



SEMESTER LEARNING PLAN

DEPARTMENT: URBAN AND REGIONAL PLANNING

FACULTY: CIVIL, PLANNING, AND EARTH

COURSES NAME	MATHEMATICS I
COURSES CODE	KM 184101
SEMESTER	II
CREDITS	2 SKS (3.2 ECTS)
LECTURER	

Course Methodology							

Program Learning Outcome (PLO)

Specific Knowledge	1.1	[C2] Mahasiswa mampu mengidentifikasi dan menjelaskan pondasi matematika yang meliputi murni, terapan dan dasar-dasar komputasi <i>[C2] Students are able to identify and explain foundations of mathematics that include pure, applied, and the basic of computing</i>
	1.2	[C3] Mahasiswa mampu menyelesaikan permasalahan sederhana dan praktis dengan mengaplikasikan pernyataan matematika dasar, metode dan komputasi <i>[C3] Students are able to solve simple and practical problems by applying basic mathematical statements, methods and computations</i>

Courses Learning Outcome (CLO)

Specific Knowledge	<ol style="list-style-type: none"> 1. Mahasiswa mampu menerapkan konsep-konsep dasar matematika yang terkait matriks dan determinan. Students are able to apply basic mathematical concepts related to matrices and determinants. 2. Mahasiswa mampu menerapkan persamaan atau pertidaksamaan serta grafik fungsi Persamaan Linear. Students are able to apply equalities or inequalities as well as graphs of Linear Equation functions. 3. Mahasiswa mampu mengaplikasikannya bentuk peubah kompleks dalam bentuk polar serta menarik akar-akar persamaannya. Students are able to apply complex variable forms in polar form and get the roots of the equation. 4. Mahasiswa mampu menentukan kekontinuan fungsi dan turunannya.
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	<p>Students are able to determine the continuity of functions and their derivatives.</p> <p>5. Mahasiswa mampu menerapkan integral melalui teorema fundamental kalkulus.</p> <p>Students are able to apply integrals through the fundamental theorem of calculus.</p>
Module	
1.	Matrik dan Determinan. / Matrix and Determinant
2.	Persamaan, pertidaksamaan, grafik fungsi parabola, lingkaran atau elips./ Equations, inequalities, graphs of functions of a parabola, circle or ellipse
3.	Bilangan kompleks dan bentuk polarnya./ Complex numbers and their polar coordinates.
4.	Kekontinuan fungsi dan turunanya. / Continuity of functions and their derivatives.
5.	Integral dan Theorema Fundamental Kalkulus. / Integral and Fundamental Theorems of Calculus.

MATHEMATICS I COURSE LEARNING PLAN
EVEN SEMESTER OF ACADEMIC YEAR 2021–2022

mgg/ Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) / <i>Final ability of each learning stage (LLO)</i>	Penilaian / <i>Assessment</i>		Bantuk Pembelajaran; Metode Pembelajaran; Penugasan Mahasiswa; [<i>Estimasi Waktu</i>] / <i>Form of Learning; Learning Method; Student Assignment; [Estimated Time]</i>		Materi Pembelajaran [Pustaka] / <i>Learning Material [Reference]</i>	Bobot Penilaian / <i>Assessment Load (%)</i>
		Indikator / <i>Indicator</i>	Kriteria & Teknik / <i>Criteria & Techniques</i>	Tatap Muka / <i>In-class (5)</i>	Daring / <i>Online (6)</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pengantar Kuliah Introduction of Learning	Motivasi belajar, menyampaikan RPS, aturan perkuliahan dan sistem penilaian macam Evaluasi dan Prosentase masing masing evaluasi, Buku Ajar / sumber pustaka Learning motivation, delivering learning plan, lectures rules and assessment systems such as evaluation and percentage of each evaluation, textbooks / library sources					
1	Mahasiswa mampu memahami pengertian sistem bilangan real, menyelesaikan suatu persamaan atau pertidaksamaan, Nilai Mutlak dan Persamaan Linear. Students are able to understand the real number system, solve an equation or inequality, Absolute Value and Linear Equation.	Ketepatan menyelesaikan persamaan atau pertidaksamaan dan mensketsa persamaan linear. <i>The precision of solving equations or inequalities and sketching out linear equations.</i>	Tugas 1 : Latihan soal tentang sistem bilangan, nilai mutlak, grafik persamaan dan garis, persamaan linear. <i>Task 1 : Exercises on the real number systems, absolute values, graphs of equations and lines, linearequations.</i>	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] <i>Tutorial activities, exercises and provide assignment .</i> [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynchronous di MyITS Classroom <i>Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITSClassroom.</i>	Sistem Bilangan Real, Persamaan atau pertidaksamaan, Nilai Mutlak dan mengaplikasikan persamaan linear. [1] Hal. 1 – 18 <i>The real number system, Equalities or inequalities, Absolute Value and apply Linear</i>	

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		Indikator / <i>Indicator</i>	Kriteria & Teknik / <i>Criteria & Techniques</i>	Tatap Muka / <i>In-class (5)</i>	Daring / <i>Online (6)</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Mahasiswa mampu menyelesaikan operasi peubah kompleks dan bentuk polar serta menarik akar-akar persamaan peubah kompleks. Students are able to complete the operation of complex variables and their polar shapes and draw the roots of complex variable equations.	Ketepatan menyelesaikan: operasi peubah kompleks dan bentuk polar serta menarik akar-akar persamaan peubah kompleks. Accuracy to solving: the operation of complex variables and their polar forms and get the roots of complex variable equations.	Tugas 2: Latihan soal tentang bilangan kompleks dan teorema De Moivre. <i>Task 2: Exercises on complex numbers and the De Moivre theorem</i>			<i>equations.</i> [1] pp. 1 – 18 Operasi peubah kompleks dan bentuk polar serta menarik akar-akar persamaan peubah kompleks [1] Hal. 19 – 30 <i>The operation of complex variables and their polar shapes and draw the roots of complex variable equations</i> [1] pp. 19 – 30	
	Mahasiswa mampu menyelesaikan Sistem persamaan liner dalam bentuk matriks dengan	Ketepatan menyatakan Sistem persamaan liner dalam bentuk matriks dan menyelesaikannya dengan	Tugas 3: Latihan Soal tentang matriks dan operasinya, operasi baris elementer,	Kuliah, latihan soal-soal serta memberikan soal tugas	Kuliah, latihan soal-soal serta memberikan soal tugas melalui	Ikhtisar Matriks , dan persamaan liner. [1] hal: 31 – 50	

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		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2	menggunakan OBE <i>Students are able to solve systems of linear equations in matrix form using ERO</i>	OBE. <i>Accuracy expresses a system of linear equations in matrix form and solves them by ERO</i>	sistem persamaan linear. <i>Task 3: Exercises about matrices and their operations, elementary row operations, systems of linear equations</i>	[TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] <i>Tutorial activities, exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]</i>	synchronous / asynchronous di MyITS Classroom. <i>Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.</i>	<i>Overview Matrix and linear equation</i> [1] pp. 31 – 50	
	Asistensi 1 / 1 st Assistance Latihan soal-soal [TM : 2 x 50"] <i>Practice- Exercises [FF : 2 x 50"]</i>						
3	Evaluasi 1 1st Evaluation	Kuis 1, Bahan: Bab 1 dan 2 Quiz 1, Materials: Chapter 1 and 2	Ketajaman menyelesaikan soal soal yang terkait dengan materi Bab 1 dan 2 Acuity in solving problems related to the material in Chapters 1 and 2	TES TERTULIS WRITTEN TEST	TES TERTULIS melalui MyITS Classroom WRITTEN TEST via MyITS Classroom		
	Mahasiswa mampu menentukan invers matriks dan menyelesaikan sistem persamaan linear dengan determinan. <i>Students are able to determine the inverse</i>	Ketepatan Memperoleh Invers matriks , menyelesaikan sistem persamaan linier dengan determinan <i>The accuracy of obtaining the inverse of the matrix, solving the system of linear</i>	Tugas 4: Latihan soal tentang Determinan, minor, kofaktor dan aturan Cramer. <i>Task 4: Exercises on determinants, minors, cofactors and</i>	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] <i>Tutorial activities,</i>	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynchronous di MyITS Classroom. <i>synchronous /</i>	Invers matriks dan determinan [1] hal: 52 – 68 <i>Inverse matrix</i>	

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		Indikator / <i>Indicator</i>	Kriteria & Teknik / <i>Criteria & Techniques</i>	Tatap Muka / <i>In-class (5)</i>	Daring / <i>Online (6)</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	of the matrix and solve systems of linear equations using determinants.	equations with the determinant	Cramer's rule.	exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	<i>asynchronous in MyITSClassroom.</i>	<i>and determinants. [1] pp: 52 – 68</i>	
4	Mahasiswa mampu menentukan nilai eigen dan vektor eigen. <i>Students are able to determine eigenvalues and eigenvectors.</i>	Ketepatan menemukan Nilai Eigen dan Vektor Eigen dari suatu matriks. <i>The accuracy of finding Eigenvalues and Eigenvectors of a matrix.</i>	Tugas 4: Latihan soal tentang nilai eigen dan vektor eigen <i>Task 4: Exercises on eigenvalues and eigenvectors</i>	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] <i>Tutorial activities, exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]</i>	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynchronous di MyITS Classroom. <i>Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITSClassroom.</i>	Nilai eigen atau vektoreigen. [1] hal: 52 – 68 <i>Eigenvalues and eigenvectors. [1] pp: 52 – 68</i>	
ASISTENSI KE 2 / 2nd Assistance Latihan soal-soal [TM : 2 x 50"] Practice- Exercises [FF : 2 x 50"]							
5	Evaluasi ke 2 2nd Evaluation	KUIS 2, Bahan: Bab 3 <i>QUIZ 2, The material is Chapter 3</i>	Ketajaman menyelesaikan soal yang terkait dengan materi Bab 3. Acuity in solving problems related to the	TES TERTULIS WRITTEN TEST	TES TERTULIS melalui MyITS Classroom <i>WRITTEN TEST via MyITS Classroom</i>		

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		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			material in Chapter 3.				
	Mahasiswa mampu menyelesaikan operasi pada fungsi dan mampu mensketsa grafik fungsi. Students are able to complete operations on functions and are able to sketch graph of functions.	Ketepatan menghitung operasi pada fungsi dan mampu mensketsa grafik fungsi. Precise calculating operations on functions and capable of sketching graph of functions.	Tugas 5: Latihan soal tentang definisi dan notasi fungsi, operasi pada fungsi dan sketsa grafik fungsi Task 5: Exercise on the definition and notation of functions, operations on functions and graph sketches of functions	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] Tutorial activities, exercises and provide assignment [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynconous di MyITS Classroom. Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.	Operasi pada fungsi dan sketsa grafik fungsi. [1] hal: 69 – 85 Function operations and graph of functions [1] pp: 69 – 85	
6	Mahasiswa mampu memahami Sifat-sifat grafik fungsi dan mencari fungsi Invers. Students are able to understand the properties of the function graph and look for the inverse function	Ketepatan menerapkan Sifat-sifat grafik fungsi dan memperoleh Fungsi Invers. The precision of applying the Properties of the function graph and obtaining the Inverse Function.	Tugas 6: Latihan Soal tentang sifat-sifat grafik fungsi dan fungsi invers Task 6: Exercises on the properties of the graph of functions and inverse functions	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] Tutorial activities, exercises and provide assignment	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynconous di MyITS Classroom. Tutorial activities, exercises and	Sifat-sifat grafik fungsi dan Fungsi Invers. [1] hal: 86 – 99 Graph properties of functions and	

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		Indikator / <i>Indicator</i>	Kriteria & Teknik / <i>Criteria & Techniques</i>	Tatap Muka / <i>In-class (5)</i>	Daring / <i>Online (6)</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				. [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	provide assignment via synchronous / asynchronous in MyITSClassroom.	Inverse Functions. [1] page: 86-99	
ASISTESI KE 3 / <i>3th Assistance</i> Latihan soal-soal [TM : 2 x 50"] Practice- Exercises [FF : 2 x 50"]							
7	Mahasiswa mampu menghitung Limit fungsi. Students are able to calculate the function limit	Ketepatan menghitung Limit fungsi. The accuracy of calculating the Limit function.	Tugas 7: Latihan soal tentang notasi dan perhitungan limit. Task 7: Exercises about limit notation and calculation	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"]	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynconous di MyITS Classroom.	Limit fungsi. [1] hal: 101 - 114 Limit Function. [1] page: 101-114	
	Mahasiswa mampu menghitung limit tak hingga dan kekontinuan fungsi. Students are able to calculate infinite limit and continuity.	Ketepatan menghitung limit tak hingga dan kekontinuan fungsi . The accuracy of calculating the infinite limit and the continuity.	Tugas 8: Latihan soal tentang Limit di tak hingga dan kekontinuan Task 8: Exercises about infinite limits and continuity	Tutorial activities, exercises and provide assignment [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.	Limit tak hingga dan kekontinuan fungsi . [1] hal: 115 – 134 Infinite limit and continuity. [1] pp: 115 – 134	
8	EVALUASI KE-3 <i>3th Evaluation</i>	UJIAN TENGAHSEMESTER <i>MIDTERM EXAM</i>	Ketajaman menyelesaikan soal soalyang terkait dengan bilangan, fungsi, limit dan	TERJADWAL Ujian tertulis Waktu: 100 "	TERJADWAL Daring asinkronus Waktu: 90"		25

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		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			kekontinuan suatu fungsi. TES TERTULIS <i>Sharpness in solving problems related to the number, function, limit and continuity of a function.</i> WRITTEN TEST	SCHEDULED Written examination Time: 100 "	SCHEDULED Asynchronous Time: 90"		
9	Mahasiswa mampu menentukan Garis singgung dan laju perubahan serta menentukan turunan fungsi. Students are able to determine tangent lines and rates of change and determine derivative functions	Ketepatan menentukan Garis singgung dan laju perubahan serta menentukan turunan fungsi. The precision determines the tangent lines and rates of change and determines the derivative of the function.	Tugas 9: Latihan soal tentang garis singgung dan laju perubahan, fungsi turunan. Task 9: Exercises on tangent lines and rates of change, the derivative function.	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] Tutorial activities, exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous / asynchronous di MyITS Classroom. Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.	Garis singgung dan laju perubahan serta menentukan turunan fungsi. [1] hal: 135 – 146 Tangent lines and rates of change and determine the derivative of the function. [1] pp: 155-146	
10	Mahasiswa mampu menentukan Turunan dengan diferensial implisit dan menganalisa grafik	Ketepatan menentukan Turunan dengan diferensial implisit dan menganalisa grafik fungsi.	Tugas 10: Latihan soal tentang diferensiasi, aturan rantai dan diferensiasi implisit	Kuliah, latihan soal-soal serta memberikan soal tugas [TM : 3 x 50"]	Kuliah, latihan soal-soal serta memberikan soal tugas melalui synchronous /	Menentukan turunan dengan diferensial implisit dan	

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		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	fungsi. Students are able to determine derivatives with implicit differentials and analyze graphs of functions.	Determine the accuracy of the derivative by implicit differential and analyze the graph of the function.	<i>Task 10:</i> Exercises on differentiation, chain rule and implicit differentiation.	[BM : 3 x 60"] [PT : 3 x 60"] Tutorial activities, exercises and provide assignment [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	asynconous di MyITS Classroom. Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.	menganalisa grafik fungsi. [1] hal: 147 – 164 Determine the derivative with implicit differential and analyze the graph of the function. [1] page: 147 – 164	
ASISTENSI KE 4 / 4 th Asistence Latihan soal-soal [TM : 2 x 50"] Practice- Exercises [FF : 2 x 50"]							
11	Mahasiswa mampu Menyelesaikan laju- laju yang berkaitan dan menentukan selang naik/turunnya fungsi dan kecekungannya dengan menggunakan uji turunan pertama dan kedua.	Ketepatan menghitung laju- laju yang berkaitan dan menentukan selang naik/turunnya fungsi dan kecekungannya dengan menggunakan uji turunan pertama dan kedua The accuracy of calculating	Tugas 11: Latihan soal tentang laju – laju yang berkaitan, selang naik dan selang turun, kecekungan fungsi, ekstrim relatif, uji turunan pertama dan kedua. Task 11:	Kuliah, latihan soal- soal serta memberikan soal tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"] Tutorial activities,	Kuliah, latihan soal- soal serta memberikan soal tugas melalui synchronous / asynchronous di MyITS Classroom. Tutorial activities,	Laju-laju yang berkaitan dan menentukan selang naik/turunnya fungsi dan kecekungannya dengan menggunakan	

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		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Students are able to complete the rates associated with and determine the increase / decrease interval of the function and its concave by using the first and second derivative tests.	the corresponding rates and determining the increase / decrease of the function's interval and its proportions using the first and second derivative tests.	Exercises on the associated rates, the rise and fall intervals, the concavity of the function, the relative extremes, the first and second derivative tests.	exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]	exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.	uji turunan pertama dan kedua. [1] hal: 165 – 190 Related rates and determine the increase / decrease interval of the function and its proportions using the first and second derivative tests. [1] pp: 165 – 190	
	Mahasiswa mampu menentukan nilai maksimum/ minimum fungsi serta mampu mensketsa grafik fungsi polinomial, rasional dan grafik yang lainnya. Students are able to determine the maximum / minimum	Ketepatan menghitung nilai maksimum/ minimum fungsi serta mampu mensketsa grafik fungsi polinomial, rasional dan grafik yang lainnya. Accuracy in calculating the maximum / minimum value of functions and being able to sketch polynomial,	Tugas 12: Latihan soal tentang grafik polinomial dan fungsi rasional, nilai maksimum atau minimum suatu fungsi. Task 12: Exercises on graphing polynomials and rational functions, the maximum or minimum values of a			Nilai maksimum/ minimum fungsi serta mampu mensketsa grafik fungsi polinomial, rasional dan grafik yang lainnya . [1] hal: 191 - 211	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	value of functions and are able to sketch polynomial, rational and other graphical graphs of functions.	rational and other graphical functions.	function.			The maximum / minimum value of the function and able to sketch polynomial, rational and other graphical functions. [1] pp: 191 – 211	
12	ASISTENSI KE-5 / 5th Assistance Latihan soal-soal [TM : 2 x 50"] Practice- Exercises [FF : 2 x 50"]						
	EVALUASI KE-4 4th Evaluation	KUIS KE_3: Bahan Turunan Fungsidan laju-laju yang terkait. 3th QUIZ: Materials: Derived Functions and their associated rates	Ketajaman menyelesaikan soal soalyang terkait dengan turunan fungsi dan laju-laju yang terkait. Sharpness in solving problems related to the derivative of the function and its associated rates.	TES TERTULIS Waktu: 60 menit WRITTEN TEST Time: 60 minutes	TES TERTULIS Waktu: 50 menit melalui MyITS Classroom WRITTEN TEST Time: 50 minutes In myITS classroom		
13	Mahasiswa mampu menyelesaikan masalah yang berkaitan dengan	Ketepatan menyelesaikan masalah yang berkaitan dengan persoalan-	Tugas 13: Latihan soal tentang Aplikasi masalah maksimum	Kuliah, latihan soal-soal serta memberikan soal	Kuliah, latihan soal-soal serta memberikan soal	Masalah yang berkaitan dengan	

mgg/ Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) / <i>Final ability of each learning stage (LLO)</i>	Penilaian / <i>Assessment</i>		Bantuk Pembelajaran; Metode Pembelajaran; Penugasan Mahasiswa; [<i>Estimasi Waktu</i>] / <i>Form of Learning; Learning Method; Student Assignment; [Estimated Time</i>]		Materi Pembelajaran [Pustaka] / <i>Learning Material [Reference]</i>	Bobot Penilaian / <i>Assessment Load (%)</i>
		Indikator / <i>Indicator</i>	Kriteria & Teknik / <i>Criteria & Techniques</i>	Tatap Muka / <i>In-class (5)</i>	Daring / <i>Online (6)</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<p>persoalan-persoalan maksimum/minimum.</p> <p>Students are able to solve problems related to maximum / minimum problems.</p>	<p>persoalan maksimum/minimum.</p> <p>Accuracy in solving problems related to maximum / minimum problems</p>	<p>atau minimum, teorema rolledan teorema nilai rata-rata</p> <p>Task 13: Exercises on the application of the maximum or minimum problem, the rolle theorem and the mean value theorem</p>	<p>tugas [TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"]</p> <p>Tutorial activities, exercises and provide assignment . [FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]</p>	<p>tugas melalui synchronous / asyncornous di MyITS Classroom.</p> <p>Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.</p>	<p>persoalan-persoalan maksimum/minimum.</p> <p>[1] hal: 212 – 236</p> <p>Problems relating to maximum / minimum issues. [1] pp: 212 – 236</p>	
	<p>Mahasiswa mampu menentukan Anti turunan fungsi dan Luas sebagai limit jumlahan.</p> <p><i>Students are able to determine the derivative of the function and area as the sum limit.</i></p>	<p>Ketepatan menentukanAnti turunan fungsi danLuas sebagai limit jumlahan.</p> <p><i>The precision of determining the derivative of function andArea as the sum limit.</i></p>	<p>Tugas 14: Latihan soal tentang anti turunan, integral tak tentu, integrasi dengan substitusi dan luas sebagai limit</p> <p><i>Task 14: Exercise on anti- derivative, indefinite integral, integration with substitution and area as limit</i></p>			<p>Anti turunan fungsi dan Luas sebagai limit jumlahan.</p> <p>[1] hal: 237 - 259</p> <p>Anti derivative function and Area as the sum limit. [1] pp: 237 – 259</p>	
14	<p>Mahasiswa mampu menentukan Turunan dengan menggunakan</p>	<p>Ketepatan menentukan Turunan dengan menggunakan Teorema</p>	<p>Tugas 15: Latihan soal tentang integral tertentu, Teorema</p>	<p>Kuliah, latihan soal-soal serta memberikan soal</p>	<p>Kuliah, latihan soal-soal serta memberikan soal</p>	<p>Theorema Fundamental KalkulusI dan II</p>	

mgg/ Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) / Final ability of each learning stage (LLO)	Penilaian / Assessment		Bantuan 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	Tatap Muka / In-class (5)	Daring / Online (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<p>Teorema Fundamental Kalkulus I dan II .</p> <p><i>Students are able to determine the derivative using the Fundamental Theorem of Calculus I and II.</i></p>	<p>Fundamental Kalkulus I dan II .</p> <p><i>The accuracy of determining the derivative using the fundamental Theorem of Calculus I and II.</i></p>	<p>Fundamental Kalkulus I, integral tertentu dengan substitusi, hampiran jumlahan Riemann, Teorema Fundamental Kalkulus II</p> <p><i>Task 15: Exercises on certain integrals, fundamental theorem of Calculus I, certain integrals with substitutions, Riemann sum approximation, the fundamental Theorem of Calculus II</i></p>	<p>tugas</p> <p>[TM : 3 x 50"] [BM : 3 x 60"] [PT : 3 x 60"]</p> <p><i>Tutorial activities, exercises and provide assignment</i></p> <p>[FF : 3 x 50"] [SA : 3 x 60"] [SS : 3 x 60"]</p>	<p>tugas melalui synchronous / asynchronous di MyITS Classroom.</p> <p><i>Tutorial activities, exercises and provide assignment via synchronous / asynchronous in MyITS Classroom.</i></p>	<p>[1] hal: 260 - 297</p> <p><i>The Fundamental Theorems of Calculus I and II</i></p> <p>[1] page: 260 – 297</p>	
<p>ASISTENSI KE 6 / 6th Assistance</p> <p>Latihan soal-soal [TM : 2 x 50"]</p> <p><i>Practice- Exercises [FF : 2 x 50"]</i></p>							
15 – 16	EVALUASI KE_5 5th Evaluation	UJIAN AKHIR SEMESTER Final Exam	<p>Ketajaman menyelesaikan soal soalyang terkait dengan turunan dan anti turunan.</p> <p>TES TERTULIS</p> <p>Sharpness in solving problems related to derivatives and anti</p>	<p>TERJADWAL Ujian tertulis Waktu: 100"</p> <p>SCHEDULED Written examination Time: 100"</p>	<p>TERJADWAL Daring asinkronus Waktu: 90"</p> <p>SCHEDULED Written examination asynchronous my ITS classroom. Time: 90"</p>		25

mgg/ Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) / Final ability of each learning stage (LLO)	Penilaian / Assessment		Bentuk Pembelajaran; Metode Pembelajaran; Penugasan Mahasiswa; [Estimasi Waktu] / Form of Learning; Learning Method; Student Assignment; [Estimated Time]		Materi Pembelajaran [Pustaka] / Learning Material [Reference]	Bobot Penilaian /Assess- ment Load (%)
		Indikator / Indicator	Kriteria & Teknik / Criteria & Techniques				
(1)	(2)	(3)	(4)	Tatap Muka / In-class (5)	Daring / Online (6)	(7)	(8)
			derivatives. WRITTEN TEST				