

COURSE SYLLABUS

- 1. Program Studi : Pendidikan Matematika
- 2. Kode Mata kuliah : PMA3204
- 3. Nama Mata kuliah : English for Maths
- 4. Semester : Genap
- 5. Bobot SKS : Teori =2 sks, Praktek = 0 sks
- 6. Mata Kuliah Syarat : Bahasa Inggris
- 7. Koordinator Mata Kuliah : Khairatul Ulya, M. Ed
- 8. Dosen Pengampu : Khairatul Ulya, M. Ed
- 9. Tanggal Penyusunan : 20 Januari 2023

Course Description : Topics will include (1) The importance of English proficiency for learning and teaching mathematics (2) Some ways to comprehend mathematical texts written in English (3)How Comprehend parts of mathematics concepts

Course Goals : Students gain sufficient insight in comprehending mathematical texts written in and able to convey and explain some simple concepts of mathematics in English.

Section	Standard of Competency	Topics	Class activity	Indicator	Assessment	Time Allocation	Resources/Tools/ Media
1.	1. Students enable to understand the course policies	<ul style="list-style-type: none"> 1. Course Policies such as assignments, attendance and absences 2. Introduction of Course topics English for Maths 	<ul style="list-style-type: none"> • Learning how to contribute to class • Learning how cherish other opinion • Discussing course topics 	<ul style="list-style-type: none"> 1.1. Students enable to make an agreement related to course policies 1.2. Students show their communication in the classroom 1.3. Students enables to describe about the course topics 	<ul style="list-style-type: none"> • developing, planning and managing independent work • Character: responsibility 	100'	Course Policies Syllaby
2	2. Students demonstrate understanding of	1. The important of English proficiency for learning and teaching	<ul style="list-style-type: none"> • Describe and discuss The Purpose of learning English 	2.1 Students able to explain The Purpose of learning English for Math	<ul style="list-style-type: none"> • Working effectively as part of a 	100'	LCD Cambridge Advance Dictionary References:

	The importance of English proficiency for learning and teaching mathematics	<p>mathematics</p> <ul style="list-style-type: none"> The Purpose of learning English for Math The Reason why English proficiency is important for learning and teaching mathematics 	<p>for Math</p> <ul style="list-style-type: none"> Describe and discuss The Reason why English proficiency is important for learning and teaching mathematics 	<p>2.2 Students able to identify The Reason why English proficiency is important for learning and teaching mathematics</p>	<p>team</p> <ul style="list-style-type: none"> Character: Responsibility, team work 		
3.	<p>3. Students demonstrate understanding of Some ways to comprehend mathematical texts written in English in this case “Gain vocabulary in mathematics”</p>	<p>Gain vocabulary in mathematics</p> <ul style="list-style-type: none"> Finding some difficult vocabulary in text Using some strategy for memorizing the vocabulary. 	<ul style="list-style-type: none"> Discussing some mathematical text written in English Discussing about the difficult vocabulary Using some strategy given to memorize the difficult vocabulary. 	<p>3.1. Students able to find some difficult vocabulary in the text</p> <p>3.2. Students able to apply the strategy in memorizing difficult vocabulary.</p> <p>3.3. Students able to use the vocabulary in other sentences.</p>	<ul style="list-style-type: none"> Working effectively as part of a team Character: Responsibility, team work 	100'	<p>LCD Flash Card Cambridge Advance Dictionary References:</p> <ul style="list-style-type: none"> Cockburn, Anne D. & Littler, Graham (2008), Mathematical misconceptions, Thousand Oaks, CL: Sage Miller, Irwin & Miller, Marylees (2004). John E. Freund's mathematical statistics with applications (7th ed.). Upper Saddle River, NJ: Pearson. Spatz, Chris (2005). Basic Statistics: Tales of distribution (8th edition). Belmont, CA: Wadsworth Thomson Learning.
4.	<p>4. Students demonstrate understanding of some ways to comprehend mathematical texts written in English in this case “Read articles on mathematics</p>	<p>4. Mathematics article or related to mathematics</p>	<ul style="list-style-type: none"> Describe and discuss some Mathematics articles or related to mathematics demonstrate understanding of the Mathematics articles or related to mathematics 	<p>4.1 Students able to Describe and discuss some Mathematics articles or related to mathematics</p> <p>4.2 Students able to demonstrate understanding of the Mathematics articles or related to mathematics</p>	<ul style="list-style-type: none"> Working effectively as part of a team Character: Responsibility, team work 	100'	<p>LCD Some reading articles Cambridge Advance Dictionary References:</p> <ul style="list-style-type: none"> Mumme, J., the California Middle Grades Mathematics Renaissance in Susan Loucks-Horseley, et al., 2003, Designing professional development for teachers of

	and related to mathematics”						<p>science and mathematics, Thousand Oaks, CL: Sage</p> <ul style="list-style-type: none"> • Andy Field (2005). Discovery Statistics Using SPSS.(second edition).London:Sage Publications. • Cockburn, Anne D. & Littler, Graham (2008), Mathematical misconceptions, Thousand Oaks, CL: Sage
5	5 Students able to demonstrate the understanding of Trying to comprehend mathematics graphs and statistical tables and charts;	5. mathematical graphs and statistical tables and charts;	<ul style="list-style-type: none"> • Describe and discuss some mathematics graphs and statistical tables and charts; • demonstrate understanding of the mathematics graphs and statistical tables and charts • explain the mathematics graphs and statistical tables and charts on formal written works. 	<p>5.1 Students able to describe and discuss some mathematics graphs and statistical tables and charts</p> <p>5.2 Students able to demonstrate understanding of the mathematics graphs and statistical tables and charts</p> <p>5.3 Students able to explain the mathematics graphs and statistical tables and charts on formal written works.</p>	<ul style="list-style-type: none"> • Working effectively as part of a team • Character: Responsibility, team work 	100'	<p>LCD</p> <p>Some reading articles</p> <p>Cambridge Advance Dictionary</p> <p>References:</p> <ul style="list-style-type: none"> • Andy Field (2005). Discovery Statistics Using SPSS.(second edition).London:Sage Publications. • Miller, Irwin & Miller, Marylees (2004). John E. Freund's mathematical statistics with applications (7th ed.). Upper Saddle River, NJ: Pearson. • Spatz, Chris (2005). Basic Statistics: Tales of distribution (8th edition). Belmont, CA: Wadsworth Thomson Learning.
6,7	6. Students able to demonstrate Comprehending parts of mathematics concepts Algebra: set	6 Concepts Algebra: <ul style="list-style-type: none"> • set theory • calculus • probability theory • statistics 	<ul style="list-style-type: none"> • Describe and discuss concept of set theory • Describe and discuss concept of calculus • Describe and discuss concept of 	<p>6.1 Students able to describe and discuss concept of set theory</p> <p>6.2 Students able to describe and discuss concept of</p>	<ul style="list-style-type: none"> • Working effectively as part of a team • Character: 	100'	<p>LCD</p> <p>Some reading articles</p> <p>Cambridge Advance Dictionary</p> <p>References:</p> <ul style="list-style-type: none"> • Douglas K.Brumbaugh,David

	theory, probability, statistics, algebra	calculus, theory, linear	<ul style="list-style-type: none"> linear algebra 	<p>probability theory</p> <ul style="list-style-type: none"> Describe and discuss concept of statistics Describe and discuss concept of linear algebra 	<p>calculus</p> <p>6.2 Students able to describe and discuss concept of probability theory</p> <p>6.3 Students able to describe and discuss concept of statistics</p> <p>6.4 Students able to describe and discuss concept of linear algebra</p>	Responsibility, team work		<p>Rock (2006). Teaching Secondary Mathematics. (3th edition) London:Lawrence Erlbau Associates</p> <ul style="list-style-type: none"> Cockburn, Anne D. & Littler, Graham (2008), Mathematical misconceptions, Thousand Oaks, CL: Sage Ahmed Cakir (2005). Integrals. Izmir, Turkey: Zambak Spatz, Chris (2005). Basic Statistics: Tales of distribution (8th edition). Belmont, CA: Wadsworth Thomson Learning.
8,9	7. Students able to demonstrate Comprehending parts of mathematics concepts Arithmetic: linear equation, quadratic equation, coordinate geometry, number theory, arithmetic and geometric sequences	7.concepts Arithmetic: <ul style="list-style-type: none"> linear equation quadratic equation function coordinate geometry number theory arithmetic and geometric sequences 	<ul style="list-style-type: none"> Describe and discuss concept of linear equation Describe and discuss concept of quadratic equation Describe and discuss concept of function Describe and discuss concept of coordinate geometry Describe and discuss concept of number theory Describe and discuss concept of arithmetic and geometric sequences 	<p>7.1 Students able to describe and discuss concept of linear equation</p> <p>7.2 Students able to describe and discuss concept of quadratic equation</p> <p>7.3 Students able to describe and discuss concept of function</p> <p>7.4 Students able to describe and discuss concept of coordinate geometry</p> <p>7.5 Students able to describe and discuss concept of number theory</p> <p>7.6 Students able to describe and discuss concept of arithmetic and geometric sequence</p>	<ul style="list-style-type: none"> Working effectively as part of a team Character: Responsibility, team work 	200'	<p>LCD</p> <p>Some reading articles</p> <p>Cambridge Advance Dictionary</p> <p>References:</p> <ul style="list-style-type: none"> Douglas K.Brumbaugh,David Rock (2006). Teaching Secondary Mathematics. (3th edition) London:Lawrence Erlbau Associates Cockburn, Anne D. & Littler, Graham (2008), Mathematical misconceptions, Thousand Oaks, CL: Sage Ahmed Cakir (2005). Integrals. Izmir, Turkey: Zambak 	
10.	Mid-Test							
11,12	8. Students able to demonstrate	Concept of Geometry: <ul style="list-style-type: none"> line and angle 	<ul style="list-style-type: none"> Describe and discuss concept of line and angle 	8.1 Students able to describe and discuss concept of line and	<ul style="list-style-type: none"> Working effectively as 	200'	LCD	Some reading articles

	Comprehending parts of mathematics concept of Geometry: line and angle, Polygon, Triangle, Circle, Three dimensional figures	<ul style="list-style-type: none"> • Polygon • Triangle • Circle • Three dimensional figures 	<ul style="list-style-type: none"> • Describe and discuss concept of Polygon • Describe and discuss concept of Triangle • Describe and discuss concept of Circle • Describe and discuss concept of Three dimensional figures 	<p>angle</p> <p>8.2 Students able to describe and discuss concept of Polygon</p> <p>8.3 Students able to describe and discuss concept of Triangle</p> <p>8.4 Students able to describe and discuss concept Circle</p> <p>8.5 Students able to describe and discuss concept Three dimensional figures</p>	<p>part of a team</p> <ul style="list-style-type: none"> • Character: Responsibility, team work 		<p>Cambridge Advance Dictionary</p> <p>References:</p> <ul style="list-style-type: none"> • Ilker Tanturk (2006). Introduction to Trigonometry. Izmir, Turkey:Zambak. • Mumme, J., the California Middle Grades Mathematics Renaissance in Susan Loucks-Horseley, et al., 2003, Designing professional development for teachers of science and mathematics, Thousand Oaks, CL: Sage • Pat Mower (2005). Geometry Out Loud: Learning Mathematics Through Reading and Writing Activities. San Francisco:USA:Jossey-Bass
13,14,15	9. Students able to demonstrate Comprehending parts of mathematics concept of Data analysis: Graphical methods for describing data, counting methods, probability, Distribution of data, data interpretation, plane and solid geometry	9. Concept of Data analysis: <ul style="list-style-type: none"> • Graphical methods for describing data • counting methods • probability • Distribution of data • data interpretation • plane and solid geometry 	<ul style="list-style-type: none"> • Describe and discuss concept of Graphical methods for describing data • Describe and discuss concept of counting methods • Describe and discuss concept of probability • Describe and discuss concept of Distribution of data • Describe and discuss concept of data interpretation • Describe and discuss concept of plane and solid geometry 	<p>9.1 Students able to describe and discuss concept of Graphical methods for describing data</p> <p>9.2 Students able to describe and discuss concept of counting methods</p> <p>9.3 Students able to describe and discuss concept of probability</p> <p>9.4 Students able to describe and discuss concept of Distribution of data</p> <p>9.5 Students able to describe and discuss concept of data interpretation</p> <p>9.6 Students able to describe and discuss concept of</p>	<ul style="list-style-type: none"> • Working effectively as part of a team • Character: Responsibility, team work 	300'	<p>LCD</p> <p>Some reading articles</p> <p>Cambridge Advance Dictionary</p> <p>References:</p> <ul style="list-style-type: none"> • Ilker Tanturk (2006). Introduction to Trigonometry. Izmir, Turkey:Zambak. • Mumme, J., the California Middle Grades Mathematics Renaissance in Susan Loucks-Horseley, et al., 2003, Designing professional development for teachers of science and mathematics, Thousand Oaks, CL: Sage • Pat Mower (2005). Geometry Out Loud: Learning

				plane and solid geometry			Mathematics Through Reading and Writing Activities. San Francisco:USA:Jossey-Bass
16	FINAL EXAMINATION						