



Republic of the Philippines
Department of Education
Region IV-A CALABARZON

CITY SCHOOLS DIVISION OFFICE OF ANTIPOLO



DIVISION ADVISORY NO 34, S. 2019

In compliance with DepEd Order No. 8, S. 2013

This Advisory is issued for the information of all Public and Private Elementary, Junior and Senior High Schools
March 12, 2019

MATHTEX 2019: TEACHER TRAINING ON CALCULUS 2

The Mathematics Division of the Institute of Mathematical Sciences and Physics (IMSP) of the University of the Philippines Los Baños (UPLB) will be conducting MATHTEX 2019, a three-day training for high school mathematics teachers on April 27-29, 2019 at the University of the Philippines Los Baños

The training aims to deepen teacher's knowledge on Calculus. This year's MATHTEX will focus on the theoretical development of Calculus.

A registration fee of Php 4,000.00 (regular)/Php 3,500 (early bird) shall be collected from each participant to cover cost of food, seminar kit, professional fees and other materials.

Details of the training is indicated on the attached documents.

Interested participants are requested to submit a letter of intent addressed to the office of the Schools Division Superintendent for record and reference. (*Refer to the revised guidelines stipulated in DM No. 63, s. 2017*).

Participation of both public and private schools shall be subject to the **NO-DISRUPTION OF CLASSES POLICY** stipulated in DepEd Order No. 9, s. 2005 entitled *Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith*.

For the information of the field.

@03HRD_alt



Certificate No.
44 100 19 93 0005

"EDUKASYONG TAPAT AT SAPAT PARA SA LAHAT"

New Bldg - Sports Educational Hub, Sen. L. Sumulong Memorial Circle, Brgy. San Isidro, Antipolo City
Old Bldg. - C. Lawis Extension, Barangay San Isidro, Antipolo City
www.depedantipolo.com antipolo.city@deped.gov.ph
(02) 630-3110

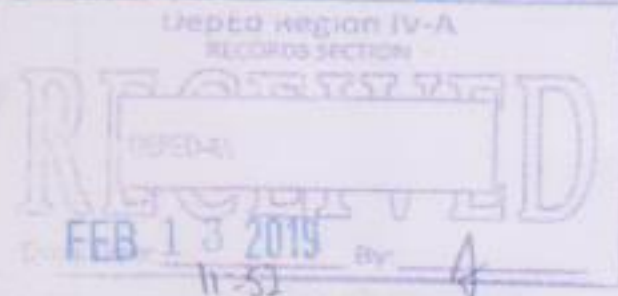
To: SDS
For widest dissemination!
please. Thank you. God Bless!
Feb 2019



MATHEMATICS DIVISION
Institute of Mathematical Sciences and Physics

07 February 2019

DR. DIOSDADO SAN ANTONIO
Regional Director, Department of Education Region IV-A
Karangalan ES, Karangalan Village, Cainta, Rizal



1765

Subj: Request to issue an advisory endorsing the MATHTEX 2019: Teacher Training on Calculus 2

Dear Dr. Paragas:

Greetings!

The Mathematics Division of the Institute of Mathematical Sciences and Physics (IMSP) of the University of the Philippines Los Baños (UPLB) will be conducting MATHTEX 2019, a three-day training for high school mathematics teachers. Faithful to the commitment of developing mathematics in the community as a national center of excellence, MATHTEX has become one of the annual public service activities of the Institute.

This year's teacher training aims to deepen teachers' knowledge on Calculus. Calculus is the mathematical study on changing quantities. It has two branches: the differential calculus and the integral calculus, which interestingly have been developed separately. This year's MATHTEX will focus on the theoretical development of Calculus. Aside from this, the training also aims to give mathematics teachers a platform to meet each other and share their ideas and build camaraderie.

In this regard, we are humbly requesting your office the issuance of a Memorandum endorsing MATHTEX 2019 to all mathematics educators nationwide. This event will be held from 27 to 29 April, 2019 at the University of the Philippines Los Baños. A registration fee PhP 4,000 (regular) / PhP 3,500 (early bird) shall be collected from each participant to cover the cost of food, seminar kit, professional fees and other materials.

Attached are the rationale, programme and other details pertinent to this event. For queries, you may contact us at phone numbers <049-572-2526>, <0915-994-2606> and look for Diane, or email us at mathtex.uplb@up.edu.ph.

Thank you very much and we are looking forward to your positive response.

Very truly yours,

PROF. DIANE CARMELIZA N. CUARESMA
Chair, Organizing Committee

DR. JERROLD M. TUBAY
Head, Mathematics Division

Endorsed by:

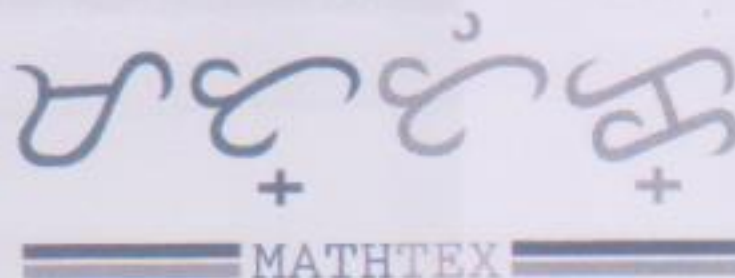
DR. CHRYSLAINE MARGUS N. PIÑOL
Director, IMSP

DR. FELINO P. LANSIGAN
Dean, CAS
Joey 09339582784

MATHTEX 2019: Teacher Training on Calculus 2

27 - 29 April 2019

University of the Philippines Los Baños



Description: MATHTEX 2019 is a three-day intensive training on Calculus that will cover selected topics in Limits and Continuity, Derivatives, and Integrals. Lectures will be delivered by experienced professors of mathematics in the University. Each lecture will be followed by parallel sessions where the participants will be given time to answer exercises under the supervision of equally-knowledgeable facilitators.

Rationale of MATHTEX: The implementation of the K-12 program has brought major changes in the mathematics curricula of junior and senior high schools. Faithful to the commitment of developing mathematics and mathematics education in the community as a National Center of Excellence, the Mathematics Division of the Institute of Mathematical Sciences and Physics has risen to the challenge of providing training programs to the secondary school mathematics educators. MATHTEX envisions to establish a community of strong mathematics teachers in the region with solid foundation and deep conceptual understanding of mathematical theories.

Objectives of MATHTEX 2019: This year's teacher training aims to deepen teachers' knowledge on Calculus. Calculus is the mathematical study on changing quantities and has many applications in different fields. It has two branches: the differential calculus and the integral calculus, which interestingly have been developed separately. This year's MATHTEX will focus on the theoretical development of Calculus.

At the end of MATHTEX 2019, the participants are expected to:

- (1) State the definition of a limit of a function and of continuous functions, of derivatives, and of integrals;
- (2) Prove theorems on limit of functions and on continuity of functions; and,
- (3) Evaluate limit of a function at a number and at infinity, and derivative and definite integral of a function using the definitions.

Outline of Topics:

Unit 1. Limits and Continuity

In this section, the participants are expected to state the definition of a limit of a function. Participants are expected to understand and apply the definition of the limit of a function in different examples and prove theorems involving limits and continuity. Participants are also expected to state the definition of a continuous function.

- a. Definition of a Limit of a Function
- b. Limit Theorems*
- c. Limits Involving Infinities
- d. Continuity at a Number
- e. Continuity on an Interval

Unit 2. Derivatives

In this section, participants are expected to state, understand, and apply the definition of derivatives. They are expected to prove theorems involving derivatives.

- a. Definition of Derivatives

8102 9 2 NOV 2019
18111835

- b. Theorems on Finding Derivative of a Function*
- c. Higher Order Derivatives*
- d. The Chain Rule*
- e. Implicit Differentiation

Unit 3. Integrals

In this section, participants are expected to state and find the Riemann integral of a function over an interval. Participants are expected to prove theorems involving definite integrals. They are also expected to use definite integrals to find the area of a plane region.

- a. Definition of Definite Integral
- b. Area of a Plane Region

*will be included in the training module that will be provided to all participants but will not be discussed during the lectures

Methodologies: MATHTEX 2019 is a three-day intensive training. Lectures, which will be done in plenary, will be spread-out throughout the three days. Each lecture will be immediately followed by break-out sessions. In break-out sessions, participants will be separated into groups of at least 20. In these sessions, they will be given time to answer exercises regarding the topics delivered during the lectures. They will be assisted by facilitators. Participants' test scores in a pre-test to be administered after the opening ceremony will be used to separate the participants accordingly.

Evaluation: All break-out session will be concluded with a 1-hour exam for evaluation purposes. Participants are expected to gain at least 50% in each exam to consider the training program effective.

Target Participants: Teachers with background of basic Calculus and who are handling/expected to handle Calculus topics from either private or public high schools in CALABARZON and MIMAROPA are enjoined to attend MATHTEX 2019.

Registration Fee: The registration fee is PhP 4,000 (regular rate), which will cover snacks, lunch, seminar kit, and professional fees. An early-bird rate of PhP 3,500 will be offered to those who will register and pay the fees on or before 5 April 2019 (Friday). Only those who pay on or before this date can acquire the early-bird rate. Only 100 participants will be accommodated. The slot is secured only after payment has been made.

Registration Process: To register, please follow the steps below:

1. Payment. Kindly pay the registration fee FIRST. Please deposit your payment to the following account details:
 Bank: Land Bank of the Philippines
 Branch: UPLB
 Account Name: UPLB Foundation Inc
 Account Number: 1892 1003 29
 Please use ONE DEPOSIT SLIP PER PARTICIPANT. After payment, please write your name and school on the deposit slip and keep it as proof of payment.
2. Registration Form. Go to <<http://bit.ly/mathtex2019>>. Upon filling-out the online registration form, you are required to indicate some personal information, shirt size (please refer to the chart below) and upload a CLEAR photo of your deposit slip.

3. Confirmation of Slot. You will receive a text message confirming your registration. Cancellation of slot will not be allowed. However, a registered participant can transfer his/her slot to a colleague upon request to the Organizers.

Attendance: Certificates will be issued only to those who completed the three-day training and submitted all required break-out exercises.

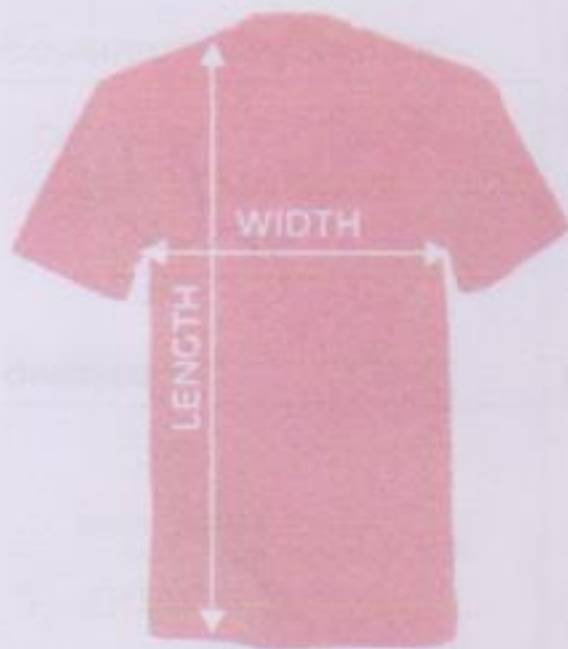
SCHEDULE OF ACTIVITIES

	TIME	ACTIVITIES
DAY 1 27 April 2019 Saturday	7:00 - 8:00	Registration
	8:00 - 9:00	Opening Program
	9:00 - 10:00	Pre-Test
	10:00 - 10:15	Break
	10:15 - 11:45	Lecture 1: Limits and Continuity Definition of Limit of a Function <i>Lecturer: Prof. Rolando G. Panopio</i>
	11:45 - 12:45	Lunch Break
	12:45 - 2:15	Lecture 1: Limits and Continuity Limits Involving Infinities <i>Lecturer: Prof. Rolando G. Panopio</i>
	2:15 - 2:30	Break
	2:30 - 5:30	Break-out Session 1
DAY 2 28 April 2019 Sunday	8:00 - 10:00	Lecture 1: Limits and Continuity Continuity <i>Lecturer: Prof. Rolando G. Panopio</i>
	10:00 - 10:15	Break
	10:15 - 12:15	Break-out Session 2
	12:15 - 1:00	Lunch Break
	1:00 - 2:30	Lecture 2: Derivatives Definition of Derivative of a Function Implicit Differentiation <i>Lecturer: Prof. Lester Charles A. Umali</i>
	2:30 - 3:00	Break
	3:00 - 5:00	Break-out Session 3
DAY 3 29 April 2019 Monday	8:00 - 11:00	Lecture 3: Integrals Definition of Definite Integral Area of a Plane Region <i>Lecturer: Prof. Genaro A. Cuaresma</i>
	11:00 - 1:00	FREE TIME* <i>Packed Lunch will be served</i>
	1:00 - 4:00	Break-out Session 4 <i>Snacks will be served during this session</i>
	4:00 - 5:30	Closing Program

*The Organizers prepared a tour around the UPLB Campus for interested participants. Please register if you want to join. Those who will opt not to join can tour UPLB/ Los Baños on their own.

18111821
11:13 AM

SOUVENIR SHIRT



Softex: Round Neck

SIZE CHART

SIZE	XXS	XS	S	M	L	XL	2XL	3XL
Width	17"	18"	19"	20"	21"	22"	23"	24"
Length	25"	26"	27"	28"	29"	30"	31"	32"

theSFE.com

LIST OF ACCOMMODATIONS

INSIDE UPLB		
	Contact Info	Room Daily Rates
SEARCA Residence Hotel UPLB, near the Freedom Park	(049) 536-2276 (049) 536-2236 (049) 536-2396 facilities@searca.org	Deluxe Rooms (air-conditioned, w/ TV and private bathrooms) <ul style="list-style-type: none"> • PhP 2,000/night (max of 3 person) • Additional person: PhP 500/night Economy Rooms (air-conditioned, w/ TV and common bathrooms) <ul style="list-style-type: none"> • PhP 1,200/night (max of 3 person) • Additional person: PhP 500/night
Contilu Bed and Breakfast UPLB Faculty Village, near the Main Library	0917-540-5721	Large Rooms <ul style="list-style-type: none"> • 14-person, 10-person, 6-person rooms • PhP 350/person • With complementary breakfast

OBDULIA SISON HALL UPLB, near the Freedom Park	(049) 536-2286	Triple Rooms • PhP 1,250/night Double Rooms • PhP 1,100/night
OUTSIDE UPLB		
Anest Tower Grove, beside Los Banos Doctor's Hospital (3 to 5-min ride from UPLB)	(049) 536-2049 (049) 536-0065 anest.tower@gmail.com	Rooms with aircon, TV, hot/cold bath, wifi • Single PhP 1,650/night • Double PhP 1,950/night • Triple PhP 2,250/night Executive Suite (3pax/room) • PhP 3,000/night
6708 Country Inn Barangay San Antonio, Los Banos (5 to 10-min ride from UPLB)	(049) 536-8734 0927-677-7918	Double Occupancy • PhP 1,999 to PhP 2,285/night • With complementary breakfast, internet, hot and cold water Triple Sharing • PhP 2,420/night • With complementary breakfast, internet, hot and cold water
Trace Suites Grove, beside Robinson's Place Los Banos (5-min ride from UPLB)	(049) 536-1780	Deluxe (2 persons/room) • PhP 4428/room/night Superior (2 persons/room) • PhP 3690/room/night Family room (3 persons/room), • PhP 4,920/room/night, an additional fee will be charged for exceeding persons
Centro Residences	(049) 310-0930 (049) 544-6649 0905-185-8624 (Ms. Dories) centtroresidences@gmail.com www.centtroresidences.com.ph	Standard (2 persons/room) • PhP 4,370/room/night • 1 king-sized bed Triple Sharing (3 persons/room) • PhP 4,736/room/night • 3 single beds Dorm (3 persons/room) (no TV) • PhP 4,370/room/night • 3 single beds
Vlounge Residences 9480 Lopez Avenue, Brgy. Batong Malake	0935-584-4508 0928-500-0900 (049) 536-0336	Room (2 persons/room) • PhP 1,400/room/night, an additional fee of PhP 700/head will be charged for exceeding persons • With PhP 2,000 security deposit and to be claimed upon checkout

The above-listed prices are subject to changes. Participants are advised to arrange their own accommodation reservations ahead of time.