

RENCANA PEMBELAJARAN SEMESTER

PROGRAM STUDI S2 SAINS DATA

FAKULTAS SAINS DAN MATEMATIKA Universitas Kristen Satya Wacana

Form						
Semester	Ganjil / Genap / Antara					
Mata Kuliah	BD040 HUMAN CAPITAL DECISION INTELLIGENCE					
Beban	2	SKS	T/A/P:	1/1/0	W/P:	Pilihan
Dosen Pengampu	1. Prof. Hanna Arini Parhusip, M.Sc.nat 2. Prof. Didit Budi Nugroho, S.Si., M.Si., D.Sc. 3. Prof. Dr. Adi Setiawan, M.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)

CPMKBD04011	(CPL01) Mampu menunjukkan tanggung jawab dalam perencanaan dan penyelesaian proyek berbasis data secara mandiri.
CPMKBD04052	(CPL05) Mampu mengimplementasikan sistem human capital decision intelligence sesuai spesifikasi analisis dan kebutuhan pengambilan keputusan.
CPMKBD04073	(CPL07) Mampu bekerja dalam tim dan menunjukkan kemampuan kepemimpinan dasar dalam pengambilan keputusan berbasis data sumber daya manusia.

C. Prerequisite/Corequisite Courses /Prasyarat Mata Kuliah

Code	Course Name

D. Description/Deskripsi

This course introduces human capital (HR) analytics for data-driven decision making, covering: talent acquisition analytics, employee attrition/turnover prediction, performance management analytics, compensation and benefits analysis, workforce planning, employee engagement and sentiment analysis, diversity/equity/inclusion (DEI) analytics, HR decision support systems and dashboards, ethical considerations in people analytics, and the implementation of human capital decision intelligence systems.

Mata kuliah ini membahas human capital (HR) analytics untuk pengambilan keputusan berbasis data, meliputi: talent acquisition analytics, prediksi attrition/turnover karyawan, performance management analytics, analisis kompensasi dan benefit, workforce planning, employee engagement dan sentiment analysis, diversity/equity/inclusion (DEI) analytics, HR decision support system dan dashboard, pertimbangan etika dalam people analytics, serta implementasi sistem human capital decision intelligence.

E. Learning Stage/Tahap Pembelajaran

We ek	Final Ability	Material	Methods	Dura tion	Indicators	Assesment
1	<i>Have broad knowledge of human capital analytics and HR data.</i> Memiliki pengetahuan luas tentang human capital analytics dan data SDM.	Introduction to Human Capital Analytics & HR Data	Presentation Discussion Demonstration Practicum	100'	Provides information about human capital analytics and HR data; Discussion	Discussion
2	<i>Master talent acquisition analytics: recruitment funnel and sourcing.</i> Menguasai talent acquisition analytics: recruitment funnel dan sourcing.	Talent Acquisition Analytics: Recruitment Funnel & Sourcing	Presentation Discussion Demonstration Practicum	100'	Obtain information about talent acquisition analytics; Discussion and Practicum	Discussion
3	<i>Master employee attrition/turnover prediction models.</i> Menguasai model prediksi attrition/turnover karyawan.	Employee Attrition/Turnover Prediction Models	Presentation Discussion Demonstration Practicum	100'	Obtain information about attrition prediction models; Discussion and Practicum	Task: Submit a practicum report.
4	<i>Master practical work related to talent acquisition and attrition prediction.</i> Menguasai praktikum terkait talent acquisition dan prediksi attrition.	Practicum/Case Study related to Meeting 1-3	Presentation Discussion Demonstration Practicum	100'	Carrying out practicum and tutorials related to Meeting 1 to Meeting 3	Practical Assignment /Report - CPMK1 (15%)
5	<i>Master performance management analytics.</i>	Performance Management Analytics	Presentation Discussion Demonstration	100'	Obtain information about performance	Discussion

	Menguasai performance management analytics.		Practicum		management analytics; Discussion and Practicum	
6	<i>Master compensation and benefits analysis.</i> Menguasai analisis kompensasi dan benefit.	Compensation & Benefits Analysis	Presentation Discussion Demonstration Practicum	100'	Obtain information about compensation and benefits analysis; Discussion and Practicum	Discussion
7	<i>Master workforce planning and forecasting.</i> Menguasai workforce planning dan forecasting.	Workforce Planning & Forecasting	Presentation Discussion Demonstration Practicum	100'	Obtain information about workforce planning and forecasting; Discussion and Practicum	Task: Submit a practicum report.
8	<i>Master practical work related to performance management, compensation analysis, and workforce planning.</i> Menguasai praktikum terkait performance management, analisis kompensasi, dan workforce planning.	Practicum/Case Study related to Meeting 5-7	Presentation Discussion Demonstration Practicum	100'	Carrying out practicum and tutorials related to Meeting 5 to Meeting 7	Practical Assignment /Report - CPMK1 (15%)
9	<i>Master employee engagement and sentiment analysis.</i> Menguasai employee engagement dan sentiment analysis.	Employee Engagement & Sentiment Analysis	Presentation Discussion Demonstration Practicum	100'	Obtain information about employee engagement and sentiment analysis; Discussion and Practicum	Discussion
10	<i>Master Diversity, Equity & Inclusion (DEI) analytics.</i> Menguasai Diversity, Equity & Inclusion (DEI) analytics.	Diversity, Equity & Inclusion (DEI) Analytics	Presentation Discussion Demonstration Practicum	100'	Obtain information about DEI analytics; Discussion and Practicum	Discussion
11	<i>Master HR decision support systems and dashboards.</i> Menguasai HR decision support system dan dashboard.	HR Decision Support Systems & Dashboards	Presentation Discussion Demonstration Practicum	100'	Obtain information about HR decision support systems and dashboards; Discussion and Practicum	Task: Submit a practicum report.
12	<i>Master practical work related to employee engagement, DEI analytics, and HR dashboards.</i> Menguasai praktikum terkait employee engagement, DEI analytics, dan dashboard HR.	Practicum/Case Study related to Meeting 9-11	Presentation Discussion Demonstration Practicum	100'	Carrying out practicum and tutorials related to Meeting 9 to Meeting 11	Practical Assignment /Report - CPMK2 (30%)
13	<i>Master ethical considerations in people analytics.</i>	Ethical Considerations in People Analytics	Presentation Discussion Demonstration Practicum	100'	Obtain information about ethics in people analytics;	Discussion

	Menguasai pertimbangan etika dalam people analytics.				Discussion and Practicum	
14	<i>Master the implementation of human capital decision intelligence systems.</i> Menguasai implementasi sistem human capital decision intelligence.	Implementation of Human Capital Decision Intelligence Systems	Presentation Discussion Demonstration Practicum	100'	Obtain information about implementing HCDI systems; Discussion and Practicum	Discussion
15	<i>Able to work in a team to design and build an applied human capital decision intelligence project.</i> Mampu bekerja dalam tim untuk merancang dan membangun proyek human capital decision intelligence secara terapan.	PROJECT WORK	Project Work	100'	Design and build a human capital decision intelligence project as a team	Final Project Work
16	<i>Able to demonstrate teamwork and leadership in presenting the human capital decision intelligence project.</i> Mampu menunjukkan kerja tim dan kepemimpinan dalam mempresentasikan proyek human capital decision intelligence.	PROJECT PRESENTATION	Presentation Discussion	100'	Presenting the human capital decision intelligence project as a team	Project Presentation - CPMK3 (40%)

Note/Catatan untuk Tabel E.

Abbreviation	Description
CPL	Capaian Pembelajaran Lulusan / Program Learning Outcome
CPMK	Capaian Pembelajaran Mata Kuliah / Course Learning Outcome
HR	Human Resources
DEI	Diversity, Equity & Inclusion

F. Learning Media and Tools

Python/R (statistik & machine learning untuk HR), Ms. Excel/Power BI (dashboard HR), Computer, Flearn (Online Learning Media), WAG and Google Meet/Zoom.

G. Student Learning Experience/Portfolio

Students gain experience in analyzing HR data, building predictive models for talent and workforce decisions, and collaborating in a team to design an HR decision support system.

Mahasiswa memperoleh pengalaman dalam menganalisis data SDM, membangun model prediktif untuk keputusan talent dan workforce, serta berkolaborasi dalam tim untuk merancang HR decision support system.



H. References

1. [Fitz-enz, J., & Mattox, J. R. \(2014\). Predictive Analytics for Human Resources. Wiley.](#)
2. [Provost, F., & Fawcett, T. \(2013\). Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking. O'Reilly Media.](#)

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

