



SUMMER INSTITUTE IN THE NATURAL SCIENCES AND MATHEMATICS (SINSM)

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



DepED DIVISION OFFICE BAGUIO

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25 March 2014

DR. FRANCIS CESAR B. BRINGAS, CESO VI

OIC, Schools Division Superintendent
Baguio City

Dear Dr. Bringa,

We are pleased to inform you that the College of Science of the University of the Philippines-Baguio will be undertaking its 20th Summer Institute in the Natural Sciences and Mathematics (SINSM) on May 1-3, 2014 at the University of the Philippines Baguio campus.

The **Summer Institute in the Natural Sciences and Mathematics (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 region, as well as nearby areas. Since 1990, the SINSM has provided training for 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 service is inspired by the very objectives of the Department of Education in its desire to establish and maintain a 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. This year, the Human Kinetics Program will be joining to give updates and innovations in Sports Science.

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

EVENT	DATES	SUBTHEME/TOPICS	EARLY BIRD	ON-SITE
Biology	Part I: May 2-3, 2014 and Part II: June 13-14, 2014	Current Trends and Innovations in Biological Researches Part 1: Field Methods Part 2: Laboratory Methods and Community Participatory Action Research Methods	Php 1,200.00 (per part)	Php 1,500.00 (per part)
Physics and Chemistry	May 1-3, 2014	Content Enrichment and Laboratory Demos in Physical Sciences	Php 1,750.00	Php 1,900.00
Mathematics and Computer Science	May 1-3, 2014	Mathematical Tools Toward Enhancing and Developing Mathematics Teaching and Research	Php 2,000.00	Php 2,200.00
Human Kinetics	May 2-3, 2014	Updates and Innovations in Sports Science	Php 1,200.00 Php 1,000.00 (student rate for HKP only)	Php 1,500.00

Payment thru bank deposit (UPCB Educational Foundation, Inc. DBP Baguio Current Account 0510-004420-030) must be received by *April 11, 2014* (and May 26 for Part 2 of DB) to avail of early bird registration. A copy of the bank transaction receipts should be sent to sinsm2014@gmail.com. All registered participants are entitled to have seminar kit, lunch and am/pm snacks.

In this regard, may we request your good office to issue a memorandum to your respective division regarding the activity? We believe that your endorsement will encourage our teachers to participate in this important event. Thank you very much in anticipation of your favorable action and continued support. Details are posted in this website: <http://www.upb.edu.ph> or email us at sinsm2014@gmail.com for inquiries.

Respectfully yours,

DR. ZENAIDA G. BAOANAN
20th SINSM Chairman

Noted by:

DR. IAN JASPER A. AGULO
OIC Dean, College of Science

April 2, 2014

To: All Secondary School Principals (Public)

FOR YOUR INFORMATION AND GUIDANCE.

FRANCIS CESAR B. BRINGAS, CESO VI

OIC, Schools Division Superintendent

The **Summer Institute in the Natural Sciences and Mathematics** (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 region, as well as nearby areas. Since 1990, the SINSM has provided training for 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 in line with the current thrusts of the Commission on Higher Education (CHED) and the Department of Education (DepEd) 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.

The 20th SINSM will include the Human Kinetics Program for the first time with the general theme, **“Content Enrichment in Teaching and Research Methods”**. All lectures/workshops will be conducted at the University of the Philippines Baguio campus.

DEPARTMENT OF BIOLOGY (DB)

The Department of Biology will have series of lectures and workshops on topics related to **Current Trends and Innovations in Biological Science Research**. The first of its series will be on May 2-3, 2014 showcasing field methods that include: field recognition of fungi, bryophytes and higher plants; mist netting of bats and birds; collection and identification of ants; and, productivity measurement in freshwater ecosystems. The second part will be held on June 13-14, 2014 with focus on Community Participatory Action Research (CPAR) and other laboratory based methods for studying angiosperm, plant tissue culture, morphological, and molecular phylogeny. The training is designed for secondary and tertiary level

educators, research staff of environment-related government agencies and NGOs who are planning to do field research and biodiversity studies. *Participants may choose to attend one part or both but will be charged separately. Participants are advised to be on field work and laboratory attire for the respective workshops.*

DEPARTMENT OF PHYSICAL SCIENCES (DPS)

The Department of Physical Sciences (DPS) will hold its activities on May 1-3 aimed at enriching content, pedagogy, and comprehension of selected topics in Physics and Chemistry through lectures and interactive hands-on activities. For Physics, lectures and activities on measurements, vector analysis, dynamics of motion in all dimensions, momentum and energy conservation in collisions, periodic motion, fluid mechanics, and innovative data acquisitions using smart phones/tablets. The Chemistry sessions will consist of lectures on the latest elements of the Periodic Table, chemical reactions in Consumer Chemistry, and Green Chemistry (i.e. practices for the reduction of green house gases emission). They will also give practical work in High School Chemistry, Instrumentation (DIY Simple and Cost-Effective Data Acquisition System), and Consumer Chemistry such as soap making. The target clientele are mainly secondary teachers but tertiary teachers and students may also participate.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE (DMCS)

The Department of Mathematics and Computer Science has adopted the subtheme **“Mathematical Tools Toward Enhancing and Developing Mathematics Teaching and Research”**. The highlights of the activities will include plenary talks on “IP Education Framework and its Implications to Mathematics Instruction” and “Mathematics Literacy for General Education in the

Philippines”. There will be lectures on Mathematical Preliminaries on Differential Equations and Dynamical Systems, Applications using Delay Differential Equations, and Genetic Algorithm. The workshops will focus on Learning Management System using Moodle and LaTeX Mathematical Typesetting. The lectures and workshops are intended for graduate students and faculty of HEIs offering undergraduate and graduate degrees in Mathematics and Mathematics Education. Secondary school teachers working on investigatory projects in Mathematics are also encouraged to attend.

HUMAN KINETICS PROGRAM (HKP)

This is the first time that the Human Kinetics Program will join the SINSM with their subtheme **“Updates and Innovations in Sports Science”**. The seminar/workshop format will be parallel session type including topics on: Functional Training and Periodization; Exercise and the Environment; Sport Psychology; Injury Prevention and Management; Nutrition and Performance; Strength and Conditioning; Dance Innovations (Basic Latin Dances) and Sports Taping and Bandaging. The lectures and workshops are intended for Physical Education Teachers, Coaches, and Physical Education Majors in the Cordillera and nearby provinces.

ADVISORY

CHED and DepEd Memoranda regarding this activity shall be posted on and may be downloaded from our website at: <http://www.upb.edu.ph>.

REGISTRATION DETAILS

Participant Category	Early Bird	On-site registration
Biology Part I: May 2-3 Part II: June 13-14, 2014	Php 1,200.00 (per part)	Php 1,500.00 (per part)
Physics & Chemistry May 1-3, 2014	Php 1,750.00	Php 1,900.00
Mathematics & Computer Science May 1-3, 2014	Php 2,000.00	Php 2,200.00
Human Kinetics May 2-3, 2014	Php 1,200.00	Php 1,500.00
	Php 750.00 (for HKP student participants only)	

Payment thru bank deposit (UPCB Educational Foundation, Inc. DBP Baguio Current Account 0510-004420-030) must be received by April 11, 2014 (and May 26 for Part 2 of DB) to avail of early bird registration. A copy of the bank transaction receipts should be sent to sinsm2014@gmail.com. All registered participants are entitled to have seminar kit, lunch and am/pm snacks.

¹Pre-registered participants will be given priority use of computers during lab sessions. Only 30 slots are allotted per lab session. Walk-in participants are advised to bring their own laptop computers in case the 30 slots are already filled-in.

INQUIRIES

For more inquiries and reservations of slots, please contact:

SINSM Committee

Dr. Zenaida G. Bacanan

Committee Chair

Contact #: 0906-729-7964/ 0932-527-7856

Email address: zgbacanan@up.edu.ph

Prof. Dymphna N. Javier

Co-chair

Contact #: 0927-3901798

Email address: dee_upbaguio@yahoo.com

Biology

Ms. Liezel M. Magtoto

Committee Chair

Contact #: 0916-7572326

Email address: lzel_m@yahoo.com

Physics and Chemistry

Ms. Bhazel Pelicano

Department Representative

Contact #: 0917-726-7598

Email address: bhazie@gmail.com

Mathematics and Computer Science

Dr. Juancho Collera

Department Representative

Contact #: 0917-506-4738

Email address: jacollera@up.edu.ph

Human Kinetics

Dr. Jocelyn Floresca

Program Representative

Contact #: 0928-745-6876

Email address: jho4floresca@yahoo.com



The

College of Science
University of the Philippines Baguio

invites you to its

20th Summer Institute in the Natural Sciences and Mathematics (SINSM 2014)

with the theme

“Content Enrichment in
Teaching and Research
Methods”

1-3 May 2014

13-14 June 2014 (for Biology only)

University of the Philippines Baguio