

RECEIVED
DIVISION OFFICE
BAGUIO CITY
FEB 08 2019



SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS
College of Science, University of the Philippines Baguio
Governor Pack Road, 2600 Baguio City
Tel. No.: (074) 442-7231; Fax No.: (074) 444-3128
Email: sinsm.upbaguio@up.edu.ph



28 January 2019

DR. MAY B. ECLAR, CESO V
Officer-In-Charge
Office of the Regional Director
Department of Education – Cordillera Administrative Region

RECEIVED
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FEB 07 2019
DEPED-CAR

DEAR DR. ECLAR:

Greetings!

We are pleased to inform you that the College of Science, University of the Philippines Baguio will be undertaking its 25th Summer Institute in the Natural Sciences and Mathematics (SINSM) with the theme "Updating Senior High School Science and Mathematics Education: Content and Competency" at the University of the Philippines Baguio on 25-27 April 2019.

The SINSM is an annual extension service of the College of Science. Since 1990, we had trained and updated secondary and tertiary teachers on the latest development in theory, applications and pedagogy, as well as refresher courses in the basic concepts in the fields of Biology, Mathematics, Computer Science, Physics, Chemistry, Geology, and recently in Sports Science. Our service is inspired by the very objectives of the Department of Education in its desire to establish and maintain complete, adequate, and integrated system of basic education relevant to the goals of national development through the conduct of lectures and seminar workshops related to these fields.

In connection to this, we are humbly requesting from your good office an advisory regarding this activity. We have attached a copy of the flyer for the details of our seminar/workshop and program of activities for your kind perusal.

Thank you very much in anticipation of your favorable action and continued support to these endeavors. Details are posted in this website: <https://sites.google.com/up.edu.ph/sinsm2019> or email us at sinsm.upbaguio@up.edu.ph for inquiries.

Respectfully,

PROF. REYMART S. LAGUNERO
Chairperson

Noted:

PROF. DYMPHNA N. JAVIER, Ph.D.
Dean

PROF. RAYMUNDO D. ROVILLOS, Ph.D.
Chancellor

	Republic of the Philippines DEPARTMENT OF EDUCATION CORDILLERA ADMINISTRATIVE REGION Wangal, La Trinidad, Benguet	
ADVISORY		
Schools Division Superintendents All Divisions		February 7, 2019
For information and immediate action.		
		BETTINA DAYTEC - AQUINO Assistant Regional Director

To: All School Administrators, Principals & Teachers In-Charge (Elementary & Secondary)

FOR YOUR INFORMATION & APPROPRIATE ACTION

FEDERIGO P. MARTIN, Ed.D, CESO VI
Schools Division Superintendent



SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS

College of Science, University of the Philippines Baguio

Governor Pack Road, 2600 Baguio City

Tel. No. (074) 442-7231; Fax No.: (074) 444-3128

Email: sinsm.upbaguio@up.edu.ph



23 January 2019

THE PRINCIPAL/OFFICER-IN-CHARGE

DEAR MA'AM/SIR:

Greetings of service!

We are pleased to invite you to join the **25th Summer Institute in the Natural Sciences and Mathematics (SINSM)** of the **College of Science, University of the Philippines Baguio** with the theme **"Updating Senior High School Science and Mathematics Education: Content and Competency"** at the University of the Philippines Baguio campus on 25-27 April 2019.

The **Summer Institute in the Natural Sciences and Mathematics (SINSM)** is an annual extension service of the College that seeks to offer venues by which educators in the Sciences and Mathematics in the Cordillera region, as well as nearby areas, are updated on current issues in these fields. Since 1990, the SINSM has trained and updated secondary and tertiary teachers on the latest developments in theory, applications and pedagogy, as well as refresher courses in the basic concepts in the fields of Biology, Mathematics, Computer Science, Physics, Chemistry, and Geology. Our services are inspired by the very objectives of the Commission on Higher Education (CHED) in its desire to inculcate academic excellence in the teaching of Science and Mathematics-related degree programs by strongly encouraging the conduct of lectures and seminar workshops that promote interest in and awareness of developments in the basic and advanced Sciences and Mathematics, together with the Department of Education's objectives to establish and maintain a complete, adequate, and integrated system of basic education relevant to the goals of national development.

Listed below are the seminar-workshops that will be offered by the College in this year's SINSM.

EVENT	SUBTHEME/TOPIC	EARLY BIRD REGISTRATION	ON-SITE REGISTRATION
Department of Biology	Bringing Botany into the Fore	P2,200	P2,500
Department of Physical Sciences	Upgrading physical science teaching and research in Senior High School	P2,200	P2,500
Department of Mathematics and Computer Science	Strengthening Senior High School and Tertiary Mathematics Instruction	P2,500 (regular) P2,400 (MSP) P1,500 (Student)	P3,000 (regular) P2,700 (MSP) P2,000 (Student)

Payment thru bank deposit (UPCB Educational Foundation, Inc. DBP Baguio Current Account 0510-004420-030) must be received by **25 March 2019** to avail of early bird registration. A copy of the bank transaction receipts should be sent to: sinsm.upbaguio@up.edu.ph. All registered participants are entitled to have seminar kit, lunch and am/pm snacks.

We are requesting your good office to disseminate this information to your constituents as well and send them to participate. Thank you very much in anticipation of your favorable action and continuous support to these endeavors. Details are posted in our website: <https://sites.google.com/up.edu.ph/sinsm2019> or email us at sinsm.upbaguio@up.edu.ph for inquiries and reservations.

Respectfully yours,

PROF. REYMART S. LAGUNERO
Chairperson

Noted:

PROF. DYPHNA N. JAVIER, Ph.D.
Dean

PROF. RAYMUNDO D. ROVILLOS, Ph.D.
Chancellor

ADVISORY

CHED, Enhancement and DepEd Advisory regarding 2500 JAFM shall be posted and can be downloaded from our website at <http://sites.google.com/up.edu.ph/sam2019>

REGISTRATION

	Early Bird	On-site
Math & ComSci	P2,500	P3,000
MS/MTech	P2,400	P2,700
PhD	P1,500	P2,000
Biology	P2,200	P2,500
Physical Sciences	P2,200	P2,500

REMINDERS

1. For registration, please refer to our website at <http://sites.google.com/up.edu.ph/sam2019> and follow the link.

2. The deadline for registration is on 15th February 2019.

3. For the registration fee, please refer to the registration form. The fee is non-refundable. The fee is subject to change without prior notice.

4. A receipt will be issued to the registrant upon payment of the fee.

5. All registrants must bring their own laptop and internet access.

6. All registrants must bring their own food and water.

7. All registrants must bring their own transportation.

8. All registrants must bring their own identification card.

9. All registrants must bring their own registration fee.

10. All registrants must bring their own registration form.

CONTACT INFORMATION

For more inquiries and reservation of slots, please contact:

PROF. REYMARK S. LAGUNERO
Chairperson
+63917-168-9252
rsilagunero@up.edu.ph

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

PROF. ANTHONY M. PASION
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DEPARTMENT OF PHYSICAL SCIENCES

MS. ROSELLE T. NGALOY
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PROF. JOHN PAUL A. MENDOZA

DEPARTMENT OF CHEMISTRY

DEPARTMENT OF BIOLOGY

DEPARTMENT OF ENVIRONMENTAL SCIENCE

SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS

College of Science
University of the Philippines Baguio



25th SINSM THEME:
"Updating Senior High School
Science and Mathematics
Education: Content and
Competency"

University of the Philippines Baguio

DEPARTMENT OF PHYSICAL SCIENCES

With a theme "Upgrading physical science teaching and learning in Senior High School", the Department of Physical Sciences will present a series of lectures with plenary talks and parallel sessions for the disciplines of Physics, Chemistry, and Earth Science/Geology.

Plenary sessions include presentations on (1) how physics, chemistry, and geology are interconnected, (2) strategies in teaching physical sciences in SHS, (3) research proposal writing, and (4) research opportunities for SHS. These talks are to be delivered by invited and local speakers.

In parallel sessions, the discipline of physics will focus on strengthening the foundation of our senior high school educators in the topics of translational and rotational kinematics. With these sessions, we aim to widen the scope and focus on how motion, force, and energy are related. Corresponding workshops on experiments and graphical techniques are also included.

For the Chemistry discipline, the parallel sessions will highlight on the theories of matter, electronic configuration and teaching methods in Senior High School Chemistry. Actual laboratory works, including Flame Test and blended learning activities will be prepared to provide hands-on experience to the participants. With all these, we target to reinforce the skills of Senior High School Teachers on the fundamental concepts and broaden their knowledge in the field of Chemistry.

Sessions in Earth Science/Geology will tackle basic knowledge in rock formation, teaching aids and teaching strategies. A field viewing is also included. This is to reinforce and strengthen competencies of our educators in Earth Science.

For more inquiries please contact:
Ms. Roselle T. Ngalay
Contact #: 0945-208-6528
Email address: rtingalay@up.edu.ph

Mr. Reymark C. Ereje
Contact #: 0945-435-2356
Email address: rcereje@up.edu.ph

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

The Department of Mathematics and Computer Science adopts the theme "Strengthening Senior High School and Tertiary Mathematics Instruction" for the 25th SINSM.

The department will offer four tracks of lectures from which participants can choose from. The tracks include Pre-Calculus and Basic Calculus, General Mathematics and Statistics, Advanced Calculus, and Website Designing. Each track will focus on solidifying and enhancing the mathematical knowledge and teaching strategy of each participant on the specified subject through a series of intensive lectures. At the end of this training program, each participant is expected to demonstrate correct understanding of the fundamental concepts of his/her chosen track and exhibit improved teaching capability and instructional techniques. The department will also conduct two plenary sessions entitled "Blended Learning" and "Creative Mathematics Teaching, Anyone?".

For more inquiries please contact:
Prof. Anthony M. Pasion
Contact #: 0956-276-7286
Email address: ampasion@up.edu.ph

Mr. Jhunaspaul T. Viernes
Contact #: 0917-459-7652
Email address: jviernes@up.edu.ph

DEPARTMENT OF BIOLOGY

In the 25th SINSM, the Department of Biology adopts the subtheme "Bringing Botany into the Fore".

Having the high school curriculum revised, further strengthening and fortifying concepts in Biology is deemed salutary. This year, the subtheme highlights on the discipline of plant sciences. Salient topics and crucial applications will be given much emphasis during the three-day stretch of the program. Specifically, talks and activities will center on identification of plants using spot characters and dichotomous keys, free-hand sectioning and staining techniques, and an introductory lecture on invasive alien species.

It is anticipated that by the end of the program, Botanical concepts be underscored and brought forward to ultimately gear towards a more encompassing and more significant understanding in Biology.

For more inquiries, please contact:
Mr. Jenro Rey R. Pagaduan
Contact No: 0995-985-4290
Email address: jrpagaduan1@up.edu.ph

Mr. Jerome Monroe P. Bernardino
Contact No. 0928-485-7286
Email Address: jpb Bernardino1@up.edu.ph

HUMAN KINETICS PROGRAM

The Human Kinetics Program will conduct a separate training to be scheduled this year.

For inquiries, please contact:
Ms. Vi-Amor R. Dayrit
Contact No.: 0908-975-8829
Email address: vrdayrit@up.edu.ph

Ms. Jessica C. Talangchey
Contact No.: 0906-466-8194
Email Address: jctalangchey@up.edu.ph



SUMMER INSTITUTE IN THE NATURAL
SCIENCES AND MATHEMATICS

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Department of Mathematics and Computer Science
 College of Science
 University of the Philippines
 Baguio City

Department Theme: "Strengthening Senior High School and Tertiary Mathematics Instruction"

Schedule of Program for the Mathematics and Computer Science Cluster

Day	Time	LECTURES			
Thursday	10:30 – 12:00 NN	Plenary 1 (Sarmiento Hall)			
	12:00 – 1:00 PM	Lunch break			
	1:30 – 3:00 PM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
	3:00 – 3:30 PM	PM Snacks			
Friday	3:30 – 5:00 PM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
	8:30 – 10:00 AM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
	10:00 – 10:30 AM	AM Snacks			
	10:30 – 12:00 NN	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
Saturday	12:00 – 12:45 PM	Lunch break			
	12:45 – 1:30 PM	MSF (CAR, Region I, II, III) GENERAL ASSEMBLY			
	1:30 – 3:00 PM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	ELECTION Website Designing (KA 301)
	3:00 – 3:30 PM	PM Snacks			
	3:30 – 5:00 PM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
Saturday	8:30 – 10:00 AM	Pre-Calculus and Basic Calculus (KA 402)	General Mathematics and Statistics (IB 104)	Advanced Calculus (IB 105)	Website Designing (KA 301)
	10:00 – 10:15 AM	AM Snack			
	10:15 – 11:00 AM	Photo Ops (Oblation Grounds)			
	11:00 – 12:30 PM	Plenary 2 (Sarmiento Hall)			
	12:30 – 1:30 PM	Lunch Break			
	1:30 – 2:00 PM	Special Lecture 1 (Sarmiento Hall)			
	2:30 – 3:00 PM	Special Lecture 2 (Sarmiento Hall)			
	2:30 – 3:00 PM	Special Lecture 3 (Sarmiento Hall)			
3:00 – 4:00 PM	PM Snacks / Awarding of Certificates				
END					

TRACKS:

Track A (Pre-Calculus and Basic Calculus)
 Track B (General Mathematics and Statistics)

Track C (Calculus)
 Track D (Website Designing)

Schedule of Program for the Mathematics and Computer Science Cluster

TRACK A (PRE-CALCULUS and BASIC CALCULUS)

Day	Time	LECTURES
Thursday	10:30 – 12:00 PM	Plenary 1 (Sarmiento Hall)
	12:00 – 1:00 PM	Lunch break
	1:30 – 3:00 PM	Lecture 1 (KA 402)
	3:00 – 3:30 PM	PM Snacks
	3:30 – 5:00 PM	Lecture 2 (KA 402)
Friday	8:30 – 10:00 AM	Lecture 3 (KA 402)
	10:00 – 10:30 AM	AM Snacks
	10:30 – 12:00 PM	Lecture 4 (KA 402)
	12:00 – 12:45 PM	Lunch break
	12:45 – 1:30 PM	MSP (CAR, Region I, II, III) GENERAL ASSEMBLY - ELECTION
	1:30 – 3:00 PM	Lecture 5 (KA 402)
	3:00 – 3:30 PM	PM Snacks
	3:30 – 5:00 PM	Lecture 6 (KA 402)
Saturday	8:30 – 10:00 AM	Lecture 7 (KA 402)
	10:00 – 10:15 AM	AM Snack
	10:15 – 11:00 AM	Photo Ops (Oblation Grounds)
	11:00 – 12:30 PM	Plenary 2 (Sarmiento Hall)
	12:30 – 1:30 PM	Lunch Break
	1:30 – 2:00 PM	Special Lecture 1 (Sarmiento Hall)
	2:30 – 3:00 PM	Special Lecture 2 (Sarmiento Hall)
	2:30 – 3:00 PM	Special Lecture 3 (Sarmiento Hall)
	3:00 – 4:00 PM	PM Snacks / Awarding of Certificates
	END	

Topics:

1. Analytic Geometry
2. Series and Mathematical Induction
3. Trigonometry
4. Limits and Continuity
5. Derivatives
6. Integration

Lecturers:

1. Prof. Gervy Marie Angeles
2. Prof. Juancho Collera
3. Prof. Priscilla Macansantos
4. Prof. Anthony Pasion

Plenary Speakers:

1. **Blended Learning**
By Prof. Joel Addawe
2. **Creative Math Teaching, Anyone?**
By Prof. Alleli Ester Dela Cruz

Facilitator:

1. Mr. Kimben Gonzales

REMINDER: Due to limitation of space, please remain in the tracks assigned to you

Schedule of Program for the Mathematics and Computer Science Cluster

TRACK B (GEN. MATHEMATICS and STATISTICS)

Day	Time	LECTURES
Thursday	10:30 - 12:00	Plenary 1 (Sarmiento Hall)
	12:00 - 1:00	Lunch break
	1:30 - 3:00	Lecture 1 (IB 104)
	3:00 - 3:30	PM Snacks
	3:30 - 5:00	Lecture 2 (IB 104)
	Friday	8:30 - 10:00
	10:00 - 10:30	AM Snacks
	10:30 - 12:00	Lecture 4 (IB 104)
	12:00 - 12:45	Lunch break
	12:45 - 1:30	M.E.F. (CAR, Region I, II, III) GENERAL ASSEMBLY - ELECTION
	1:30 - 3:00	Lecture 5 (IB 104)
	3:00 - 3:30	PM Snacks
	3:30 - 5:00	Lecture 6 (IB 104)
Saturday	8:30 - 10:00	Lecture 7 (IB 104)
	10:00 - 10:15	AM Snack
	10:15 - 11:00	Photo Ops (Oblation Grounds)
	11:00 - 12:30	Plenary 2 (Sarmiento Hall)
	12:30 - 1:30	Lunch Break
	1:30 - 2:00	Special Lecture 1 (Sarmiento Hall)
	2:30 - 3:00	Special Lecture 2 (Sarmiento Hall)
	2:30 - 3:00	Special Lecture 3 (Sarmiento Hall)
	3:00 - 4:00	PM Snacks / Awarding of Certificates

END

Topics:

1. Functions and Their Graphs
2. Basic Business Mathematics
3. Logic
4. Statistics and Probability

Lecturers:

1. Prof. Rizavel Addawe
2. Prof. Andrei Domogo
3. Prof. Joy Ascaño

Plenary Speakers:

1. **Blended Learning**
By Prof. Joel Addawe
2. **Creative Math Teaching - Anyone?**
By Prof. Alleli Ester E. Ascaño

Facilitator:

1. Ms. Olive Cawiding

REMINDER: Due to limitation of space, please remain in the tracks assigned to you

Schedule of Program for the Mathematics and Computer Science Cluster

TRACK C (ADVANCED CALCULUS)

Day	Time	LECTURES
Thursday	10:30 - 12:00	Plenary 1 (Sarmiento Hall)
	12:00 - 1:00	Lunch break
	1:30 - 3:00	Lecture 1 (IB 105)
	3:00 - 3:30	PM Snacks
	3:30 - 5:00	Lecture 2 (IB 105)
Friday	8:30 - 10:00	Lecture 3 (IB 105)
	10:00 - 10:30	AM Snacks
	10:30 - 12:00	Lecture 4 (IB 105)
	12:00 - 12:30	Lunch break
	12:45 - 1:30	VEF (CAR, Region I, II, III) GENERAL ASSEMBLY - ELECTION
	1:30 - 3:00	Lecture 5 (IB 105)
	3:00 - 3:30	PM Snacks
	3:30 - 5:00	Lecture 6 (IB 105)
Saturday	8:30 - 10:00	Lecture 7 (IB 105)
	10:00 - 10:15	AM Snack
	10:15 - 11:00	Photo Ops (Oblation Grounds)
	11:00 - 12:30	Plenary 2 (Sarmiento Hall)
	12:30 - 1:30	Lunch Break
	1:30 - 2:00	Special Lecture 1 (Sarmiento Hall)
	2:30 - 3:00	Special Lecture 2 (Sarmiento Hall)
	2:30 - 3:00	Special Lecture 3 (Sarmiento Hall)
3:00 - 4:00	PM Snacks / Awarding of Certificates	
		END

Topics:

5. Polynomial Approximation, Sequences and Infinite Series
6. Area of a Plane Region, Volume of Solids and Arc Length
7. Differential Calculus, Applications of More Than One Variable

Lecturers:

1. Prof. Jerico Bacani
2. Prof. Edna Gueco
3. Prof. Gilbert Peralta

Plenary Speakers:

1. **Blended Learning**
By Prof. Joel Addawad
2. **Creative Math Teaching** - Anyone?
By Prof. Alleli Ester

Facilitator:

1. Mr. Jhunus Paul Viernes

REMINDER: Due to limitation of space, please remain in the tracks assigned to you

Schedule of Program for the Mathematics and Computer Science Cluster

TRACK D (WEBSITE DESIGNING)

Day	Time	LECTURES
Thursday	10:30 – 12:00	Plenary 1 (Sarmiento Hall)
	12:00 – 1:00	Lunch break
	1:30 – 3:00	Lecture 1 (KA 301)
	3:00 – 3:30	PM Snacks
	3:30 – 5:00	Lecture 2 (KA 301)
Friday	8:30 – 10:00	Lecture 3 (KA 301)
	10:00 – 10:30	AM Snacks
	10:30 – 12:00	Lecture 4 (KA 301)
	12:00 – 12:45	Lunch break
	12:45 – 1:30	M: F (CAR Region I, II, III) GENERAL ASSEMBLY - ELECTION
	1:30 – 3:00	Lecture 5 (KA 301)
	3:00 – 3:30	PM Snacks
	3:30 – 5:00	Lecture 6 (KA 301)
Saturday	8:30 – 10:00	Lecture 7 (KA 301)
	10:00 – 10:15	AM Snack
	10:15 – 11:00	Photo Ops (Oblation Grounds)
	11:00 – 12:00	Plenary 2 (Sarmiento Hall)
	12:30 – 1:30	Lunch Break
	1:30 – 2:00	Special Lecture 1 (Sarmiento Hall)
	2:30 – 3:00	Special Lecture 2 (Sarmiento Hall)
	2:30 – 3:00	Special Lecture 3 (Sarmiento Hall)
	3:00 – 4:00	PM Snacks / Awarding of Certificates

END

Topics:

1. HTML Basics: Links, Tables, Colors
2. Cascading Style Sheets
3. Client Side Scripting: Script with CSS
4. Client Side Scripting: Script with Forms
5. Server-side scripting
6. Introduction to Moodle
7. Webserver setup

By Prof. Alleli Ester Domingo

Lecturers:

1. Prof. Lee Javellana

Facilitator:

1. Ms. Ashlyn Kim Balangcod

Plenary Speakers:

1. **Blended Learning**
By Prof. Joel Addaw
2. **Creative Math Teaching** Anyong?

REMINDER. Due to limitation of space, please remain in the tracks assigned to you

Registration Details

Early Bird

Php 2,500.00
(regular)

Php 2,400.00
(for MSP Members)

Php 1,500.00
(for Students)

Pay on or before
25 March 2019

Walk-In

Php 3,000.00

Php 2,700.00
(for MSP Members)

Php 2,000.00
(for students)

Participants who are availing the early bird registration are **required** to do online registration by visiting the link:

<http://sites.google.com/up.edu.ph/sinism2019/registration>

Payment can be made through bank deposit* or personal payment**. The payment must be received on or before **25 March 2019**. A copy of the bank deposit receipts must be sent to sinism.upbaquio@up.edu.ph. Participants who will register early will be given priority in choosing and filling their respective tracks.

* Bank Name: UPCB Educational Foundation, Inc.

** Current Account Number: 0510-004420-030

Faculty In-charge: Prof. Reymart S. Lagunero
Department of Mathematics and Computer Science
UP Baguio

Participants in tracks of walk-in participants will be assigned to them by the department depending on the number of slots left in each track.



Department of Physics Sciences Program
Summer Institute in the Natural Sciences and Mathematics 2019

Topic: "Improving science teaching and research in Senior High School"

	PHYSICS	CHEMISTRY	EARTH SCIENCE/ GEOLOGY
DAY 1			
8:00-9:00	REGISTRATION		
9:00-10:00	OPENING PROGRAM		
10:00-10:30	Snacks		
10:30-12:00	Plenary: "Stardust or Nuclear Debris? (The Origin of the Universe)" Dr. Myrna Rodriguez		
12:00-1:00	Lunch Break		
1:00-2:30	Newton's and Kepler's Laws Prof. Giovanni Capri	Theories of Matter and the Electronic Structure: A Walk through History Prof. Ofelia Giron	POGI (Places of Geologic Interest) Points: An introduction to the geology of famous rock formations Prof. Dymphna Javier
2:30-3:00	Snacks		
3:00-4:30	Workshop: Exploring Transistors Prof. Cristobal Tesdl	Workshop: Dry Lab: Electronic Configuration of Representative Elements Wet Lab: Flame Test of Common Elements Prof. Ofelia Giron and Mr. Reymark Ereje	Guided Field Viewing Prof. Dymphna Javier
DAY 2			
8:30-10:00	Plenary: "Improving senior high school physical science courses: approaches and strategies" Ms. Bhazel Anne Pelicano		
10:00-10:30	Snacks		
10:30-12:00	Workshop: Strategies for Blended Learning in Senior High School Chemistry Ms. Bhazel Anne Pelicano and Ms. Reymundo Galor	Blended Learning in Senior High School Chemistry and Earth Science Dr. Vivian A. Topor	
12:00-1:00	Lunch Break		
1:00-2:30	Workshop: Engaging exercises for teaching Earth Sciences	Workshop on teaching-learning methodologies in Chemistry Prof. Ofelia Giron and Mr. Reymark Ereje	Engaging exercises for teaching Earth Sciences Prof. Dymphna Javier
2:30-3:00	Snacks		
3:00-4:30	Workshop: Engaging exercises for teaching Earth Sciences		

DAY 3	
8:30-9:30	Plenary: Research Writing Prof. Alipio Garcia
10:00-10:30	Snack
10:30-11:30	Workshop: Research Writing Prof. Alipio Garcia
12:00-12:30	Lunch Break
1:00-1:30	Day Research opportunities in Senior High School Invited speaker from DOST CAR
2:30-3:00	Snacks
3:00-3:30	Closing Program



DEPARTMENT OF BIOLOGY
 College of Science
 University of the Philippines
 Diliman, Quezon City

SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS

TITLE: <i>Bringing Botany into the Fore</i>		
Day 1		
7:30-9:00	Registration	ComSci Lab
9:00-10:00	Opening Program	Oblation Ground
10:00-10:30	Breakfast	IB 105
10:30-10:45	Introduction to Biology SINSM 2018	CS-AVR
10:45-11:45	Overview of what plants are	CS-AVR
11:45-12:00	Breakfast	CS-AVR
12:00-1:00	Lunch	IB 105
1:00-5:00	Laboratory activity 1: <i>Microsectioning techniques and planting procedure</i>	KA 203
Day 2		
8:00-8:45	Review of Dichotomous Key in Plant Identification	KA 203
8:45-9:30	Review of Spot Characters for Rapid Plant Identification	KA 203
9:30-12:00	Laboratory activity 2: <i>Plant Identification using Dichotomous</i>	KA 202
12:00-1:00	Lunch	IB 105
1:00-5:00	Laboratory activity 1: <i>Plant Identification using spot characters</i>	Botanical Garden
Day 3		
8:00-9:00	Introduction to Invasive Alien Species	CS-AVR
9:00-10:30	Prof. Felia M. Austria Lecture	CS-AVR
10:30-11:00	Breakfast	IB 105
11:00-12:00	Opening Program	CS-AVR
12:00-1:00	Lunch	IB 105

END

Registration Details

Early Bird

Php 2,500.00
(regular)

Php 2,400.00
(for MSP Members)

Php 1,500.00
(for Students)

Pay online before
25 March 2019

Walk-In

Php 3,000.00

Php 2,700.00
(for MSP Members)

Php 2,000.00
(for students)

Participants who are availing the early bird registration are **required** to do online registration by visiting the link

<http://sites.google.com/up.edu.ph/sinism2019/registration>

Payment can be made through bank deposit* or personal payment**. The payment must be received on or before **25 March 2019**. A copy of the bank deposit receipts must be sent to sinism.upbaquio@up.edu.ph. Participants who will register early will be given priority in choosing and enrolling in the respective tracks.

*Bank Name: UPCB Educational Foundation, Inc.

**Current Account Number: 0510-004420-030

Contact: Prof. Reyman S. Lagunero
Department of Mathematics and Computer Science
lagunero

Walk-in participants will be assigned to them by the department depending on the number of slots left in each track.



Department of Physics Sciences Program
Summer Institute for Natural Sciences and Mathematics 2019

Expanding the frontiers of teaching and research in Senior High School

	PHYSICS	CHEMISTRY	EARTH SCIENCE/ GEOLOGY
		DAY 1	
8:00-		REGISTRATION	
9:00-		OPENING PROGRAM	
10:00-		Snacks	
10:30-	Plenary	Statement on "Stardust or Nuclear Debris"? (The Origin of the Universe) Dr. Myrna Rodriguez	
12:00-		Lunch Break	
1:00-	Newton's Prisms Kinematics Prof. Greyson	Theories of Matter and the Electronic Structure: A Walk through History Prof. Ofelia Giron	POGI (Places of Geologic Interest) Points: An introduction to the geology of famous rock formations Prof. Dymphna Javier
2:30-		Snacks	
3:00-	Workshop: Experimental Prisms Kinematics Prof. Giron	Workshop: Dry Lab: Electronic Configuration of Representative Elements Wet Lab: Flame Test of Common Elements Prof. Ofelia Giron and Mr. Reymark Ereje	Guided Field Viewing Prof. Dymphna Javier
		DAY 2	
8:30-	Faculty	Workshop on teaching senior high school physical science courses: approaches and strategies Ms. Bhazel Anne Pelecano	
10:00-		Snacks	
10:30-	Workshop: Strategies Senior High School Physics Dr. Vivian A. Topor	Blended Learning in Senior High School Chemistry and Earth Science Dr. Vivian A. Topor	
12:00-		Lunch Break	
1:00-	Physics	Workshop on teaching- learning methodologies in Chemistry Prof. Ofelia Giron and Mr. Reymark Ereje	Engaging exercises for teaching Earth Sciences Prof. Dymphna Javier
2:30-		Snacks	
3:00-	Workshop: Experimental Physics Prof. Giron	Guided Field Viewing Prof. Dymphna Javier	

DAY 3	
8:30-10:00	Primary Research Writing Prof. Alipio Garcia
10:00-10:30	Snack
10:30-12:00	Workshop Research Writing Prof. Alipio Garcia
12:00-1:00	Lunch Break
1:00-2:30	Research opportunities in Senior High School Invited speaker from DOST-CAR
2:30-3:00	Snacks
3:00-3:30	Closing Program



DEPARTMENT OF BIOLOGY
 College of Science
 University of the Philippines
 Baguio City

SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS

Dr. M. Br. <i>Bringing Botany into the Fore</i>		
Day 1		
7:30-9:00	Registration	ComSci Lab
9:00-10:00	Opening Program	Oblation Ground
10:00-10:30	Registration	IB 105
10:30-10:45	Introduction to Biology SINSM 2018	CS-AVR
10:45-11:45	Why do we study plants?	CS-AVR
11:45-12:00	Lunch	
12:00-1:00	Registration	IB 105
1:00-5:00	Workshop activity 1: Plant identification techniques and planting procedure	KA 203
Day 2		
8:00-8:45	Using a Dichotomous Key in Plant Identification	KA 203
8:45-9:30	Using Spot Characters for Rapid Plant Identification	KA 203
9:30-12:00	Workshop activity 2: Plant identification using Dichotomous	KA 202
12:00-1:00	Lunch	IB 105
1:00-5:00	Workshop 1: Plant identification using spot	Botanical Garden
Day 3		
8:00-9:00	Introduction to Invasive Alien Species	CS-AVR
9:00-10:30	Dr. Cecilia M. Austria and her life	CS-AVR
10:30-11:00	Lunch	IB 105
11:00-12:00	Registration	CS-AVR
12:00-1:00	Registration	IB 105

END