

Republic of the Philippines  
**Department of Education**  
NATIONAL CAPITAL REGION

DEPARTMENT OF EDUCATION  
RECORDS SECTION, DEPED NCR  
**RELEASED**

By: \_\_\_\_\_ Date: 10 MAR 2020

DNCR-F-ORD-038/01112019

Advisory No. 84, s. 2020  
March 5, 2020

In compliance with DepEd Order (DO) No. 8, s. 2013  
this Advisory is issued not for endorsement per DO 28, s. 2001.  
but for the information of DepEd officials,  
personnel/ staff as well as the concerned public.  
(Visit [www.deped.gov.ph](http://www.deped.gov.ph))

### Training Workshop

Summer Institute in the Natural Sciences and Mathematics (SINSM) will conduct a training workshop for teachers at the University of the Philippines, Baguio City on April 22-24, 2020.

The activity aims to reinforce pedagogy and research in science and mathematics through innovative approaches.

The target participants are senior high school and tertiary education teachers.

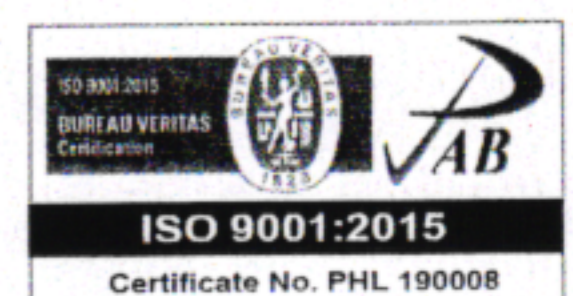
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Clmd/mgp



*A legacy as rich as excellence!*

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**SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS**

College of Science, University of the Philippines Baguio

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March 02, 2020

**DR. MALCOLM S. GARMA**

Regional Director

Department of Education – National Capital Region

**DEAR DR. GARMA:**

Greetings of peace!

Inspired by our goal to deliver relevant science and mathematics education in the country, we are again conducting a training workshop for teachers in the senior high school and tertiary education levels on April 22-24, 2020 at the University of the Philippines, Baguio. This academic year's theme is "**Upgrading Senior High School Science and Mathematics Education: Content and Competency Part 1.**" To further realize the theme, the general objective of the activity is to reinforce pedagogy and research in science and mathematics through innovative approaches. We are also an accredited CPD provider for professional teachers by the Professional Regulation Commission (PRC) with program accreditation code PTR 2019-296.

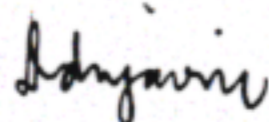
To give you a background, Summer Institute in the Natural Sciences and Mathematics (SINSM) is an annual extension service of the College of Science. Since 1990, we had trained and updated secondary and tertiary educators on the latest development in theory, applications and pedagogy, as well as refresher courses in the basic concepts in the fields of Biology, Mathematics, Computer Science, Physics, Chemistry, Geology, and recently in Sports Science through the conduct of lectures and seminar workshops related to these fields.

In connection to our incoming activity, we would once again humbly request for an advisory from your good office. Attached is a copy of our invitation brochure for your reference. Should you wish to know more about our activity, you may visit us at <http://sites.google.com/up.edu.ph/sinsm2020> or email us at [sinsm.upbaguio@up.edu.ph](mailto:sinsm.upbaguio@up.edu.ph). We thank you for continuously supporting our endeavor.

Sincerely,

  
**JENNIFER BANDA-O-ANTONIO**  
Chairperson, SINSM 2020

Noted:



**PROF. DYMPHNA N. JAVIER, Ph.D.**  
Dean, College of Science



# SINSM 2020 Secretariat

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# CONTACT US

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# Registration Details

	EARLY BIRD	ON-SITE
MATH AND COMPUTER SCIENCE	PHP 2,500	PHP 3,000
MSP MEMBER	PHP 2,400	PHP 2,700
STUDENT	PHP 1,500	PHP 2,000
BIOLOGY	PHP 3,500	PHP 4,000
PHYSICAL SCIENCES	PHP 2,500	PHP 3,000
HUMAN KINETICS PROGRAM	PHP 2,500	PHP 3,000

*For early bird registrants, you may deposit your registration payment at:*

**Bank Account Details: (TO BE POSTED ON THE SINSM WEBSITE)**

Transaction receipt must be scanned/photographed and sent to  
[sinsm.upbaguio.edu.ph](mailto:sinsm.upbaguio.edu.ph)

## REMINDER

The university adheres to the Green UP Campus Policy. With this, participants are advised to bring their own mugs or tumblers for coffee and water so as to reduce the waste generated in the activity. Mugs for rent will also be available in the venue.



COLLEGE OF SCIENCE  
UNIVERSITY OF THE PHILIPPINES BAGUIO

# 26th

# Summer Institute in the Natural Sciences and Mathematics (SINSM)

THEME:

*"Upgrading Senior High School Science and Mathematics Education Content and Competency (Part 1)"*

April 22-24, 2020

University of the Philippines Baguio



# DEPARTMENT THEMES

## ABOUT US

The **Summer Institute in the Natural Sciences and Mathematics (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 Commission on Higher Education (CHED) in its desire to inculcate academic excellence in the teaching of Science and Mathematics-allied 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 (DepEd) objectives to establish and maintain a complete, adequate, and integrated system of basic education relevant to the goals of national development.

## ABOUT THE THEME

This years theme is **"Upgrading Senior High School Science and Mathematics Education Content and Competency (Part 1)"** which aims to reinforce pedagogy and research in science and mathematics through innovative approaches.

## ACCREDITATION AND RECOGNITION

The Summer Institute in the Natural Sciences and Mathematics (SINSM) is an accredited CPD provider by the Professional Regulation Commission.

The conduct of the 26th SINSM is endorsed by the Department of Education (DepEd), the Commission on Higher Education (CHED), and the Philippine Association of State Universities and Colleges (PASUC).

Each department in the college adopted its own theme to support the general theme.

## DEPARTMENT OF BIOLOGY



In the 26th SINSM, the Department of Biology adopts the subtheme: **"On the Brink of Collapse: Multidimensional Analyses and Approaches to Disturbance Ecology."** By the end of the program, participants are expected to be acquainted with the basic theories, concepts, and methods in Disturbance Ecology. Specifically, lectures and activities will focus on the different fields of disturbance ecology relating to different scales and levels of organization. In addition, laboratory and field activities on methods and practical applications pertinent to disturbance ecology will complement the series of lectures. Lastly, the program will culminate in a research pitch by the participants, highlighting and consolidating their key learnings during the duration of the program. These activities are deemed to be of great relevance due to the continuing problem on environmental degradation and biodiversity loss. Furthermore, the program deems to emphasize the importance of science-based approaches and ecologically-guided principles and methodologies in addressing the most pressing environmental issues of today.

## HUMAN KINETICS PROGRAM



The Human Kinetics Program offers to equip participants of the 26th SINSM with the essential tools in enhancing their pedagogical and research skills in the multidisciplinary field of Human Movement Science. The materialization of this goal will be possible with the sub-theme: **"Enhancing Pedagogical Tools for the Physical Education Teachers and Exploring Research Areas in the Human Movement Science"** as a guide. Moreover, the various activities offered in the program such as Common Sports Injuries: Origins and Modern Treatments, The Multi-Disciplinary field of Human Movement Science: Re- Exploring the Discipline, Advances in Teaching Table Tennis, Poomsae: Teaching Taekwondo Forms for Beginners in a Classroom Setting, and Introducing Dance Sport to Non-dancers: A way to identifying talents in PE Class will be in consonance to the changing needs of learners in our modern time. It is expected that the attendees will gain additional knowledge in addressing certain differences experienced between theory and practice in the field of Physical Education. With this end in mind, the participants can be able to apply the skills learned from the training to their respective educational institutions.



## DEPARTMENT OF PHYSICAL SCIENCES

The Department of Physical Sciences composed of Chemistry, Geology, and Physics disciplines assumes the sub-theme - **"InterESTed: Innovative Teaching and Research Methods in the Sciences and Technology Education"** as a pathway towards the realization of the main theme of the 26th SINSM. The Chemistry discipline will focus on two main topics: Organic Chemistry - Esterification Reactions and Thermodynamics - Hess's Law. This undertaking includes lectures, dry lab, and wet lab activities aligned with the department's theme and the general theme as a whole. The Geology discipline will offer two main lectures entitled BABALA: Baha, Bulkan At "Landslides" and the NIGS-UPCAA Geology Museum, a supplementary learning environment of Earth Science for the new K to 12 Curriculum. Two main workshops will also be conducted: Workshop 1 is entitled Geologic Skills as Tools for Hazard and Risk Assessment and Workshop 2 is entitled Identifying hazards in your neighborhood: Google Earth and other geohazard websites. The Physics discipline will offer lectures and laboratory activities on Thermodynamics, Computational Physics, Atomic and Molecular Spectroscopy, and Relativity. The lectures and activities will be done in such a way that deeper content and new teaching methods will be acquired by the participants that will soon be transmitted to the learners when they go back to their respective classrooms. To further substantiate the lectures and laboratory activities, plenary sessions will be conducted on the first and last days. These sessions are entitled: Imperatives in CCADR, Research Writing and Scholarship Opportunities for High School Students by DOST-SEI, Research Conduct and Ethics.



## DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

The department will offer four tracks of lectures from which participants can choose from. The tracks include PreCalculus and Basic Calculus, General Mathematics and Statistics, Differential Equations and Basic Programming. 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 on Topological Data Analysis and Introduction to Statistical Modeling in R.