingga mampu menjelaskan dasar pemikiran dan menerapkan salah satu cara merancang lingkung bangun dalam bentuk tulisan dan gambar (sketsa).

Silabus:
Teori dan cara berpikir: Axiomatik dan redukatif; Teori dan cara mengenal masa- lah lingkung bangun, pengamatan lingkungan dan bangunan pembentuknya; Teori dan cara memahami masalah lingkung bangun, analisis lingkungan; Teori dan cara menyelesaikan ma- salah perancangan lingkungan bangun.

Prasyarat: -

Buku Ajar:
1. Gunawan Tjahjono, *Metode Perancangan: Suatu Pengantar untuk Arsitek dan Perancang*, 1998
2. Christoper Alexander, *Notes on the Synthesis of Form*, Harvard University Press, 1994
3. Christoper Alexander, *Timeless Way of Buildings*, Oxford University Press, 1979

ENAR600042
TEORI PERUMAHAN KOTA
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menganalisis dampak dari perencanaan pembangunan perumahan di perkotaan.

Silabus:
Permasalahan perumahan di perkotaan, studi tipologi dan lingkungan perumahan, metoda dan tipologi membangun, studi ekonomi dan manajemen perumahan, studi perencanaan dan perancangan perumahan kota.

Prasyarat: -

Buku Ajar:
1. Norma L. Newmark & Patricia J. Thompson, *Self, Space & Shelter: An Introduction to Housing*. New York: Harper and Row, Publisher, Inc., 1977
2. John F. C. Turner, *Housing By People: Towards Autonomy in Building Environtments*, Marion Boyars Publishers Ltd, 1976
3. Graham Towers, *At Home in The City: An Introduction to Urban Housing Design*, 2005
4. Paul Balchin & Maureen Rhoden. *Housing: The Essential Foundations,* Routledge, New York 2003
5. Abidin Kusno, *Politik Ekonomi Perumahan Rakyat dan Utopia Jakarta*, 2012

ENAR600043
UTILITAS BANGUNAN
3 SKS

Tujuan Pembelajaran:
Mahasiswa mampu menjelaskan sistem utilitas di dalam bangunan bertingkat tinggi (melebar maupun menjulang), sehingga bangunan tersebut dapat berfungsi dengan baik ditinjau dari segi keamanan dan kenyamanan terhadap penggunanya.

Silabus:
Sistem pengadaan air bersih dan pembuangan air kotor/ limbah, sistem pengudaraan buatan, sistem pencahayaan buatan, tata suara, CCTV, telepon, penangkal petir, sistem transportasi vertikal, sistem pembersih bangunan.

Prasyarat: -

Buku Ajar:
1. John S Reynolds and Benjamin Stein, *Mechanical and Electrical Equipement for Buildings*, John Willey and Sons, 1999
2. Ken Yeang, *The Skyscraper Bioclimatically Considered*, Academy Press, 1998
3. Esmond Reid, *Understanding Building*, MIT Press, 1984
4. Hartono Poerbo, *Utilitas Bangunan: Buku Pintar untuk Mahasiswa Arsitektur-Sipil*, Djambatan, 1992

ENAR600044
WORKSHOP TEKTONIK
3 SKS

Tujuan Pembelajaran:
Mampu menghasilkan rancangan konstruksi berdasarkan pengetahuan tektonik dan merealisasikannya rancangan tersebut dengan menerapkan keterampilan membuat (*making*).

Silabus:
Merancang dengan pendekatan eksplorasi bahan: materialitas bahan, konstruksi, skill dan teknik konstruksi, detail dan finalisasi.

Prasyarat: -

Buku Ajar:
1. Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, MIT Press, 2001
2. Richard Weston, *Material, Form and Architecture*, Yale University Press, 2003
3. Markus Heinsdorff, *Die Bambusbauten, The Bamboo Architecture, Design with Nature*, Design Media Publishing, 2013
4. Francis DK Ching, *Building Construction Illustrated,* Wiley, 2014

ENAR600045
ENAR610045
KAJIAN MANDIRI
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan pengetahuan lanjut arsitektural dalam berbagai topik dan menerapkannya dalam pengembangan gagasan intervensi arsitektural.

Silabus:

Kajian pengetahuan arsitektural lanjut dalam sebuah konteks tertentu; pengembangan gagasan intervensi arsitektural berdasarkan kajian mendalam atas konteks dan kajian teoritis dalam topik yang terkait.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600046
ENAR610046
KAJIAN PERANCANGAN
3 SKS

Tujuan Pembelajaran:
Mampu mengembangkan keahlian dasar dalam hal membaca, meriset dan menulis sebuah tulisan ilmiah yang terkait dengan kegiatan perancangan.

Silabus:
Mengkomunikasikan proses perancangan dalam bentuk tulisan yang memenuhi kaidah penulisan ilmiah. Mengkomunikasikan secara runut dan sistematis melalui tulisan hasil kajian literatur, pengembangan metoda perancangan dan proses perancangan.

Prasyarat: Sedang mengikuti Tugas Akhir.

Buku Ajar:
1. John Zeisel, *Inquiry by Design*, W. W. Norton & Company, 2006
2. David Evans & Paul Gruba, *How To Write A Better Thesis Dissertation*, Springer, 2014
3. F. Crews. *The Random House Handbook, ed, pgs 10-114*, McGraw-Hill Higher Education,1992
4. I. Borden and K. Ruedi, *The Dissertation: an Architecture Student's Handbook*, Oxford University Press, 2000.
5. T. Y. Hardjoko, *Panduan Meneliti dan Menulis Ilmiah*, Departemen Arsitektur Universitas Indonesia, 2005

ENAR600047
ENAR610047
KAPITA SELEKTA
3 SKS

Tujuan Pembelajaran:
Mahasiswa memiliki wawasan dalam berbagai topik pengetahuan yang mendukung penguasaan pengetahuan arsitektur dan keterampilan desain.

Silabus:
Topik-topik pilihan yang relevan dengan pengetahuan arsitektur, keterampilan desain dan perkembangannya.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600048
ENAR610048
KERJA PRAKTEK/KKN
3 SKS

Tujuan Pembelajaran:
Mahasiswa memahami proses perencanaan, pelaksanaan dan evaluasi pada aktifitas rekayasa. Mahasiswa mengetahui pola kerja tim bersama disiplin ilmu terkait di dunia profesi dalam arti luas, mengenal dan memahami proses per-

encanaan, perancangan dan pelaksanaan suatu lingkung-bina dengan ikut terlibat dalam kapasitas sebagai Asisten Perencana/Perancang, Asisten Pelaksana Lapangan/Asisten Pengawas Lapangan atau Arsitek Komunitas.

Silabus:
Proses pengelolaan proyek secara nyata di perusahaan, biro bangunan atau organisasi. Metoda penyusunan proposal sederhana dan metoda pelaporan hasil kerja lapangan. Metoda presentasi. Metode pengolahan bahan, data, alat, sumberdaya manusia dan koordinasi antar stake holders dalam aktifitas perencanaan rekayasa dan implementasinya.

Prasyarat: -

Buku Ajar: -

ENAR600049
ENAR610049
TOPIK KHUSUS PERANCANGAN ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan mengenai perkembangan pengetahuan arsitektur terkini dan penerapannya dalam perancangan arsitektur.

Silabus:
Kajian perkembangan teori arsitektur kontemporer; perkembangan metode perancangan arsitektur; perkembangan teknik representasi arsitektur; perkembangan dalam disiplin ilmu lain yang mempengaruhi perkembangan teori dan metode perancangan arsitektur.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600050
ENAR610050
TOPIK KHUSUS PERANCANGAN PERKOTAAN
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan mengenai perkembangan pengetahuan perkotaan terkini dan penerapannya dalam perancangan perkotaan.

Silabus:
Kajian perkembangan teori perancangan kota; perkembangan metode perancangan kota; kajian isu-isu terkini yang terkait perancangan kota; perkembangan dalam disiplin ilmu lain yang mempengaruhi perkembangan teori dan metode perancangan kota.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600051
ENAR610051
TOPIK KHUSUS PERUMAHAN DAN PERMUKIMAN KOTA
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan mengenai perkembangan pengetahuan perumahan dan permukiman kota terkini.

Silabus:
Kajian perkembangan teori perumahan dan permukiman kota; kajian isu-isu terkini yang terkait dengan perumahan dan permukiman kota.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600052
ENAR610052
TOPIK KHUSUS SEJARAH, TEORI DAN KRITIK ARSITEKTUR
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan historis dan teoritis yang terkait perkembangan arsitektur.

Silabus:
Kajian sejarah arsitektur dari berbagai periode; perkembangan wacana sejarah dan teori arsitektur.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan

ENAR600053
ENAR610053
TOPIK KHUSUS TEKNOLOGI BANGUNAN
3 SKS

Tujuan Pembelajaran:
Memiliki wawasan mengenai perkembangan pengetahuan sustainabilitas terkini dan penerapannya dalam perancangan arsitektur.

Silabus:
Kajian perkembangan teori teknologi bangunan dan lingkungan berkelanjutan; kajian isu-isu terkini terkait sustainabilitas; inovasi praktik perancangan arsitektur yang terkait sustainabilitas; inovasi struktur, konstruksi, bahan dan sistem bangunan.

Prasyarat: -

Buku Ajar: Disesuaikan dengan topik yang ditawarkan