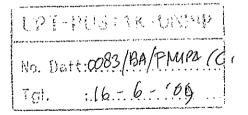


TEACHING-LEARNING CONTRACT LEARNING PROGRAM OUTLINE LEARNING UNIT PROGRAM

CALCULUS 2 PAS 202



STATISTICS STUDY PROGRAM OF MATHEMATICS DEPARTMENT
MATHEMATICS AND SCIENCE FACULTY
DIPONEGORO UNIVERSITY
SEMARANG
2007

TEACHING - LEARNING CONTRACT

Course Title : Calculus II

Code : PAS 202

Credit :3

Semester :2

1. Course Advantage

Giving elementary concept and stock to student for application and finish the problem of related to certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral in everyday life and finish the problem of more complex mathematics

2. Course Description

Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about: certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

3. General Instructional Aim

After attend this course, the student are expected to comprehend and also finish the problem of related to certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral, and also can applying its.

4. Lecture Strategic

this Lecturing Method use discourse method, question and answer and problem practices. Time estimation 150 minutes, 75 minutes of breakdown, problem example and question and answer, 75 minutes problem practice and do in front of class.

5. References

Reference book which used in this coure is:

- 1. Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.
- 2. Salas, S.L. and Hille E., 1982, Calculus One ans Several Variables, John Wiley and Sons, New York.

6. Number Of Hours and Division him

- Duty given self-supportingly
- Quiz will be given after two chapter finished
- Midterm and final exam given with closed book system.

7. Scoring Criteria

Criteria of scoring in this course is:

sco	ring	value
	A	4.0
	AB	3.5
	В	3.0
	BC	2.5
	C	2.0
	CD	1.5
	D	1.0
	DE	0.5
	Е	0.0

Determination of scoring criteria is used weighted such as:

No	Component	Percentage
1	Quiz	10
2	Self-done task Praktikum	10
3	Midterm	40
4	Final exam	40

8. Jadwal Perkuliahan

Veek	Material	References
1	Introduction	Mizrahi (1982)
	Introductio to integral	Salas (1982)
2	Certain Integral (Riemann)	Mizrahi (1982)
		Salas (1982)
3	8 Quiz	Mizrahi (1982)
	Integral Technique: Integral as Limit of amount, Fundamental Theorem of integrally	Salas (1982)
4	Integral Technique: Theorem Average	Mizrahi (1982)
	Value of integrally	Salas (1982)
5	Unnatural Integral : unnatural Integral -	Mizrahi (1982)
	infinite boundary	Salas (1982)
6	²⁰ Quiz	Mizrahi (1982)
	Unnatural Integral : unnatural Integralinfinite integran	Salas (1982)
7	Midterm	
8	Integral Usage: Wide of flat, length of arc	Mizrahi (1982)
		Salas (1982)
9	Integral Usage: Volume of arround object	Mizrahi (1982)
	and Wide of rotation	Salas (1982)
10	Quiz	Mizrahi (1982)
	Integral Usage : center of mass,	Salas (1982)
	inertia mass	

11	Beta and Gamma Function	Mizrahi (1982) Salas (1982)
12	Fourier Series and integral : periodic Definition Function and geometry series, Fourier series for periodic function with 2π period	Mizrahi (1982) Salas (1982)
13	 Quiz Fourier Series and integral: Fourier Series for periodic function with 2L period Sine and cosine fourier Series 	Mizrahi (1982) Salas (1982)
14	Final Exam	

LEARNING PROGRAM OUTLINE

Course Title: Calculus 2

Code : PAS 202

Credit : 3

Semester : 2

Course Description

Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about: certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

General Instructional Aim

After attend this course, the student are expected to comprehend and also finish the problem of related to certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral, and also can applying its.

		i				
No	Specific	Instructional Aim	Subject	Sub Subject	duration	References
1	expected t knowing led and recolle	ying this student are to be able to cturing contract ct integral items been passed to	B Course Introduction B Introduction of Integral	IntroductionUncertain integralCertain Integral	150 minutes	[1] and [2]
2		ying this e student are o be able to	Certain Integral (Riemann)	Certain Integral and his characteristicCertain Integral for	150 minutes	[1] and [2]

	explaining about uncertain		function having the		
	integral of a function, and		special		
	can determine certain		characteristic		
	integral value of a function.				
3	After studying this	Integral	Integral as Limit of	300	[1] and [2]
	course, the student are	technique	amount	minutes	
	expected to be able to		 Fundamental 		
	using concept of limit to		theorem for		
	explain integral definition		counting integral		
	and can differentiate integral		average value		
	problem forms and finishing		theorem for		
	him by using certain integral		counting integral		
	technique				
4	After studying this	Unnatural	unnatural Integral -	300	[1] and [2]
	course, the student are	integral	infinite boundary	minutes	
	expected to be able to		unnatural Integral -		
	explaining unnatural integral		infinite integran		
	forms and can finish				
	problems it related to				
	unnatural integral form.				
5	After studying this	Integral usage	wide of flat,	450	[1] and [2]
	course, the student are		length of arc,	minutes	
	expected to be able to		rotation object		
	using integral for		volume		
	calculate wide of flat,		wide of rotation		
	length of arc, rotation		object		
	object volume, wide of		center of mass		
	}		inertia mass		
	rotation object, center of		- merua mass		
	mass and inertia mass			4 - 0	F-1 - F-1
6	After studying this	Special	Beta function	150	[1] and [2]
	course, the student are	Functions	■ Gamma function	minutes	
	expected to be able to				
	explaining the definition of				
	Beta and Gamma function,		1 		
	explaining its relation with				
1	i {	1	1	1	1
	Gamma			1	

7	After studying thi	s Fourier series	Definition of	300	[1] and [2]
	course, the studen	at are and fourier	periodic function	minutes	
	expected to be ab	le to Integral	and geometry series		
	elaborating a functi	on in	 Fourier series for 		
	fourier series and d	letermine	periodic function		
	the amount of aseri	ies	with 2π period		
	which is convergen	·	• Fourier series for		
	using fourier expan certain function.	ce of	periodic function		
	Certain function.		with 2π period		
			Sine and cosine		
			fourier Series		

References:

- 1. Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.
- 2. Salas, S.L. and Hille E., 1982, Calculus One ans Several Variables, John Wiley and Sons, New York.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration : 150 minutes

Week :1

A. INSTRUCTIONAL AIM

1. General

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

2. Specific

: After studying this course, the student are expected to be able to knowing lecturing contract and recollect integral items which have been passed to Calculus I

B. SUBJECT

: Course Introduction and Introduction of Integral

C. SUB SUBJECT

: Course Introduction, Uncertain Integral, Certain Integral

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	 Expalining about matter at the 1st meeting Expalining about general and specific objectives competence Expalining about lecturing contract and recollect integral items which have been passed 	Observing and taking notes	OHP, transparancy White board

	to Calculus I		
PRESENTATION	uncertan integral and certain integral	Observing, asking, taking notes, doing task	OHP, transparancy White board
CLOSING	work student	Answering to, discussion, taking a notes	White board

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week :2

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II

representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount,

nature of certain integral, Fundamental theorem for counting

integral, average value theorem for counting integral, unnatural

integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

explaining about uncertain integral of a function, and can determine

certain integral value of a function

B. SUBJECT : Certain integral (Riemann)

C. SUB SUBJECT : Course Certain Integral and his characteristic, Certain Integral for

function having the special characteristic

STAGE	LECTURER ACTIVITIES		STUDENT ACTIVITIES	LEARNING MEDIA	
INTRODUCTI	9	Expalining abo at the 2nd meet Expalining general and objectives comp Expalining Certain (Riemann) cond	about specific setence about integral	Observing and taking notes	OHP, transparancy White board

PRESENTATION	8	Explaining certain	Observing,	OHP, transparancy
		integral elementary	asking, taking	White board
		concepts and	notes, doing	
		congeniality and	task	
		geometric interpretation		
		of him		
	a	Explaining the		
		characteristic of certain		
		integral		
	ø	Giving some example		
	23	Writing questions		
		requesting personal		
		information		
CLOSING	8	Giving comment to	Answering to,	White board
		work student	discussion,	
	•	Giving task to be done at	taking a notes	
		home		
	100	Describing material at		
, i		week-3		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title : Calculus 2

Code PAS 202

Credit :3

Duration : 150 minutes

Week :3

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study

about : certain integral (Riemann), integral as limit of amount,

nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural

integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

using concept of limit to explain integral definition and can

differentiate integral problem forms and finishing him by using certain integral technique

B. SUBJECT : Integral technique

C. SUB SUBJECT : Integral Integral as Limit of amount, Fundamental theorem for

counting integral

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	 Expalining about matter at the 3rd meeting Expalining about general and specific objectives competence Quiz 	Observing and taking notes	OHP, transparancy White board

	■ Expalining about		
	integral technique		
PRESENTATION	 Expalining about partia 		
	lintegral technique	asking, taking White board	l
	Expalining about	notes, doing	
	Integral Integral as Limit	task	
	of amount		
	Expalining about	,	
	Fundamental theorem		
	for counting integral		
	Giving some example		
	■ Writing questions		
	requesting personal		
	information		
CLOSING	Giving comment to	Answering to, White board	l
	work student	discussion,	
	Giving task to be done at	t taking a notes	
	home		
	Describing material a	t	
	week-4		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration : 150 minutes

Week :4

A. INSTRUCTIONAL AIM

1. General

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

2. Specific

: After studying this course, the student are expected to be able to using concept of limit to explain integral definition and can differentiate integral problem forms and finishing him by using certain integral technique

B. SUBJECT

: Integral technique

C. SUB SUBJECT

: Average value theorem for counting integral

+			
STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTIO	e Expalining about matter at the 4th meeting Expalining about general and specific objectives competence Expalining Expalining about integral technique	Observing and taking notes	OHP, transparancy White board
PRESENTATIO	ON Expalining about	Observing,	OHP, transparancy

	average value theorem	asking, taking notes, doing	White board
	 Giving some example Writing questions requesting personal information 	task	
CLOSING	 Giving comment to work student Giving task to be done at home 	discussion, taking a notes	White board
	 Describing material at week-5 		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration : 150 minutes

Week:5

A. INSTRUCTIONAL AIM

1. General : Calculus II at S

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

explaining unnatural integral forms and can finish problems it

related to unnatural integral form

B. SUBJECT : Unnatural integral

C. SUB SUBJECT : Unnatural Integral - infinite boundary

			,
STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	 Expalining about matter at the 5th meeting Expalining about general and specific objectives competence Expalining about Unnatural integral concept 		OHP, transparancy White board
PRESENTATION	Expalining about	Observing,	OHP, transparancy

	Unnatural Integral - infinite boundary Giving some example Writing questions requesting personal	asking, taking notes, doing task	White board
CLOSING	information Giving comment to	Answering to,	White board
	work student Giving task to be done at home	discussion, taking a notes	
	Describing material at week-6		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week : 6

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II

representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount,

about . Certain integral (Kichiann), integral as mine of antonic,

nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural

integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

explaining unnatural integral forms and can finish problems it

related to unnatural integral form

B. SUBJECT : Unnatural Integral

C. SUB SUBJECT : Unnatural Integral - infinite integran

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	 Expalining about matter at the 1st meeting Expalining about general and specific objectives competence Quiz 	Observing and taking notes	OHP, transparancy White board
PRESENTATION	Expalining aboutUnnatural Integral -infinite integran	Observing, asking, taking notes, doing	OHP, transparancy White board

	 Giving some example task Writing questions requesting personal information
CLOSING	Giving comment to Answering to, White board work student discussion, Giving task to be done at home Describing material at midterm

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title : Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week :8

A. INSTRUCTIONAL AIM

1. General : Calculus II

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to using integral for calculate wide of flat, length of arc, rotation

object volume, wide of rotation object, center of mass and inertia

mass

B. SUBJECT

: Integral usage

C. SUB SUBJECT

: Wide of flat, length of arc

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTIO	Expalining about matter at the 8th meeting Expalining about general and specific objectives competence Reminding again uncertain integral formulas a function	Observing and taking notes	OHP, transparancy White board

PRESENTATION	 Explaining about concept and congeniality of wide of a curve Explaining about length of arc concepts and congeniality Giving some example Writing questions 	asking, taking notes, doing task	OHP, transparancy White board
CLOSING	requesting personal information Giving comment to		White board
	work student	discussion,	
1 1 2 3 3 3 3	Giving task to be done at home	taking a notes	
	 Describing material at week-9 		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title : Calculus 2

Code

PAS 202

Credit

: 3

Duration

150 minutes

Week

: 9

A. INSTRUCTIONAL AIM

1. General

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

2. Specific

: After studying this course, the student are expected to be able to using integral for calculate wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass

B. SUBJECT

: Integral usage

C. SUB SUBJECT

: rotation object volume, wide of rotation object

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	Expalining about matter at the 9th meeting Expalining about general and specific objectives competence Reminding again uncertain integral formulas a function	Observing and taking notes	OHP, transparancy White board

PRESENTATION	9	Explaining about	Observing,	OHP, transparancy
		concepts and	asking, taking	White board
		congeniality of rotation	notes, doing	
		object volume	task	
	8	Explaining about		
		concepts and		
		congeniality of wide of		
		rotation object		
	B	Giving some example		
	2	Writing questions		
		requesting personal		
		information		
CLOSING		Giving comment to	Answering to,	White board
		work student	discussion,	
		Giving task to be done at	taking a notes	
		home		
		Describing material at		
		week-10		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title : Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week : 10

A. INSTRUCTIONAL AIM

1. General

: Calculus II at Statistic given for the student in semester II representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount, nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural integral, integral usage : wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass, Beta and Gamma Function, Fourier series and integral.

2. Specific

: After studying this course, the student are expected to be able to using integral for calculate wide of flat, length of arc, rotation object volume, wide of rotation object, center of mass and inertia mass

B. SUBJECT

: Integral Usage

C. SUB SUBJECT

: Center of mass and inertia mass

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTIO	Expalining about matter at the 10th meeting Expalining about general and specific objectives competence Quiz	Observing and taking notes	OHP, transparancy White board
PRESENTATIO	N Explaining about concepts and	Observing, asking, taking	OHP, transparancy White board

	congeniality of Center of notes, doing
	mass task
	Explaining about
	concepts and
	congeniality of inertia
}	mass
	Giving some example
1	■ Writing questions
	requesting personal
	information
CLOSING	Giving comment to Answering to, White board
	work student discussion,
	Giving task to be done at taking a notes
5	home
	Describing material at
	week-11
CLOSING	work student Giving task to be done at home Describing material at

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week :11

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II

representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount,

nature of certain integral, Fundamental theorem for counting

integral, average value theorem for counting integral, unnatural

integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

explaining the definition of Beta and Gamma function, explaining

its relation with Gamma.

B. SUBJECT : special functions

C. SUB SUBJECT : Beta and Gamma function

		CONTENT	
STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	Expalining about matter at the 11th meeting Expalining about general and specific objectives competence Explaining special functions of integral form	Observing and taking notes	OHP, transparancy White board
PRESENTATION		Observing,	OHP, transparancy

	concepts and asking, taking White board	***
	congeniality of Beta notes, doing	
	function task	
	Explaining about	
	concepts and	
	congeniality of Gamma	
	function	
	Giving some example	
	Writing questions	
	requesting personal	
	information	
CLOSING	Giving comment to Answering to, White board	
	work student discussion,	
0.00	Giving task to be done at taking a notes	
	home	
	■ Describing material at	
	week-12	
1	·	

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title : Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week : 12

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II

representing continuation of Calculus I. As for Calculus II study

about : certain integral (Riemann), integral as limit of amount,

nature of certain integral, Fundamental theorem for counting integral, average value theorem for counting integral, unnatural

integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

elaborating a function in fourier series and determine the amount of

aseries which is convergent by using fourier expance of certain

function.

B. SUBJECT : Fourier series and integral

C. SUB SUBJECT: Definition of periodic function and geometry series, Fourier series

for periodic function with 2π period

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	Expalining about matter at the 12th meeting Expalining about general and specific objectives competence Expalining about	Observing and taking notes	OHP, transparancy White board

	concepts Fourier series and integral
PRESENTATION	Expalining about definition of periodic function and geometry series, fourier series for periodic function with 2π period Giving some example Writing questions requesting personal information OHP, transparancy White board White board White board
CLOSING	Giving comment to Answering to, White board work student discussion, Giving task to be done at home Describing material at week-13

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.

Course Title: Calculus 2

Code : PAS 202

Credit :3

Duration: 150 minutes

Week : 13

A. INSTRUCTIONAL AIM

1. General : Calculus II at Statistic given for the student in semester II

representing continuation of Calculus I. As for Calculus II study about : certain integral (Riemann), integral as limit of amount,

about. Certain integral (Richam), integral as mint of amount,

nature of certain integral, Fundamental theorem for counting

integral, average value theorem for counting integral, unnatural integral, integral usage: wide of flat, length of arc, rotation object

volume, wide of rotation object, center of mass and inertia mass,

Beta and Gamma Function, Fourier series and integral.

2. Specific : After studying this course, the student are expected to be able to

elaborating a function in fourier series and determine the amount of

aseries which is convergent by using fourier expance of certain

function.

B. SUBJECT : Fourier series and integral

C. SUB SUBJECT: Definition of periodic function and geometry series, Fourier series

for periodic function with 2L period

STAGE	LECTURER ACTIVITIES	STUDENT ACTIVITIES	LEARNING MEDIA
INTRODUCTION	 Expalining about matter at the 12th meeting Expalining about general and specific objectives competence Quiz 	Observing and taking notes	OHP, transparancy White board

PRESENTATION	ø	Expalining about	Observing,	OHP, transparancy
		definition of periodic	asking, taking	White board
		function and geometry	notes, doing	
		series, fourier series for	task	
		periodic function with		
		2L period		:
	9	Giving some example		
	P	Writing questions		
		requesting personal		
		information		
CLOSING	8	Giving comment to	Answering to,	White board
		work student	discussion,	
	8	Giving task to be done at	taking a notes	
		home		
	12	Describing material at		
		final exam		

: Giving problem to the students..

F. REFERENCES

: Mizrahi, A. and Sullivan M., 1982, Calculus and Analyic Geometry, Wadsworth.