



MODUL HANDBOOK INTERIOR MATERIAL AND APPLICATION

Bachelor Degree Program
Department of Interior Design
Faculty of Creative Design and Digital Business

Institut Teknologi Sepuluh Nopember



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Description of Course Unit

Course unit title	Interior Material and Application
Course unit code	DI184417
Type of course unit (compulsory, optional)	Compulsory
Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)	First Cycle Bachelor
Year of study when the course unit is delivered (if applicable)	2 nd year
Semester/trimester when the course unit is delivered	4 th
Number of ECTS credits allocated	4,8 Credits
Name of lecturer(s)	<ol style="list-style-type: none"> 1. Dr. Firman Hawari, S.Sn., M.Ds., 2. Dr. Ir. Prasetyo Wahyudie, M.T.
Learning outcomes of the course unit	<ol style="list-style-type: none"> 1. Mastering theoretical concepts in interior materials, structures and construction, building utilities, ergonomics, and construction project management while completing Furniture Design, Interior Design 3, CAD 1.2, and the entire interior. 2. Capable of developing presentation problem solving strategies and designing communication based on verbal and visual presentation concepts and theories using a variety of presentation media. 3. Become socially sensitive and care about the community and its environment. 4. Have solutions for interior-architecture design factors such as Green Design, Eco Design, and Go Green buildings. 5. Capable of developing other materials, composites, or thinking about waste utilization with the potential for new product development and revenue. 6. Capable of orally presenting knowledge of interior materials in design language that is interesting and innovative.
Mode of delivery (face-to-face, distance learning)	Face-to-face
Prerequisites and co-requisites (if applicable)	<ol style="list-style-type: none"> 1. Passing from Interior Technical Drawing 2. Passing from Constructive Drawing 3. Passing from Interior Drawing
Course content	<ol style="list-style-type: none"> 1. Components for floor & stage floor and its development. 2. Components for interior wall & exterior wall and its development. 3. Components for exposed ceiling & drop ceiling and its development. 4. Components on materials and Applications on eco-friendly interior. 5. Object study interior-building 1 (one) floor to several floors. 6. Study of literature, product of industrial material used in interior / exterior and material development. 7. Material-Field study or observation of a construction project on interior-architectural work related to the finishing work of the structures and Mechanical & electrical - Plumbing.

Recommended or required reading and other learning resources/tools	<ol style="list-style-type: none"> 1. Bambang Septana, Memilih bahan konstruksi Lantai,Dinding dan Plafon,2013 2. Yanto Irawan,Panduan Praktis Menghitung beaya Membangun,Kawan Pustaka,2012 3. Adi Wardoyo, Materi Kuliah,Kuliah tamu dan Kuliah lapangan,2015,2016. 4. OPTIMAL DESIGN WITH ADVANCED MATERIALS BY DENMARK,2012 2. Multi-criteria Decision Analysis for Supporting the Selection of Engineering Materials in Produc Design 5. Journal/bulletin of building and interior materials,2013 6. Brown, R., & Farrelly, L. (2012). <i>Materials and interior design</i>. (Portfolio skills). Laurence King. 7. 2007. light-emitting smart materials. <i>Smart Materials in Architecture, Interior Architecture and Design</i>. Berlin, Boston: Birkhäuser, pp. 110-141. 8. Hecht, S. (2003), Functionalizing the interior of dendrimers: Synthetic challenges and applications. <i>J. Polym. Sci. A Polym. Chem.</i>, 41: 1047-1058. 9. Gökay Nemli, Yalçın Örs, Hülya Kalaycıoğlu (2005), The choosing of suitable decorative surface coating material types for interior end use applications of particleboard, <i>Construction and Building Materials</i>. Volume 19, Issue 4, Pages 307-312. 10. Al-Baldawi, M. T. (2015). Application of smart materials in the interior design of smart houses. <i>Civil and Environmental Research</i>, 7(2), 1-15.
Planned learning activities and teaching methods	Problem-Based Learning, Project-Based Learning and Blended Learning
Language of instruction	Bahasa and English
Assessment methods and criteria	Assignment, Project, Quiz, Midterm Exam and Final Exam

Learning Outcome (LO)

LO	Description
LO1	Able to think critically in conducting interior design research
LO2	Able to think critically and creatively in preparing interior design ideas/ concepts
LO7	Mastering basic knowledge of aesthetics, behavior and technology in the field of interior design
LO8	Mastering practical design knowledge about Geometry, building, communication (drawing), methodologies and consequences in the field of interior design

Course Learning Outcome (CLO)

CLO	Description	Mapping of CLO to LO				Weight of CLO (%)
		LO 1	LO 2	LO7	LO8	
CLO1	Able to think critically in conducting research on materials for interior design	x				20
CLO2	Able to think critically and creatively in formulating ideas about materials as part of the interior design concept		x			20
CLO3	Proficiency in fundamental understanding of material manufacturing technology and its application within the realm of interior design			x		40
CLO4	Proficiency in practical knowledge of material-based design and its consequences in the field of interior design				x	20

Assessment Plan

No.	Course Learning Outcomes*	Assessment Technique	Assessment Weight (%)
1	CLO1 Able to think critically in conducting research on materials for interior design	Researching and Creating Materials (Team-based Project)	20
2	CLO2 Able to think critically and creatively in formulating ideas about materials as part of the interior design concept	Creating Material Concepts in Design (Team-based Project)	20
3	CLO3 Proficiency in fundamental understanding of material manufacturing technology and its application within the realm of interior design	Technology of Material Manufacturing and Applications (Cognitive - Assignment)	40
4	CLO4 Proficiency in practical knowledge of material-based design and its consequences in the field of interior design	The Consequences of Material Usage (Case Method)	20
Total Assessment Weight			100

Learning Outcome Plan

Week	Sub Achievement-Subject Final Ability	Breadth (Learning Material)	Learning Method	Estimated Time	Students Learning Experience	Assessment Criteria and Indicator
1	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction 	Insight Material & Case Study	Theory about floor Theory about wall Theory about plafond Output explanation	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
2	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction 	Insight Material & Case Study	Development with Proposed Floor Topics	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
3	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction 	Insight Material & Case Study	Development with Proposed Wall Topics	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
4	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction 	Insight Material & Case Study	Development with Proposed Plafond Topics	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
5	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction 	Insight Material & Case Study	Development and Sharpening Creation of Wall & Composite innovations	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
6	<ul style="list-style-type: none"> • Engineering Drawing 1 and 2 • Freehand Drawing of 	Insight Material & Case Study	Development and Sharpening Creation of Plafond &	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe

	Interior Design • Interior Building Construction		Composite innovations			Group of 3-5 Students Collection in Groups
7	• Engineering Drawing 1 and 2 • Freehand Drawing of Interior Design • Interior Building Construction	Insight Material & Case Study	Development and Sharpening Creation of Plafond & Composite innovations	2 X 50 Minutes	Discussion and Individual Assignment	Find examples and Browsing Describe Group of 3-5 Students Collection in Groups
8	Midterm Examination		Sketch drawing		Conformity of task and theory	
9	Group/class discussion	Presentation 1	Group presentation/class	2 X 50 Minutes	Discussion and group task	Format of report
10	Group/class discussion	Presentation 2	Group presentation/class	2 X 50 Minutes	Discussion and group task	Format of report
11	Group/class discussion	Presentation 3	Group presentation/class	2 X 50 Minutes	Discussion and group task	Format of report
12	Group/class discussion	Presentation 4	Group presentation/class	2 X 50 Minutes	Discussion and group task	Format of report
13	Group/class discussion	Presentation 5	Group presentation/class	2 X 50 Minutes	Discussion and group task	Format of report
14	Creating table of content	Group progress	Class	3 X 50 Minutes	Consultation 1 and revision	Format of report
15	Creating table of content	Group progress	Class	3 X 50 Minutes	Consultation 2 and revision	Format of report
16	Final Examination			Large task and final project are complete and binded		

REFERENCES (max 5):

1. Bambang Septana, Memilih bahan konstruksi Lantai, Dinding dan Plafon, 2013
2. Yanto Irawan, Panduan Praktis Menghitung biaya Membangun, Kawan Pustaka, 2012
3. Adi Wardoyo, Materi Kuliah, Kuliah tamu dan Kuliah lapangan, 2015, 2016.
Jurnal
4. OPTIMAL DESIGN WITH ADVANCED MATERIALS BY DENMARK, 2012 2. Multi-criteria Decision Analysis for Supporting the Selection of Engineering Materials in Product Design
5. Journal/bulletin of building and interior materials, 2013

Note:

* Presentation 1 until 5 in Groups and Individual/Group Assignments have to be uploaded to group every week according to each task & topic