



Department of Education  
Region III  
**DIVISION OF ANGELES CITY**  
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**RELEASED**

**DIVISION ADVISORY**

No. 40, s. 2017


MAR 06 / 2017

By   
DepED Angeles City  
Division of City Schools

**To:** Heads of Public Elementary and Secondary Schools  
**From:** OIC-Assistant Schools Division Superintendent  
**Subject:** 23<sup>rd</sup> Summer Institute in the Natural Science and Mathematics of the University of the Philippines-Baguio  
**Date:** March 6, 2017

This is to inform all concerned that the College of Science of the University of the Philippines-Baguio will be holding its 23<sup>rd</sup> Summer Institute in the Natural Sciences and Mathematics on April 27-29, 2017 at the University of the Philippines-Baguio.

Attached is a letter from Prof. Alladin C. Jasmin, Chairperson, SINSM 2017 Committee, University of the Philippines, for reference and information.

  
**MARIA CELINA L. VEGA**  
Officer-in-Charge

Office of the Assistant Schools Division Superintendent



Republic of the Philippines  
**DEPARTMENT OF EDUCATION**  
**Region III-Central Luzon**

**D.M. Government Center, Maimpis, City of San Fernando, Pampanga**

Email: [region3@deped.gov.ph](mailto:region3@deped.gov.ph)  
Tel: (045) 455-2309 ✕ Fax: (045) 455-2312



DepED R.O. II

MAR 03 2017

**Advisory**

No. 80 s. 2017

To: Schools Division Superintendents

From: Regional Director

Subject: 23<sup>rd</sup> Summer Institute in the Natural Sciences and Mathematics of the University of the Philippines Baguio

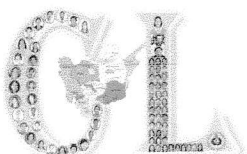
Date: March 1, 2017

This is to inform all concerned that the College of Science of the University of the Philippines Baguio will be holding its 23<sup>rd</sup> Summer Institute in the Natural Sciences and Mathematics on April 27-29, 2017 at the University of the Philippines Baguio.

Attached is a letter from Prof. Alladin C. Jasmin, Chairperson, SINSM 2017 Committee, University of the Philippines, for reference and information.

**MALCOLM S. GARMA, CESO V**  
Director III  
Officer-In-Charge  
Office of the Regional Director

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**SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS (SINSM)**

College of Science  
University of the Philippines  
Gov. Pack Road, Baguio City 2600 Philippines  
Tel. No.: (074)-442-7231; Fax No.: (074)-444-3128  
Website: [www.upb.edu.ph](http://www.upb.edu.ph)



21 February 2017

**OFFICE OF THE REGIONAL DIRECTOR**  
Department of Education Region III  
Maimpis, City of San Fernando, Pampanga 2000

DEPARTMENT OF EDUCATION	
REGION III	
OFFICE OF THE REGIONAL DIRECTOR	
RECEIVED BY:	<i>Bern</i>
DATE:	<i>2/27</i>
TIME:	<i>8:15</i>

**DEAR SIR/MADAM:**

Greetings of service!

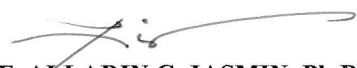
We are pleased to inform you that the **College of Science** of the **University of the Philippines Baguio** will be undertaking its 23<sup>rd</sup> Summer Institute in the Natural Sciences and Mathematics (SINSM) with the theme "*Keeping abreast with current trends in scientific teaching and research*" at the University of the Philippines Baguio campus on 27-29 April 2017.

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 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, Geology, and recently in Sports Science. Our service is inspired by the very objectives of the Commission on Higher Education in its desire to inculcate academic excellence in the teaching of science, mathematics and allied degree programs by strongly encouraging the conduct of lectures and seminar workshops related to these fields.


In connection to this, we are hereby requesting endorsement of this activity from your good office. We have attached copy of the flyer for the details of our seminar/workshop for your kind perusal.

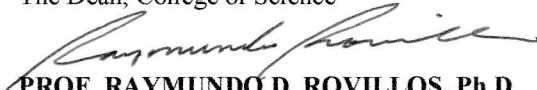
Thank you very much in anticipation of your favorable action and continued support to these endeavors. Details are posted in this website: [www.upb.edu.ph](http://www.upb.edu.ph) or email us at [sinsm.upbaguio@up.edu.ph](mailto:sinsm.upbaguio@up.edu.ph) for inquiries.

Respectfully yours,

  
**PROF. ALLADIN C. JASMIN, Ph.D.**  
Chairperson, SINSM 2017 Committee

Noted:

  
**PROF. ROSEMARY M. GUTIERREZ, Ph.D.**  
The Dean, College of Science

  
**PROF. RAYMUNDO D. ROVILLOS, Ph.D.**  
The Chancellor  
University of the Philippines Baguio

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 and Physical Sciences. 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 objectives to establish and maintain a complete, adequate, and integrated system of basic education relevant to the goals of national development.

The 23<sup>rd</sup> SINSM is scheduled on 27-29 April 2017. Each Department in the College has its own theme, schedule and venue for the activity.

#### DEPARTMENT OF BIOLOGY

Department of Biology adopts the theme **"Inheritance and Gene Manipulation"** for the 23<sup>rd</sup> SINSM. The thrust of this year's SINSM is to equip and train K-12 educators on the concepts of Mendel's Law of Inheritance, Sex Linkage, and Recombinant DNA.

For more inquiries please contact:

Department of Biology Representatives:

**Prof. Richmond Batulan**  
Contact #: 0917-816-6706  
Email address: rcbatulan@up.edu.ph

**Prof. Karen Ballada**  
Contact #: 0915-615-7498  
Email address: kaballada@up.edu.ph

#### DEPARTMENT OF PHYSICAL SCIENCES

The Department of Physical Sciences will be having its SINSM in two subject areas: Physics and Chemistry.

The theme for this year is **"Competencies and strategies in teaching the K-12 basic curriculum"**. The main focus is to give educators, especially secondary school teachers, more ideas and strategies in handling the physics and chemistry courses in the K-12 program, especially in laboratory work.

The Physics discipline will focus on enrichment workshops on teaching strategies through problem-solving and demonstration. The Chemistry discipline will deal with research principles and techniques in the chemistry laboratory

For more inquiries please contact:

Department of Physical Sciences  
**Prof. Brenda Pelagio**  
Contact #: 0998-887-0026  
Email address: bapelagio@up.edu.ph

Department of Physical Sciences  
**Prof. Carlisle Casuga**  
Contact #: 0906-655-5468  
Email address: cmcasuga@up.edu.ph

#### DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

The Department of Mathematics and Computer Science adopts the theme **"Supporting and Enriching Mathematics Instruction in the Secondary and Tertiary Levels using Technology and New Approaches"** for SINSM 2017.

The department will conduct lectures on Pre-Calculus (Analytic Geometry, circles, conic sections, series and mathematical induction, trigonometry), Calculus with Matlab (Functions, Limits and Continuity, Derivative and Integral), General Mathematics and Business Mathematics, Probability and Statistics, Mathematical Modelling and Optimization, Basic

Computer Programming and Algorithm Design for high school students. The department will also conduct two plenary sessions on Elementary Higher Mathematics Courses for High School educators and Recent Trends in Mathematics Researches for tertiary educators.

For more inquiries please contact:

Department of Mathematics and Computer Science  
**Prof. Joy P. Ascano**  
Contact #: 0906-474-5041  
Email address: jpascano@up.edu.ph

#### HUMAN KINETICS PROGRAM

The Human Kinetics Program continues to explore opportunities to promote participation in both outdoor and indoor activities not only for formal physical education courses but for general leisure and recreational events as well. This will enhance involvement in outdoor recreation and sustain interest in the more traditional indoor activities. Topics include Aqua Zumba, Wushu, Water Based Team Building Activities and Advances in the fields of Table Tennis, Dance Movement Therapy and Bird Watching.

For more inquiries please contact:

Human Kinetics Program  
**Prof. Jandy Gay-as**  
Contact #: 0975-894-7256  
Email address: jugayasa@up.edu.ph



## SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS (SINSM)

College of Science

University of the Philippines

Governor Pack Road, 2600 Baguio City

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

Website: <http://www.upb.edu.ph>



### ORGANIZATIONAL PROFILE

#### COLLEGE OF SCIENCE

The College of Science was established in December 2002 when the University of the Philippines Baguio became the 7th constituent university of the UP System. Evolving from the then Department of Natural Sciences and Mathematics, the College continues to take the lead in upgrading Science and Mathematics education and research in Northern Luzon. The College comprises three departments, the Department of Biology, Department of Mathematics and Computer Science, and the Department of Physical Sciences. The Human Kinetics Program, which takes care of the Physical Education and Sports programs of UP Baguio, is also part of the College of Science.

The College offers four undergraduate programs, namely, BS Biology, BS Mathematics, BS Computer Science and BS Physics, and two graduate programs, MS Mathematics and MS Conservation and Restoration Ecology. All these academic programs prepare students for a career in education, research, or post-graduate studies. These academic programs are regularly reviewed and upgraded to address the developments of the times. In 1998, the College of Science was designated by the Commission on Higher Education as Centers of Development in Biology, Mathematics and Physics.

#### The HUMAN KINETICS PROGRAM

The program in Human Kinetics provides service to the physical education needs of the undergraduate level. It manages the intramural sports and extramural/varsity program of the University. The HKP sustains and gives direction to the inter-government agencies sports program, the Baguio-Benguet Educational Athletic League, as well as the recreational needs of the University employees.

The HKP faculty engage in researches on physical education principles and practices of players, coaches and students especially in the Cordillera region. Through their various extension activities, the HKP faculty assist in the training of teachers in the region on how to handle courses in physical education, sports, Philippine games and dances. They also serve the needs of teachers and coaches in the region for high altitude training in sports.

#### EXTENSION PROGRAM

The College also provides relevant, sustained, up-to-date and accessible training programs for Science and Mathematics teachers in the Northern Luzon region, mainly through its **Annual Summer Institute in the Natural Sciences and Mathematics (SINSM)**. Since 1990, SINSM has trained and updated teachers on the latest developments in theory, applications and pedagogy, as well as providing refresher courses in basic concepts in the fields of Biology, Mathematics, Computer Science, Physics, Chemistry, and Geology.

The objective of this year's SINSM is to offer trainings for secondary and tertiary teachers in line with the K to 12 program and preparatory for the new tertiary education program.

#### THREE-YEAR PLAN OF THE ORGANIZATION:

Every year's training program is dependent on the need of the client as reflected in the evaluation sheet submitted by the participants at the end of the activity. The training should be consistent with the thrust of the University and the Department of Education in the desire to establish and maintain a complete, adequate, and integrated system of basic education relevant to the goals of national development.



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### LIST OF COLLEGE EXECUTIVE BOARD

#### Dean:

Dr. Rosemarie M. Gutierrez

#### Department Chairs:

Dr. Romeo Dizon

Department of Biology

Dr. Giovanni Malapit

Department of Physical Sciences

Dr. Jerico Bacani

Department of Mathematics and Computer Science

Prof. Fernando Florendo  
Human Kinetics Program

### SINSM COMMITTEE:

Alladin Jasmin

Committee Chair

Email address: [sinsm.upbaguio@up.edu.ph](mailto:sinsm.upbaguio@up.edu.ph)

#### Representatives:

Carlisle Casuga

Department of Physical Sciences

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Richmond Batulan

Department of Biology

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Karen Ballada

Department of Biology

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Jandy Gay-as

Human Kinetics Program

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### Correspondent:

ALLADIN JASMIN

SINSM Chair

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Telefax: (074)-444-3128

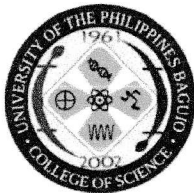
Landline: (074)-442-7231

## Three-year Plan

	2017	2018	2019
Theme	Keeping abreast with Current trends in Scientific Teaching and Research	Gearing Towards effective Teaching and Research Methods	Updating K-12 Science and Mathematics Education: Content and Competency
Objectives	Provide the current trends in teaching and research in line with the needs of the present K-12 curriculum	Enhance the specializations in teaching and research in response to the present demand	Strengthen the foundations in science and mathematics teaching and research through innovative approach
Date	27-29 April 2017	26-28 April 2018	25-27 April 2019
Venue	UP Baguio	UP Baguio	UP Baguio

# Science and Math mentors gather for K to 12 training at UPB

■By LIEZEL MAGTOTO



A three-day lecture-workshop was provided by the faculty and guest speakers of the College of Science to K-12 educators through its 22<sup>nd</sup> Summer Institute in the Natural Sciences and Mathematics (SINSM).

SINSM is an annual extension service of the College

that seeks to offer interactive venues for educators and researchers in the Sciences and Mathematics in the Cordillera as well as nearby areas. In accordance with the K-12 curriculum, the College designed lectures and workshops that would help the K-12 teachers enhance their

capabilities in teaching the new curriculum.

For this reason, the College adopted the theme "Strengthening the K-12 Science and Mathematics Concepts and Pedagogies." This was attended by 350 participants, which included elementary,

*continued on page 6*

SCIENCE, from page 1



Various activities were undertaken in this year's Summer Institute in the Natural Sciences and Mathematics (SINSM) with the theme, "Strengthening the K-12 Science and Mathematics Concepts and Pedagogies."

secondary, and tertiary teachers from all over the country.

The Department of Biology adopted the subtheme "Understanding the Concepts of Genetics, Morphoanatomy, and Taxonomy in the Light of Evolution." The 73 participants of the Department were provided with lectures and classroom activities on the Central Dogma of Molecular Biology, DNA Sequencing and its Application, Dispersal and Dispersion, Extinction and Speciation, Conservation and Biogeography, and Issues and Challenges in Taxonomy.

One of the most-appreciated parts of the three-day event was the field exposure at Mt. Sto. Tomas, where they had the opportunity to observe in situ the different ecological landscapes as well as learn the adaptive features

of the preordophytes, bryophytes, and lichens found in the mossy forest.

The Department of Mathematics and Computer Science adopted the subtheme "Research and Mathematics Education in Response to the K-12 curriculum." The 152 participants were given lectures and workshops on Pre-Calculus (analytic geometry, circles, conic sections, series and mathematical induction, trigonometry), Calculus with Matlab (functions, limits and continuity, derivatives and integral), General Mathematics, Probability and Statistics, Mathematical Modelling and Optimization, Basic Computer Programming and Algorithm Design for high school students.

Plenary talks were also delivered by Dr. Rhudaina Z. Mohammad on "Exploring

Sequences Using Geogebra" and Dr. Gilbert R. Peralta on "Partial Differential Equations as Models for Evolving Phenomena."

The Department of Physical Sciences adopted the subtheme "Addressing Issues in Content and Pedagogy in the K-12 Curriculum." The three-day activity of the Department started with a plenary session where Dr. Chelo Pascua talked on "Mineral Resources and Society." The Department offered ideas and strategies in handling the physics and chemistry courses in the K-12 program, especially in laboratory work. The Department also brought its 100 participants in a field exposure and water sampling at the Baguio Sewage Treatment Plant and Burnham Lake.

*continued next page*



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