

RENCANA PEMBELAJARAN SEMESTER

PROGRAM STUDI S2 SAINS DATA

FAKULTAS SAINS DAN MATEMATIKA Universitas Kristen Satya Wacana

Form						
Semester	Ganjil / Genap / Antara					
Mata Kuliah	BD311 ETHICS AND LAW IN DATA SCIENCE					
Beban	2	SKS	T/A/P:	1/1/0	W/P:	Pilihan
Dosen Pengampu	1. Prof. Hanna Arini Parhusip, M.Sc.nat 2. Prof. Dr. Adi Setiawan, M.Sc. 3. Prof. Didit Budi Nugroho, S.Si., M.Si., D.Sc.					

A. Program Learning Outcome / Capaian Pembelajaran Lulusan (CPL)

CPL01	Mampu menunjukkan sikap bertanggung jawab atas pekerjaan di bidang keahliannya secara mandiri.
CPL02	Menguasai konsep teoretis bidang pengetahuan dan keterampilan tertentu secara umum dan khusus untuk menyelesaikan masalah secara prosedural sesuai dengan lingkup pekerjaannya
CPL03	Mampu menganalisis kebutuhan perangkat lunak untuk menghasilkan spesifikasi yang tepat.
CPL04	Mampu merancang perangkat lunak yang sesuai dengan spesifikasi dan kebutuhan pengguna.
CPL05	Mampu mengimplementasikan perangkat lunak berdasarkan spesifikasi yang telah dirancang.
CPL06	Mampu berkomunikasi secara efektif, baik lisan maupun tulisan, dalam konteks profesional.
CPL07	Mampu bekerjasama dalam tim serta menunjukkan kemampuan kepemimpinan dalam konteks kerja kelompok.
CPL08	Mampu mengintegrasikan prinsip etika dan tanggung jawab sosial dalam pengambilan keputusan profesional.

B. Course Learning Outcome / Capaian Pembelajaran Mata Kuliah (CPMK)

CPMKBD31111	(CPL01) Mampu memahami dan menerapkan prinsip etika, hukum, dan tanggung jawab profesional dalam praktik data science, termasuk pengelolaan data, pemodelan, dan pengambilan keputusan berbasis data secara bertanggung jawab.
CPMKBD31182	(CPL08) Mampu memahami dan menerapkan prinsip etika, hukum, dan tanggung jawab profesional dalam praktik data science.

C. Prerequisite/Corequisite Courses /Prasyarat Mata Kuliah

Code	Course Name

D. Description/Deskripsi

This course introduces ethical and legal principles in data science practice, covering: data privacy and protection (Indonesia's UU PDP and GDPR), informed consent, data ownership, intellectual property rights, algorithmic bias and fairness, AI ethics, accountability and transparency, professional codes of conduct, case studies of data misuse, and the legal and regulatory framework for data science in Indonesia.

Mata kuliah ini membahas prinsip etika dan hukum dalam praktik data science, meliputi: privasi dan perlindungan data (UU PDP Indonesia dan GDPR), informed consent, kepemilikan data, hak kekayaan intelektual, algorithmic bias dan fairness, etika AI, akuntabilitas dan transparansi, kode etik profesi, studi kasus penyalahgunaan data, serta kerangka hukum dan regulasi data science di Indonesia.

E. Learning Stage/Tahap Pembelajaran

We ek	Final Ability	Material	Methods	Dura tion	Indicators	Assesment
1	<i>Have broad knowledge of ethics and law in data science.</i> Memiliki pengetahuan luas tentang etika dan hukum dalam data science.	Introduction to Ethics & Law in Data Science	Presentation Discussion Demonstration Practicum	100'	Provides information about ethics and law in data science; Discussion	Discussion
2	<i>Master data privacy and protection principles and frameworks.</i> Menguasai prinsip dan kerangka kerja privasi dan perlindungan data.	Data Privacy & Protection: Principles & Frameworks	Presentation Discussion Demonstration Practicum	100'	Obtain information about data privacy and protection; Discussion and Practicum	Discussion
3	<i>Master data protection law: Indonesia's Personal Data Protection Law (UU PDP) and GDPR.</i> Menguasai hukum perlindungan data: UU Pelindungan Data Pribadi (UU PDP) Indonesia dan GDPR.	Data Protection Law: UU PDP (Indonesia) & GDPR	Presentation Discussion Demonstration Practicum	100'	Obtain information about data protection law; Discussion and Practicum	Task: Submit a case discussion report.
4	<i>Master case discussion related to ethics, privacy, and data protection law.</i> Menguasai diskusi kasus terkait etika, privasi, dan hukum perlindungan data.	Practicum/Case Discussion related to Meeting 1-3	Presentation Discussion Demonstration Practicum	100'	Carrying out case discussion related to Meeting 1 to Meeting 3	Practical Assignment /Report - CPMK1 (25%)
5	<i>Master informed consent and data ownership principles.</i>	Informed Consent & Data Ownership	Presentation Discussion Demonstration Practicum	100'	Obtain information about informed consent and data	Discussion

	Menguasai prinsip informed consent dan kepemilikan data.				ownership; Discussion and Practicum	
6	<i>Master intellectual property rights in data and AI.</i> Menguasai hak kekayaan intelektual dalam data dan AI.	Intellectual Property Rights in Data & AI	Presentation Discussion Demonstration Practicum	100'	Obtain information about IP rights in data and AI; Discussion and Practicum	Discussion
7	<i>Master algorithmic bias and fairness concepts.</i> Menguasai konsep algorithmic bias dan fairness.	Algorithmic Bias & Fairness	Presentation Discussion Demonstration Practicum	100'	Obtain information about algorithmic bias and fairness; Discussion and Practicum	Task: Submit a case discussion report.
8	<i>Master case discussion related to data ownership, IP rights, and algorithmic bias.</i> Menguasai diskusi kasus terkait kepemilikan data, hak kekayaan intelektual, dan algorithmic bias.	Practicum/Case Discussion related to Meeting 5-7	Presentation Discussion Demonstration Practicum	100'	Carrying out case discussion related to Meeting 5 to Meeting 7	Practical Assignment /Report - CPMK1 (25%)
9	<i>Master AI ethics and responsible AI principles.</i> Menguasai etika AI dan prinsip responsible AI.	AI Ethics & Responsible AI Principles	Presentation Discussion Demonstration Practicum	100'	Obtain information about AI ethics and responsible AI; Discussion and Practicum	Discussion
10	<i>Master accountability and transparency in data-driven systems.</i> Menguasai akuntabilitas dan transparansi dalam sistem berbasis data.	Accountability & Transparency in Data-Driven Systems	Presentation Discussion Demonstration Practicum	100'	Obtain information about accountability and transparency; Discussion and Practicum	Discussion
11	<i>Master professional codes of conduct (ACM/IEEE Code of Ethics).</i> Menguasai kode etik profesi (ACM/IEEE Code of Ethics).	Professional Codes of Conduct (ACM/IEEE Code of Ethics)	Presentation Discussion Demonstration Practicum	100'	Obtain information about professional codes of conduct; Discussion and Practicum	Task: Submit a case discussion report.
12	<i>Master case discussion related to AI ethics, accountability, and professional codes of conduct.</i> Menguasai diskusi kasus terkait etika AI, akuntabilitas, dan kode etik profesi.	Practicum/Case Discussion related to Meeting 9-11	Presentation Discussion Demonstration Practicum	100'	Carrying out case discussion related to Meeting 9 to Meeting 11	Discussion
13	<i>Master case studies of data misuse and ethical failures.</i> Menguasai studi kasus penyalahgunaan data dan kegagalan etika.	Case Studies: Data Misuse & Ethical Failures	Presentation Discussion Demonstration Practicum	100'	Obtain information about data misuse and ethical failure case studies; Discussion and Practicum	Discussion

14	<i>Master legal and regulatory frameworks for data science in Indonesia.</i> Menguasai kerangka hukum dan regulasi data science di Indonesia.	Legal & Regulatory Frameworks for Data Science in Indonesia	Presentation Discussion Demonstration Practicum	100'	Obtain information about legal and regulatory frameworks in Indonesia; Discussion and Practicum	Discussion
15	<i>Able to analyze an applied ethics and law case in data science.</i> Mampu menganalisis kasus etika dan hukum data science secara terapan.	PROJECT WORK: Ethics & Law Case Analysis	Project Work	100'	Analyze and design a case study on ethics and law in data science	Final Project Work
16	<i>Able to present and defend the ethics and law case analysis.</i> Mampu mempresentasikan dan mempertanggungjawabkan analisis kasus etika dan hukum.	PROJECT PRESENTATION	Presentation Discussion	100'	Presenting the ethics and law case analysis	Project Presentation - CPMK2 (50%)

Note/Catatan untuk Tabel E.

Abbreviation	Description
CPL	Capaian Pembelajaran Lulusan / Program Learning Outcome
CPMK	Capaian Pembelajaran Mata Kuliah / Course Learning Outcome
UU PDP	Undang-Undang Pelindungan Data Pribadi
GDPR	General Data Protection Regulation
ACM	Association for Computing Machinery
IEEE	Institute of Electrical and Electronics Engineers

F. Learning Media and Tools

Studi kasus & artikel jurnal, teks peraturan perundang-undangan, Computer, Flearn (Online Learning Media), WAG and Google Meet/Zoom.

G. Student Learning Experience/Portfolio

Students gain experience in analyzing real-world ethical and legal issues in data science, applying data protection law, and evaluating algorithmic fairness and accountability.

Mahasiswa memperoleh pengalaman dalam menganalisis isu etika dan hukum data science di dunia nyata, menerapkan hukum perlindungan data, serta mengevaluasi fairness dan akuntabilitas algoritma.

H. References

1. [Association for Computing Machinery \(ACM\). Code of Ethics and Professional Conduct.](#)

2. [Republik Indonesia. Undang-Undang Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi \(UU PDP\).](#)
3. [Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. \(2016\). The Ethics of Algorithms: Mapping the Debate. Big Data & Society, 3\(2\).](#)

I. Authorization

Pengembang	Tanggal	Koordinator	Kaprodi
Dr. Suryasatriya Trihandaru, M.Sc.nat	8 Agustus 2026	Prof. Hanna Arini Parhusip, M.Sc.nat	Prof. Hanna Arini Parhusip, M.Sc.nat