

Design Research

DESCRIPTION OF COURSE UNIT

Program Studi Sarjana (S1) Desain Produk
Bachelor of Industrial Design (BOLD)
2018-2023



Description of Course Unit
according to the ECTS User's Guide 2015

Course unit title	Design Research
Course unit code	DP184736
Type of course unit	Compulsory
Level of course unit	First cycle Bachelor
Year of study when the course unit is delivered	4 th year
Semester/trimester when the course unit is delivered	7 th semester
Number of ECTS credits allocated	6,4 ECTS Credits
Name of lecturer	Ellya Zulaikha, S.T., M.Sn., Ph.D.
Learning outcomes of the course unit	<p>1) Students will be able to analyze the feasibility of a design project (urgency, complexity, impact) based on scientifically justifiable data, considering aesthetic aspects, user comfort, and safety in accordance with design principles, considering the design context (such as history, lifestyle, local culture).</p> <p>2) Students will be able to create a project design plan or determine the steps to be taken in implementing the final project.</p> <p>3) Students will be able to present data and design research analysis verbally/written according to the standards of academic writing.</p> <p>4) Students will be able to present data and design research analysis visually in a design portfolio, using both print and digital media (multimedia).</p> <p>5) Students will be able to communicate the research process for the feasibility of the design project in the form of an oral presentation.</p>
Mode of delivery	face-to-face
Prerequisites and co-requisites	-
Course content	The Design Research course is an introductory course to construct the feasibility study for the final project that will be taken in the following semester. In this course, relevant design theories (that have been obtained in the previous semester) are implemented in the preparation of a final project design proposal, including Product Design Scope of Work, Design Thinking, Design Methodology, Design Ethnography, Creativity, Primary

	and Secondary Data Collection Techniques, Business Analysis, User or Customer Analysis, Environmental / Social / Regulatory Analysis, Design Concepts (Design Requirements and Objectives), Construct Preliminary Design, Academic Publications, Design Presentations. In this course, students will be able to apply the principles of design thinking in data collection, apply user-related theories to design projects, such as user experience design, ethnographic design methods, personas, mapping consumer journeys, determining design methods, and formulating design concepts, implement design concepts into design ideas, visualize design ideas using manual and digital media, present design projects through academic writing, posters, and verbal presentations.
Recommended or required reading and other learning resources/tools	<ul style="list-style-type: none"> • Anon, & Villaumbrosia. (2017). The Product Book: How to Become a Great Product Manager. Product School. • Banfield, Eriksson and Walkingshaw (2017). Product Leadership: How Top Product Managers Launch Awesome Products and Build Successful Teams. O'Reilly Media, Inc. • Cagan, Marty. (2017) INSPIRED: How to Create Tech Products Customers Love. Wiley • Kalbach, J. (2016). Mapping experiences: A complete guide to creating value through journeys, blueprints, and diagrams. " O'Reilly Media, Inc." • Nunnally, B., & Farkas, D. (2016). UX Research: Practical Techniques for Designing Better Products. • O'Grady, J. V., & O'Grady, K. V. (2017). A Designer's Research Manual, Updated and Expanded: Succeed in Design by Knowing Your Clients and Understanding what They Really Need. Rockport.
Planned learning activities and teaching methods	Discovery Learning; Case Method
Language of instruction	Indonesia
Assessment methods and criteria	Assignment, Project, Midterm Evaluation and Final Evaluation

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Course Details

DP184736

Riset Desain

Design Research

4 credits

Coordinator: Ellyia Zulaikha, S.T., M.Sn., Ph.D.

Course Form :

Course Type : Tidak Ada

Minimum Passing Grade :

C

Course Description

Mata kuliah Riset Desain merupakan mata kuliah pengantar untuk menyusun studi kelayakan untuk tugas akhir yang akan diambil pada semester berikutnya. Pada mata kuliah ini, teori-teori desain yang relevan (yang telah diperoleh pada semester sebelumnya) diimplementasikan dalam penyusunan proposal desain tugas akhir, meliputi Lingkup Karya Desain Produk, Design Thinking, Metodologi Desain, Etnografi Desain, Kreativitas, Primer dan Sekunder Teknik Pengumpulan Data, Analisis Bisnis, Analisis Pengguna atau Pelanggan, Analisis Lingkungan / Sosial / Peraturan, Konsep Desain (Persyaratan dan Tujuan Desain), Membuat Desain Awal, Publikasi Akademik, Presentasi Desain. Pada mata kuliah ini dibimbing agar mahasiswa mampu menerapkan prinsip-prinsip design thinking dalam pengumpulan data, menerapkan teori terkait pengguna untuk merancang proyek, seperti desain pengalaman pengguna, metode desain etnografis, persona, pemetaan perjalanan konsumen, menentukan metode desain, dan merumuskan konsep desain, mampu mengimplementasikan konsep desain ke dalam alternatif desain, memvisualisasikan alternatif desain menggunakan media manual dan digital, mempresentasikan proyek desain melalui tulisan akademik, poster dan presentasi verbal.

The Design Research course is an introductory course to construct the feasibility study for the final project that will be taken in the following semester. In this course, relevant design theories (that have been obtained in the previous semester) are implemented in the preparation of a final project design proposal, including Product Design Scope of Work, Design Thinking, Design Methodology, Design Ethnography, Creativity, Primary and Secondary Data Collection Techniques, Business Analysis, User or Customer Analysis, Environmental / Social / Regulatory Analysis, Design Concepts (Design Requirements and Objectives), Construct Preliminary Design, Academic Publications, Design Presentations. In this course, students will be able to apply the principles of design thinking in data collection, apply user-related theories to design projects, such as user experience design, ethnographic design methods, personas, mapping consumer journeys, determining design methods, and formulating design concepts, implement design concepts into design ideas, visualize design ideas using manual and digital media, present design projects through academic writing, posters, and verbal presentations.

Learning Outcomes Charged by the Course

Mohon untuk mengecek kurikulum yang lain juga pada pilihan di bawah ini (lalu klik **Tampilkan**). Kemudian mohon pastikan centang CPL telah sesuai dengan yang dibutuhkan oleh CPMK.

Curriculum: Kurikulum 2018 S-1 Desain Produk

Show

No.	Description
<input type="checkbox"/> 1.	Mampu menyusun konsep desain dengan mengidentifikasi sumber masalah, menganalisis, dan mensintesis kebutuhan dengan mempertimbangkan aspek estetika, kenyamanan dan keselamatan pengguna pada suatu produk <i>Able to develop design concepts by identifying problem sources, analyzing, and synthesizing needs by considering aesthetic, comfort and user safety aspects of a product</i>
<input checked="" type="checkbox"/> 2.	Mampu merancang sistem produk dan benda produk berdasarkan penguasaan metoda desain, cara produksi dan sistem distribusi, untuk menghasilkan produk yang dapat dipertanggungjawabkan terhadap kaidah desain, dampak pada lingkungan hidup, dan isu-isu sosial budaya <i>Able to design product systems and product objects based on mastery of design methods, production methods and distribution systems, to produce products that can be accounted for by design principles, impacts on the environment, and socio-cultural issues</i>
<input checked="" type="checkbox"/> 3.	Mampu membuat model untuk menyelesaikan masalah desain yang kompleks secara kreatif berdasarkan prinsip-prinsip desain dan rekayasa, dengan mempertimbangkan faktor ekonomi, keamanan, keselamatan, dan kelestarian lingkungan <i>Able to create models to solve complex design problems creatively based on design and engineering principles, taking into account economic, security, safety, and environmental sustainability factors</i>
<input checked="" type="checkbox"/> 4.	Melakukan kolaborasi dalam bidang kerja yang multi disiplin dengan memanfaatkan pengetahuan dan kemampuan desainnya <i>Collaborating in multi-disciplinary work areas by utilizing design knowledge and skills</i>
<input checked="" type="checkbox"/> 5.	Memahami konsep teoretis desain: 1. fungsi, 2. estetika, 3. ekonomi, 4. sosial dan, 5. teknologi secara umum <i>Understand the theoretical concepts of design: 1. function, 2. aesthetics, 3. economy, 4. social and, 5. technology in general</i>
<input checked="" type="checkbox"/> 6.	Ketrampilan presentasi lisan, tulisan dan multimedia dan teknologi presentasi secara umum <i>Oral, written and multimedia presentation skills and general presentation technology</i>
<input checked="" type="checkbox"/> 7.	Ketrampilan rekabentuk dan visualisasi 2 dan 3 matra secara mendalam <i>Design skills, 2 and 3 dimension visualization in depth</i>
<input type="checkbox"/> 8.	Prinsip dan metodologi desain secara mendalam <i>Design principles and methodologies</i>
<input checked="" type="checkbox"/> 9.	Konsep user centered design secara mendalam <i>The concept of user centered design in depth</i>
<input type="checkbox"/> 10.	Sejarah dan perkembangan desain produk secara mendalam <i>The history and development of product design in depth</i>
<input type="checkbox"/> 11.	Wawasan budaya dan perkembangan tren secara mendalam <i>Insight into culture and trend developments in depth</i>
<input type="checkbox"/> 12.	Prinsip dan isu terkini dalam teknologi manufaktur secara umum <i>Current principles and issues in manufacturing technology in general</i>
<input type="checkbox"/> 13.	Bisnis dan pemasaran, kewirausahaan, kode etik dan HAKI (Hak atas Kekayaan Intelektual) secara umum <i>Business and marketing, entrepreneurship, code of ethics and IPR (Intellectual Property Rights) in general</i>
<input checked="" type="checkbox"/> 14.	Konsep dan prinsip pelestarian lingkungan secara umum <i>Environmental conservation concepts and principles in general</i>

Course Learning Outcomes

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Curriculum: Kurikulum 2018 S-1 Desain Produk Show

Code	Description of CLO	Mapping of CLO to LO								Weight of CLO
		LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 9	LO 14	
CLO-1	Mahasiswa memahami konteks desain melalui pengumpulan data sekunder terkait aspek teknologi, bisnis dan pertimbangan lingkungan yang bertanggung jawab <i>Students understand the design context through secondary data collection related to responsible technology, business and environmental considerations</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20%
CLO-2	Mahasiswa dapat menentukan metode desain yang tepat untuk perumusan konsep desain <i>Students can determine the proper design method for the formulation of a design concept.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%
CLO-3	Mahasiswa memperdalam konteks desain melalui pengumpulan data primer dengan mengidentifikasi dan menganalisis kebutuhan pengguna dengan bekerjasama dengan berbagai pihak dalam pelaksanaan penelitian desain <i>Students deepen the design context through primary data collection by identifying and analyzing user needs by collaborating with various parties to implement design research.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20%
CLO-4	Mahasiswa mampu mengembangkan ide-ide desain inovatif dari hasil penelitian desain <i>Students can develop innovative design ideas by considering the results of design research.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%
CLO-5	Mahasiswa mampu mempresentasikan ide desain pada forum ilmiah dan publikasi ilmiah <i>Students can present design ideas in scientific forums and scientific publications.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%
Total Weight		12%	12%	12%	24%	6%	12%	12%	12%	100%

Assessment & Evaluation Plan

No.	Evaluation Plan	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5	Total Weight
1	Kajian Pustaka <i>Literature Review</i> Studi Kasus <i>Case Method</i>	20%	0%	0%	0%	0%	20%
2	Metode Desain <i>Design Method</i> Studi Kasus <i>Case Method</i>	0%	20%	0%	0%	0%	20%
3	Data Primer dan Analisis <i>Data Primer dan Analisis</i> Studi Kasus <i>Case Method</i>	0%	0%	30%	0%	0%	30%
4	Ideasi Solusi Desain <i>Design Ideas</i> Studi Kasus <i>Case Method</i>	0%	0%	0%	10%	0%	10%
5	Kolokium <i>Colloquium</i> Studi Kasus <i>Case Method</i>	0%	0%	0%	0%	20%	20%
TOTAL		20%	20%	30%	10%	20%	100%
Target		20%	20%	20%	20%	20%	100%

Lesson Plan

Weeknum	Course Material	Learning Method	
1	Ruang Lingkup Riset Desain Industri, aspek-aspek inovasi: feasibility, viability dan desirability dan hipotesis terhadap suatu konteks desain <i>The scope of Industrial Design Research, aspects of innovation: feasibility, viability, and desirability, and hypotheses of a design context.</i>	Metode SCL lainnya	 
2	Telusur literatur ilmiah yang relevan dan valid <i>Advanced Information Retrieval Skill to search relevant and valid scientific literature.</i>	Metode SCL lainnya	 
3	Identifikasi konteks desain dan proses desain yang relevan untuk mengerjakan proyek desain <i>Identify the design context and relevant design process for starting on a design project.</i>	Case method	 
4	Analisis perbandingan produk dengan mengidentifikasi nilai / value pada produk kompetitor, menentukan value desain yang akan dikembangkan berdasar analisis perbandingan produk yang sudah ada sebelumnya, sekaligus memprediksi target penggunaannya <i>Create a bench-marking analysis by identifying the value of competitors' products and determine the design value to be developed as well as predict the prospective target user</i>	Case method	 
5	Pengumpulan data primer kepada target pengguna dan/atau ahli di bidang terkait <i>Primary data collection to target users and/or experts in related fields</i>	Case method	 
6	Memahami target pengguna melalui Pemetaan Pengalaman Pengguna/Pelanggan dan Peta Empati <i>Understanding users by making a User/Customer Journey Map and Empathy Map</i>	Case method	 
7	Mengelompokkan dan membuat prioritas kebutuhan pengguna dengan Affinity Diagram, serta membuat Design Requirement and Objectives (DR&O) <i>Grouping and prioritizing user needs using Affinity Diagramming, then developing a Design Requirement and Objectives (DR&O)</i>	Case method	 
8	Presentasi Kemajuan Proyek Desain <i>Design Project - Progress Presentation</i>	Metode SCL lainnya	 
9	Pengembangan alternatif desain /Ide inovatif dengan visualisasi manual atau digital <i>Development of Innovative Design Ideas by Manual or Digital Visualization</i>	Case method	 
10	Seleksi desain berdasar kebaruan ide dan relevansi dengan kebutuhan pengguna <i>Design selection based on novelty and relevance to user needs</i>	Case method	 
11	Pengujian ide desain kepada calon pengguna <i>Testing design ideas to potential users</i>	Case method	 
12	Komunikasi desain dalam media digital <i>Design Communication in digital media</i>	Metode SCL lainnya	 
13	Persiapan Publikasi Ilmiah: Jenis publikasi ilmiah, Aspek publikasi ilmiah, Sistem referensi, Plagiarisme, dan Menulis Abstrak <i>Academic Publication Preparation: Types of scientific publications, Aspects of scientific publications, Reference system, Plagiarism and Writing an Abstract</i>	Metode SCL lainnya	 
14	Penulisan latar belakang, tinjauan pustaka, metode, pembahasan, kesimpulan dan referensi pada jurnal ilmiah <i>Writing background, literature review, methods, discussions, conclusions and references in scientific journals</i>	Metode SCL lainnya	 
15	Persiapan Presentasi : alur, penekanan, visualisasi, intonasi, gaya bahasa, manajemen waktu <i>Presentation Preparation: flow, emphasis, visualization, intonation, style, time management</i>	Metode SCL lainnya	 
16	Presentasi Kolokium <i>Colloquium 1</i>	Metode SCL lainnya	 
	<div>Bahasa Indonesia</div> <div>English</div>	Choose method	