



MODULE HANDBOOK MEDICAL INFORMATION MANAGEMENT







**BACHELOR DEGREE PROGRAM
DEPARTMENT OF BIOMEDICAL ENGINEERING
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS
TECHNOLOGY**

INSTITUT TEKNOLOGI SEPULUH NOPEMBER

ENDORSEMENT PAGE



MODULE HANDBOOK
Medical Information Management
DEPARTMENT OF BIOMEDICAL ENGINEERING
INSTITUT TEKNOLOGI SEPULUH NOPEMBER
Number : B/21389/IT2.IX.5.1.2/PP.03.00.00/2020

Proses Process	Penanggung Jawab Person in Charge			Tanggal Date
	Nama Name	Jabatan Position	Tandatangan Signature	
Perumus Preparation	Atar Babgei, S.T., M.Sc.	Dosen Lecturer		November 23, 2019
Pemeriksa dan Pengendalian Review and Control	Dr. Tri Arief Sardjono, S.T., M.T.	Tim kurikulum Curriculum team		February 14, 2020
Persetujuan Approval	Ir. Josaphat Pramudijanto, M.Eng.	Koordinator RMK Course Cluster Coordinator		March 06, 2020
Penetapan Determination	Dr. Achmad Arifin, S.T., M.Eng.	Kepala Departemen Head of Department		March 13, 2020

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MODULE HANDBOOK

MEDICAL INFORMATION MANAGEMENT

Module name	Medical Information Management	
Module level	Undergraduate	
Code	EB184910	
Course (if applicable)	Medical Information Management	
Semester	Specialization	
Person responsible for the module	Atar Babgei, S.T., M.Sc.	
Lecturer	Muhammad Yazid, B.Eng., M.Eng.	
Language	Bahasa Indonesia and English	
Relation to curriculum	Undergraduate degree program, specialization .	
Type of teaching, contact hours	Lectures, <60 students	
Workload	1. Lectures : 3 x 50 = 150 minutes per week. 2. Exercises and Assignments : 3 x 50 = 150 minutes per week. 3. Private learning : 3 x 50 = 150 minutes per week.	
Credit points	3 credit points (sks)	
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.	
Mandatory prerequisites	-	
Learning outcomes and their corresponding PLOs	Course Learning Outcome (CLO) after completing this module, CLO 1: Students understand and able to explain the basic concepts of medical information management. CLO 2: Students understand and able to explain the classification and representation of medical data. CLO 3: Students understand and able to explain the basic concepts of numbering systems and medical data storage and its application. CLO 4: Students know, understand and able to explain legal aspects and the latest development of medical information management.	PLO-02 PLO-02 PLO-06 PLO-09

Content	Medical Information Management course aims to provide an understanding of basic concepts of information management and its application in the medical field, classification and representation of medical data, medical archiving, ethics and law as well as the latest developments in the medical information management system. Students are expected to be able to implement this knowledge in developing information management in the medical field.
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> • In-class exercises • Assignment 1, 2, 3, 4, 5, 6, 7 • Presentation • Mid-term examination • Final examination
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading list	<p>Main :</p> <ol style="list-style-type: none"> 1. Joseph Tan, "Adaptive Health Management Information Systems : Concepts, Cases, & Practical Applications", Jones & Bartlett Publishers, 2010 2. Pradeep Sinha, Gaur Sunder, Prashant Bendale, Manisha Mantri, Atreya Dande, "Electronic Health Record : Standards, Coding Systems, Frameworks, and Infrastructures", John Wiley & Sons, 2012 3. Davis, Gordon B. dan Margarethe H. Olson, "Management Information System: Conceptual Foundations, Structure and Development, Second edition", Tokyo, McGraw-Hill Kogakusha, 1984 4. M. Beth Shanholtzer and Gary Ozanich, "Health Information Management and Technology, 1st Edition", McGraw-Hill, 2016 5. Terese Claeys, "Medical Filing", Cengage Learning, 1996

I. Rencana Pembelajaran Semester / Semester Learning Plan

		INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS) FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY DEPARTMENT OF BIOMEDICAL ENGINEERING				Document Code
		SEMESTER LEARNING PLAN				
MATA KULIAH (MK) <i>COURSE</i>	KODE <i>CODE</i>	Rumpun MK <i>Course Cluster</i>	BOBOT (sks) <i>Credits</i>		SEMESTER	Tgl Penyusunan <i>Compilation Date</i>
Manajemen Informasi Medika <i>Medical Information Management</i>	EB184910	Biocybernetics	T=3	P=0	Peminatan <i>Specialization</i>	Oct 24, 2020
OTORISASI / PENGESAHAN <i>AUTHORIZATION / ENDORSEMENT</i>	Dosen Pengembang RPS <i>Developer Lecturer of Semester Learning Plan</i>		Koordinator RMK <i>Course Cluster Coordinator</i>		Ka DEPARTEMEN <i>Head of Department</i>	
	(Atar Babgei, S.T., M.Sc.)		(Ir. Josaphat Pramudijanto, M.Eng.)		(Dr. Achmad Arifin, S.T., M.Eng.)	
Capaian Pembelajaran	CPL-PRODI yang dibebankan pada MK <i>PLO Program Charged to The Course</i>					
Learning Outcomes	CPL-02 PLO-02	Mampu menemukan, memahami, menjelaskan, merumuskan, dan menyelesaikan permasalahan umum pada bidang Teknik dan permasalahan khusus pada bidang Teknik Biomedika yang meliputi instrumentasi biomedika cerdas, teknik rehabilitasi medika, pencitraan dan pengolahan citra medika, serta informatika medika. <i>Able to find, understand, explain, formulate, and solve general problems in the field of Engineering and special problems in the field of Biomedical Engineering which includes intelligent biomedical instrumentation, medical rehabilitation techniques, imaging and processing of medical images, and medical informatics.</i>				
	CPL-06 PLO-06	Mampu menerapkan ilmu pengetahuan, keterampilan, dan metode terkini dalam menyelesaikan permasalahan di bidang Teknik Biomedika. <i>Able to apply the latest knowledge, skills and methods in solving problems in the field of Biomedical Engineering.</i>				

CPL-09 PLO-09		Mampu mengetahui/mengikuti perkembangan terkini dibidang ilmu pengetahuan dan teknologi serta menyikapinya secara obyektif dengan mengedepankan nilai-nilai kebenaran universal. Able to know / follow the latest developments in the field of science and technology and to react objectively by promoting the values of universal truth
Capaian Pembelajaran Mata Kuliah (CPMK) Course Learning Outcome (CLO) - If CLO as description capability of each Learning Stage in the course, then CLO = LLO		
CP MK 1 CLO 1		Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar manajemen informasi medika. <i>Students understand and able to explain the basic concepts of medical information management.</i>
CP MK 2 CLO 2		Mahasiswa memahami dan mampu menjelaskan tentang klasifikasi dan representasi data medis. <i>Students understand and able to explain the classification and representation of medical data.</i>
CP MK 3 CLO 3		Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar sistem penomoran dan penyimpanan data medis serta penerapannya. <i>Students understand and able to explain the basic concepts of numbering systems and medical data storage and its application.</i>
CP MK 4 CLO 4		Mahasiswa mengetahui, memahami dan mampu menjelaskan tentang aspek hukum dan perkembangan terkini dari manajemen informasi medika. <i>Students know, understand and able to explain legal aspects and the latest development of medical information management.</i>

<p>Peta CPL – CP MK</p> <p><i>Map of PLO - CLO</i></p>	<table border="1"> <thead> <tr> <th></th> <th>CPL-01</th> <th>CPL-02</th> <th>CPL-03</th> <th>CPL-04</th> <th>CPL-05</th> <th>CPL-06</th> <th>CPL-07</th> <th>CPL-08</th> <th>CPL-09</th> <th>CPL-10</th> <th>CPL-11</th> <th>CPL-12</th> </tr> </thead> <tbody> <tr> <td>CPMK 1 / SUB CPMK 1 <i>CLO 1 / LLO 1</i></td> <td></td> <td>√</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CPMK 2 / SUB CPMK 2 <i>CLO 2 / LLO 2</i></td> <td></td> <td>√</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CPMK 3 / SUB CPMK 3 <i>CLO 3 / LLO 3</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>√</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CPMK 4 / SUB CPMK 4 <i>CLO 4 / LLO 4</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>√</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		CPL-01	CPL-02	CPL-03	CPL-04	CPL-05	CPL-06	CPL-07	CPL-08	CPL-09	CPL-10	CPL-11	CPL-12	CPMK 1 / SUB CPMK 1 <i>CLO 1 / LLO 1</i>		√											CPMK 2 / SUB CPMK 2 <i>CLO 2 / LLO 2</i>		√											CPMK 3 / SUB CPMK 3 <i>CLO 3 / LLO 3</i>						√							CPMK 4 / SUB CPMK 4 <i>CLO 4 / LLO 4</i>									√			
	CPL-01	CPL-02	CPL-03	CPL-04	CPL-05	CPL-06	CPL-07	CPL-08	CPL-09	CPL-10	CPL-11	CPL-12																																																						
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CPMK 4 / SUB CPMK 4 <i>CLO 4 / LLO 4</i>									√																																																									
<p>Diskripsi Singkat MK</p> <p><i>Short Description of Course</i></p>	<p>Mata kuliah Manajemen Informasi Medika bertujuan untuk memberikan pemahaman tentang konsep dasar manajemen informasi dan penerapannya dalam dunia medis, klasifikasi dan representasi data medis, pengarsipan medis, etika dan hukum serta perkembangan terkini dari sistem manajemen informasi medika. Mahasiswa diharapkan mampu mengimplementasikan pengetahuan tersebut dalam pengembangan manajemen informasi dalam dunia medis.</p> <p><i>Medical Information Management course aims to provide an understanding of basic concepts of information management and its application in the medical field, classification and representation of medical data, medical archiving, ethics and law as well as the latest developments in the medical information management system. Students are expected to be able to implement this knowledge in developing information management in the medical field.</i></p>																																																																	
<p>Bahan Kajian: Materi pembelajaran</p> <p><i>Course Materials:</i></p>	<ol style="list-style-type: none"> 1. Konsep <i>Health Management Information System (HMIS) / Health Management Information System (HMIS) Concepts</i> 2. Klasifikasi data rawat inap, rawat jalan, manajemen riwayat kesehatan dan rujukan dari dokter / <i>Data classification of inpatient, outpatient, medical history management and referrals from doctors</i> 3. Sistem penomoran dan penyimpanan data / <i>Numbering and data storage system</i> 4. Aspek hukum dari <i>Health Management Information System / Legal aspects of Health Management Information System</i> 																																																																	

Pustaka <i>References</i>	Utama / Main:						
	<ol style="list-style-type: none"> 1. Joseph Tan, "Adaptive Health Management Information Systems : Concepts, Cases, & Practical Applications", Jones & Bartlett Publishers, 2010 2. Pradeep Sinha, Gaur Sunder, Prashant Bendale, Manisha Mantri, Atreya Dande, "Electronic Health Record : Standards, Coding Systems, Frameworks, and Infrastructures", John Wiley & Sons, 2012 3. Davis, Gordon B. dan Margarethe H. Olson, "Management Information System: Conceptual Foundations, Structure and Development, Second edition", Tokyo, McGraw-Hill Kogakusha, 1984 4. M. Beth Shanholtzer and Gary Ozanich, "Health Information Management and Technology, 1st Edition", McGraw-Hill, 2016 5. Terese Claeys, "Medical Filing", Cengage Learning, 1996 						
	Pendukung / Supporting:						
Dosen Pengampu <i>Lecturers</i>	Muhammad Yazid						
Matakuliah syarat <i>Prerequisite</i>	-						
Mg ke/ Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) / Final ability of each learning stage (LLO)	Penilaian / Assessment		Bantuk Pembelajaran; Metode Pembelajaran; Penugasan Mahasiswa; [Estimasi Waktu] / Form of Learning; Learning Method; Student Assignment; [Estimated Time]	Materi Pembelajaran [Pustaka] / Learning Material [Reference]	Bobot Penilaian /Assessment Load (%)	
		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques				
(1)	(2)	(3)	(4)	Tatap Muka / In-class (5)	Daring / Online (6)	(7)	(8)

<p>1 – 4</p>	<p>Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar manajemen informasi medika.</p> <p><i>Students understand and able to explain the basic concepts of medical information management.</i></p>	<ul style="list-style-type: none"> • Mampu menjelaskan HMIS, <i>Health information exchange</i>, dan konsep sistem dan informasi. • <i>Able to explain HMIS, Health information exchange and system and information concepts.</i> 	<p>Non-tes :</p> <p>Tugas 1: Tugas mengenai konsep dasar MHIS. (Tugas Tertulis)</p> <p>Tugas 2: Mengenai aplikasi aplikasi GIS dalam HMIS. (Tugas Tertulis)</p> <p>Non-test :</p> <p>Task 1: <i>About the basic concepts of MHIS. (Written Assignments)</i></p> <p>Task 2: <i>About the GIS application in HMIS. (Written Assignments)</i></p>	<ul style="list-style-type: none"> • Kuliah dan diskusi. [TM : 4 x 3 x 50"] [BM : 4 x 3 x 50"] [PT : 4 x 3 x 50"] • <i>Lecturers and Discussions.</i> [FF : 4 x 3 x 50"] [SA : 4 x 3 x 50"] [SS : 4 x 3 x 50"] 	<ul style="list-style-type: none"> • Belajar mandiri melalui Share ITS dan myITSClassroom. • <i>Self learning through Share ITS and myITSClassroom.</i> 	<ul style="list-style-type: none"> • <i>Health Management Information System (HMIS):</i> pengenalan tentang definisi, sejarah dan evolusi HMIS, manfaat, fungsi dan komponen dasar HMIS (komponen data, informasi, pengetahuan; komponen hardware, software, network; komponen proses, task, system; komponen integration, interoperability; komponen user, administration, management; serta hubungan tiap komponenn) • <i>Health information exchange</i> • Konsep sistem dan informasi: (pengertian sistem, 	<p>Tugas 1 / Task 1: 5%</p> <p>Tugas 2 / Task 2: 5%</p>
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						<p> karakteristik sistem, jenis-jenis sistem, model sistem, konsep fakta, data dan informasi, karakteristik kualitas informasi, komponen sistem informasi </p> <ul style="list-style-type: none"> • Pengenalan <i>Geographical Information System (GIS)</i> dalam HMIS : komponen GIS, data spasial, sumber data, manajemen data dan contoh aplikasi <p> [Link materi di MyITSClassroom] </p> <ul style="list-style-type: none"> • <i>Health Management Information System (HMIS): introduction to the definition, history and evolution of HMIS, benefits,</i> 	
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						<p><i>functions and basic components of HMIS (data components, information, knowledge; hardware, software, network components; process components, tasks, systems; integration, interoperability components ; user, administration, management components; and the relationship of each component)</i></p> <ul style="list-style-type: none"> • <i>Health information exchange</i> • <i>Systems and information concepts: (understanding systems, system characteristics, types of systems, system models, concepts of facts,</i> 	
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						<p><i>data and information, information quality characteristics, information system components</i></p> <ul style="list-style-type: none"> • <i>Introduction to Geographical Information System (GIS) in HMIS: GIS components, spatial data, data sources, data management and application examples</i> 	
5 – 7	<p>Mahasiswa memahami dan mampu menjelaskan tentang klasifikasi dan representasi data medis.</p> <p><i>Students understand and able to explain the classification and representation of medical data.</i></p>	<ul style="list-style-type: none"> • Mampu mengklasifikasikan dan merepresentasikan data medis. • Mampu merancang aplikasi rekam medis. • <i>Able to classify and represent medical data.</i> 	<p>Non-tes :</p> <p>Tugas 3: Klasifikasi dan representasi data medis (Tugas Tertulis).</p> <p>Tugas 4: Tugas perancangan aplikasi rekam medis (Tugas Tertulis)</p> <p>Non-test : Task 3:</p>	<ul style="list-style-type: none"> • Kuliah dan diskusi. [TM : 3 x 3 x 50"] [BM : 3 x 3 x 50"] [PT : 3 x 3 x 50"] • <i>Lecturers and Discussions.</i> [FF : 3 x 3 x 50"] 		<ul style="list-style-type: none"> • Klasifikasi dan representasi data medis: pengenalan tentang data medis, representasi data dan informasi, rekam medis (metode pengambilan dan pengumpulan data) • Standar klasifikasi WHO (penyakit, intervensi) 	<p>Tugas 3 / Task 3: 5%</p> <p>Tugas 4 / Task 4: 15%</p>

		<ul style="list-style-type: none"> • <i>Able to design medical record applications.</i> 	<p><i>Medical data classification and representation. (Written Assignments)</i></p> <p>Task 4: <i>Designing a medical record application. (Written Assignments)</i></p>	<p><i>[SA : 3 x 3 x 50"]</i> <i>[SS : 3 x 3 x 50"]</i></p>		<p>kesehatan, disabilitas)</p> <ul style="list-style-type: none"> • <i>Klasifikasi data rawat inap, rawat jalan, manajemen riwayat kesehatan dan rujukan dari dokter</i> • <i>Teknik perancangan aplikasi rekam medis</i> • <i>Medical data classification and representation: introduction to medical data, data and information representation, medical records (data collection and collection methods)</i> • <i>WHO classification standards (disease, health interventions, disabilities)</i> • <i>Inpatient, outpatient data classification, medical history</i> 	
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						<i>management and doctor referrals</i> <ul style="list-style-type: none"> • <i>Medical record application design techniques</i> 	
8	EVALUASI TENGAH SEMESTER MID-SEMESTER EXAM						20
9 – 12	<p>Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar sistem penomoran dan penyimpanan data medis serta penerapannya.</p> <p><i>Students understand and able to explain the basic concepts of numbering systems and medical data storage and its application.</i></p>	<ul style="list-style-type: none"> • Mampu menerapkan sistem penomoran dan penyimpanan data medis. • <i>Able to implement a medical data numbering and storage system.</i> 	<p>Non-tes : Tugas 5: konsep dasar sistem penomoran dan penyimpanan data medis serta penerapannya (Tugas Tertulis)</p> <p>Tugas 6: Tugas mengenai standar koding, klasifikasi dan terminologi medis pada rekam medis (Tugas Tertulis)</p> <p>Non-test : Task 5: <i>Basic concepts of medical data storage</i></p>	<ul style="list-style-type: none"> • Kuliah dan diskusi. [TM : 4 x 3 x 50"] [BM : 4 x 3 x 50"] [PT : 4 x 3 x 50"] • <i>Lecturers and Discussions.</i> [FF : 4 x 3 x 50"] [SA : 4 x 3 x 50"] [SS : 4 x 3 x 50"] 		<ul style="list-style-type: none"> • Sistem penomoran dan penyimpanan data medis: pengenalan tentang pengarsipan medis (<i>medical filing</i>), pengenalan tentang berbagai macam standar data, penomoran (koding), klasifikasi dan terminologi medis, penggunaan standar koding, klasifikasi dan terminologi medis pada rekam medis, instrument atau tool untuk identifikasi koding serta pemanfaatan untuk pengembangan 	<p>Tugas 5 / Task 5: 5%</p> <p>Tugas 6 / Task 6: 5%</p>


			<p><i>and numbering system and its application. (Written Assignments)</i></p> <p>Task 6: <i>About coding standards, classification and medical terminology on medical records. (Written Assignments)</i></p>			<p>sistem informasi dan pelayanan kesehatan.</p> <ul style="list-style-type: none"> • <i>Medical numbering and storage system: introduction to medical filing , introduction to various kinds of data standards, numbering (coding), medical classification and terminology, use of coding standards, medical classification and terminology in medical records, instruments or tools for identification coding and utilization for the development of information systems and health services.</i> 	
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<p>13 – 15</p>	<p>Mahasiswa mengetahui, memahami dan mampu menjelaskan tentang aspek hukum dan perkembangan terkini dari manajemen informasi medika.</p> <p><i>Students know, understand and able to explain legal aspects and the latest development of medical information management.</i></p>	<ul style="list-style-type: none"> • Mampu menjelaskan aspek hukum dan perkembangan HMIS. • <i>Able to explain legal aspect and development of HMIS.</i> 	<p>Non tes: Tugas 7: Tugas mengenai aspek hokum dan perkembangan terkini dari HMIS (Tugas Tertulis) Presentasi: Penentuan tema presentasi diberikan pada minggu ke – 9. Proses presentasi dilakukan pada minggu ke – 14-15 (Tugas Presentasi)</p> <p>Non-test: Task 7: <i>About legal aspects and the latest developments of HMIS. (Written Assignments)</i></p> <p>Presentation: <i>Defining the theme of the presentation is given in week 9. The</i></p>	<ul style="list-style-type: none"> • Kuliah dan diskusi. [TM : 3 x 3 x 50"] [BM : 3 x 3 x 50"] [PT : 3 x 3 x 50"] • <i>Lecturers and Discussions.</i> [FF : 3 x 3 x 50"] [SA : 3 x 3 x 50"] [SS : 3 x 3 x 50"] 		<ul style="list-style-type: none"> • Aspek hukum dan perkembangan terkini dari HMIS: pengenalan tentang hukum kesehatan, kebijakan hukum (<i>legal policy</i>) dan fungsi regulasi serta interpretasinya, relevansi dan interaksi antara hukum dengan sistem informasi dan pelayanan kesehatan khususnya di Indonesia, penggunaan dan perkembangan terkini HMIS khususnya di Indonesia • <i>Legal aspects and current developments of HMIS: introduction to health law, legal policies and regulatory</i> 	<p>Tugas 7 / Task 7: 5%</p> <p>Presentasi / Presentation: 15%</p>
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			<i>presentation is carried out on week 14 – 15. (Presentation Task)</i>			<i>functions and their interpretations, relevance and interaction between law and information systems and health services, especially in Indonesia, usage and current developments of HMIS, especially in Indonesia.</i>	
16	EVALUASI AKHIR SEMESTER FINAL-SEMESTER EXAM						20

TM=Tatap Muka, **PT**=Penugasan Terstruktur, **BM**=Belajar Mandiri.
FF = Face to Face, **SA** = Structured Assignment, **SS** = Self Study.

II. Rencana Asesmen & Evaluasi (RAE) / *Assessment & Evaluation Plan*

	ASSESSMENT & EVALUATION PLAN BACHELOR DEGREE PROGRAM OF BIOMEDICAL ENGINEERING - FTEIC ITS Course : Medical Information Management		RA&E
			Write Doc Code
Kode/code: EB184910	Bobot sks/credits (T/P): 3/0	Rumpun MK: Biocybernetics Course Cluster: Biocybernetics	Smt: Peminatan <i>Specialization</i>
OTORISASI <i>AUTHORIZATION</i>	Penyusun RA & E <i>Compiler A&EP</i> Atar Babgei, S.T., M.Sc.	Koordinator RMK <i>Course Cluster Coordinator</i> Ir. Josaphat Pramudijanto, M.Eng.	Ka DEP <i>Head of DEP</i> Dr. Achmad Arifin, S.T., M.Eng.

Mg ke/ Week (1)	Sub CP-MK / <i>Lesson Learning Outcomes (LLO)</i> (2)	Bentuk Asesmen (Penilaian) <i>Form of Assessment</i> (3)	Bobot / <i>Load (%)</i> (4)
1 – 4	Sub CP-MK 1: Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar manajemen informasi medika. LLO 1: <i>Students understand and able to explain the basic concepts of medical information management.</i>	Non-tes : Tugas 1: Tugas mengenai konsep dasar MHIS. (Tugas Tertulis) Tugas 2: Mengenai aplikasi aplikasi GIS dalam HMIS. (Tugas Tertulis) Tes: ETS Soal 1 dan 2 (8% dari ETS 20%) Non-test : Task 1: <i>About the basic concepts of MHIS. (Written Assignments)</i> Task 2: <i>About the GIS application in HMIS. (Written Assignments)</i> Test: <i>Question 1 and 2 in Mid Exam (8% of Mid Exam 20%)</i>	Tugas 1 / <i>Task 1: 5%</i> Tugas 2 / <i>Task 2: 5%</i>
5 – 7	Sub CP-MK 2: Mahasiswa memahami dan mampu menjelaskan tentang klasifikasi	Non-tes : Tugas 3: Klasifikasi dan representasi data medis (Tugas Tertulis).	Tugas 3 / <i>Task 3: 5%</i>

Mg ke/ Week (1)	Sub CP-MK / Lesson Learning Outcomes (LLO) (2)	Bentuk Asesmen (Penilaian) Form of Assessment (3)	Bobot / Load (%) (4)
	<p>dan representasi data medis.</p> <p>LLO 2: <i>Students understand and able to explain the classification and representation of medical data.</i></p>	<p>Tugas 4: Tugas perancangan aplikasi rekam medis (Tugas Tertulis)</p> <p>Tes: ETS Soal 3, 4, dan 5 (12% dari ETS 30%) EAS Soal 1 (12% dari ETS 30%)</p> <p>Non-test : Task 3: <i>Medical data classification and representation. (Written Assignments)</i></p> <p>Task 4: <i>Designing a medical record application. (Written Assignments)</i></p> <p>Test: <i>Question 3, 4 and 5 in Mid Exam (12% of Mid Exam 20%) Question 1 in Final Exam (4% of Mid Exam 20%)</i></p>	Tugas 4 / Task 4: 15%
8	<p>Evaluasi Tengah Semester</p> <p>Mid Exam</p>	<p>Tes: Ujian Tulis/Ujian Daring</p> <p>Test: <i>Writing Exams / Online Exams</i></p>	20
9 – 12	<p>Sub CP-MK 3: Mahasiswa memahami dan mampu menjelaskan tentang konsep dasar sistem penomoran dan penyimpanan data medis serta penerapannya.</p> <p>LLO 3: <i>Students understand and able to explain the basic concepts of numbering systems and medical data storage and its application.</i></p>	<p>Non-tes : Tugas 5: konsep dasar sistem penomoran dan penyimpanan data medis serta penerapannya (Tugas Tertulis)</p> <p>Tugas 6: Tugas mengenai standar koding, klasifikasi dan terminologi medis pada rekam medis (Tugas Tertulis)</p> <p>Tes: EAS Soal 2 dan 3 (8% dari EAS 20%)</p> <p>Non-test : Task 5: <i>Basic concepts of medical data storage and numbering system and its application. (Written Assignments)</i></p> <p>Task 6:</p>	<p>Tugas 5 / Task 5: 5%</p> <p>Tugas 6 / Task 6: 5%</p>

Mg ke/ Week (1)	Sub CP-MK / Lesson Learning Outcomes (LLO) (2)	Bentuk Asesmen (Penilaian) Form of Assessment (3)	Bobot / Load (%) (4)
		<p><i>About coding standards, classification and medical terminology on medical records.</i> <i>(Written Assignments)</i></p> <p>Test: <i>Question 2 and 3 in Final Exam (8% of Final Exam 20%)</i></p>	
13–15	<p>Sub CP-MK 4: Mahasiswa mengetahui, memahami dan mampu menjelaskan tentang aspek hukum dan perkembangan terkini dari manajemen informasi medika.</p> <p>LLO 4: <i>Students know, understand and able to explain legal aspects and the latest development of medical information management.</i></p>	<p>Non tes: Tugas 7: Tugas mengenai aspek hukum dan perkembangan terkini dari HMIS (Tugas Tertulis)</p> <p>Presentasi: Penentuan tema presentasi diberikan pada minggu ke – 9. Proses presentasi dilakukan pada minggu ke – 14-15 (Tugas Presentasi)</p> <p>Tes: EAS Soal 4 dan 5 (8% dari EAS 20%)</p> <p>Non-test: Task 7: <i>About legal aspects and the latest developments of HMIS.</i> <i>(Written Assignments)</i></p> <p>Presentation: <i>Defining the theme of the presentation is given in week 9. The presentation is carried out on week 14 – 15.</i> <i>(Presentation Task)</i></p> <p>Test: <i>Question 4 and 5 in Final Exam (8% of Final Exam 20%)</i></p>	<p>Tugas 7 / Task 7: 5%</p> <p>Presentasi / Presentation: 15%</p>
16	<p>Evaluasi Akhir</p> <p>Final Exam</p>	<p>Tes: Ujian Tulis/Ujian Daring</p> <p>Test: <i>Writing Exams / Online Exams</i></p>	20
Total bobot penilaian Total assessment load			100%

Indikator Pencapaian CPL Pada MK / *Indicator of PLO achievement charged to the course*

CPL yang dibebankan pada MK / <i>PLO charged to the course</i>	CPMK / <i>Course Learning Outcome (CLO)</i>	Minggu ke / <i>Week</i>	Bentuk Asesmen / <i>Form of Assessment</i>	Bobot / <i>Load (%)</i>
CPL-02 / <i>PLO-02</i>	CPMK 1 / <i>CLO 1</i>	Week- 1-4	<i>Task 1 and Task 2</i>	10
		Week- 8	<i>Mid Exam Question 1 and 2</i>	8
	CPMK 2 / <i>CLO 2</i>	Week- 5-7	<i>Task 3 and Task 4</i>	20
		Week- 8	<i>Mid Exam Question 3, 4 and 5</i>	12
CPL-06 / <i>PLO-06</i>	CPMK 3 / <i>CLO 3</i>	Week- 16	<i>Final Exam Question 1</i>	4
		Week- 9-12	<i>Task 5 and Task 6</i>	10
		Week- 16	<i>Final Exam Question 2 and 3</i>	8
CPL-09 / <i>PLO-09</i>	CPMK 4 / <i>CLO 4</i>	Week- 13-15	<i>Task 7 and Presentation</i>	20
		Week- 16	<i>Final Exam Question 4 and 5</i>	8
				Σ = 100%

No	<i>Form of Assessment</i>	<i>PLO-01</i>	<i>PLO-02</i>	<i>PLO-03</i>	<i>PLO-04</i>	<i>PLO-05</i>	<i>PLO-06</i>	<i>PLO-07</i>	<i>PLO-08</i>	<i>PLO-09</i>	<i>PLO-10</i>	<i>PLO-11</i>	<i>PLO-12</i>	<i>Total</i>
1	<i>Task 1</i>		0.05											0.05
2	<i>Task 2</i>		0.05											0.05
3	<i>Task 3</i>		0.05											0.05
4	<i>Task 4</i>		0.15											0.15
5	<i>Task 5</i>						0.05							0.05
6	<i>Task 6</i>						0.05							0.05
7	<i>Task 7</i>									0.05				0.05
8	<i>Presentation</i>									0.15				0.15
9	<i>Mid Exam</i>		0.2											0.2
10	<i>Final Exam</i>		0.04				0.08			0.08				0.2

No	Form of Assessment	PLO-01	PLO-02	PLO-03	PLO-04	PLO-05	PLO-06	PLO-07	PLO-08	PLO-09	PLO-10	PLO-11	PLO-12	Total
	Total		0.54				0.18			0.28				1