



# UP NISMED Seminar-Workshops 2012



UP NISMED is offering the following seminar-workshops for elementary and high school science and mathematics teachers:

- **Development of Inquiry-Based Science Activities**  
Level: Elementary
- **Producing Teaching Materials for Elementary School Science**  
Level: Elementary
- **Teaching Grade 1 Mathematics in the K to 12 Curriculum**  
Level: Grade 1
- **Chemistry Laboratory Techniques, Safety and Management**  
Level: High School
- **Teaching Selected Topics in the K to 12 Life Science Curriculum**  
Level: High School
- **Teaching Mathematics Through Problem Solving**  
Level: High School
- **Inquiry-Based Science Teaching Anchored on the K to 12 Curriculum Framework**  
Level: High School

Schedule: October 23, 25, 2012

No. of Hours: 18

Fee: Php3,500/person

- 
- **Lesson Study and Teaching Science Through the Inquiry Approach**  
Levels: Elementary and High School

Schedule: November 10, 17, 24 and December 1, 2012

No. of Hours: 18

Fee: Php4,500/person

---

Send **Pre-registration Form** to:  
[up\\_nismed@yahoo.com](mailto:up_nismed@yahoo.com) or call (02) 9283545

The University of the Philippines National Institute for Science and Mathematics Education Development regularly offers seminar-workshops as part of its commitment to help upgrade the competencies of science and mathematics teachers and supervisors in the country. These courses provide an experiential base and motivation for further activity and learning in science and mathematics education for the teacher-participants through innovative and learner-centered teaching strategies. They aim to hone participants' understanding of concepts, processes, and thinking skills in science and mathematics at the basic education level, as well as to increase their pedagogical content knowledge.

UP NISMED can conduct specially designed seminar-workshops at other venues for a minimum of 15 trainees upon request. In such cases, the requesting party shall bear the cost of transportation and accommodation of the training staff. Arrangements, indicating the number of prospective trainees and proposed dates and venues, should be made with the Office of the Director.

Time schedule of courses: 8:30 - 11:30 a.m., 1:30 - 4:30 p.m.

For inquiries and reservation, please contact or write to:

<p>The Director UP NISMED, E. Quirino Ave., UP Campus Diliman, Quezon City 1101 Tel/fax: (02) 9283545 email: nismed@up.edu.ph, up_nismed@yahoo.com</p>
--

The preregistration form, accompanied with full payment of the fee (either in cash, postal money order or manager's check payable to UP NISMED) must be received at least two weeks before the start of the seminar-workshop.

When registration is cancelled by the participant, only 80% of the fee may be refunded. The fee is fully refundable only if UP NISMED cancels the seminar-workshop. Preregistrants will be informed of any cancellation. Refund takes about a month to process.

All seminar-workshops will be conducted for a minimum of 15 participants. Walk-in participants cannot be admitted if the maximum of 30 participants per seminar-workshop has been met.

# UP NISMED Seminar-Workshops 2012

## Development of Inquiry Based Science Activities

No. of Hours: 18 hours  
Level: Elementary  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

The course will provide opportunities for elementary school science teachers to share science activities they use in class, compare these with examples of inquiry-based activities, describe the features of an inquiry-based activity, and finally be able to develop one such science activity in collaboration with fellow teachers. They will examine a variety of examples of science activities, point out the elements that make an activity inquiry-based, and make suggestions regarding outputs of fellow teacher-participants.

## Producing Teaching Materials for Elementary School Science

No. of Hours: 18  
Level: Elementary  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

The seminar-workshop aims to develop teachers' creativity and effectiveness in teaching elementary science through the use of different types of teaching materials. There will be sessions on the design, production, and utilization of selected teaching materials. Samples of non-projected visuals (i.e., models, posters), projected visuals (i.e., video programs), audio materials, and computer-mediated materials (i.e., Powerpoint presentations) will be shown. The participants will bring home the teaching materials that they develop.

## Teaching Grade 1 Mathematics in the K to 12 Curriculum

No. of Hours: 18  
Level: Grade 1  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

This seminar-workshop will showcase the teaching of selected topics in Grade 1 Mathematics. The lesson/s for each topic is/are aligned with the competencies in the K to 12 curriculum. Each lesson will make use of situations or tasks that develop/enhance higher-order thinking skills.

## Chemistry Laboratory Techniques, Safety, and Management

No. of Hours: 18  
Level: High School  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

Laboratory experiences are an integral part of high school chemistry. The laboratory provides opportunities for students to experience the reality of chemistry rather than merely learning isolated concepts, facts, skills, and theories. It is also a place where the teacher provides a safe and supportive environment when they feel free to explore and investigate.

This seminar-workshop aims to develop teachers' practical skills required for teaching high school chemistry. It will emphasize correct laboratory techniques and laboratory safety management. It will also focus on the use, operation, and maintenance of basic chemistry equipment and proper laboratory management. It will also show practical activities and highlight the chemistry concepts that are involved in these activities.

## Teaching Selected Topics in the K to 12 Life Science Curriculum

No. of Hours: 18  
Level: High School  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

This seminar-workshop showcases an inquiry approach in teaching selected topics aligned with the learning competencies of the K to 12 Curriculum through laboratory and thought activities. It also presents the use of 3-D models and multimedia resources to explain concepts, processes, and principles in life science. These activities will help teachers provide opportunities to students to develop their inquiry, thinking, problem-solving, and communication skills.

## Teaching Mathematics Through Problem Solving

No. of Hours: 18 hours  
Level: Grades 7 to 10 (1<sup>st</sup> to 4<sup>th</sup> Year High School)  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### Description:

The seminar-workshop will provide participants the experience of solving problems that involve multiple solutions. This experience will deepen their understanding of some mathematical concepts and enable them to see mathematical connections.

The seminar-workshop will also provide the participants opportunities to collaboratively develop and implement lessons that use the problem solving approach.

## **Inquiry-based Science Teaching Anchored on the K to 12 Curriculum Framework**

No. of Hours: 18  
Level: Grades 7 to 10 (1<sup>st</sup> to 4<sup>th</sup> Year High School)  
Schedule: October 23, 24, 25, 2012  
Fee: Php3,500.00

### **Description:**

This seminar-workshop aims to demonstrate the spiraling of concepts within a science discipline and across disciplines, within a year level, and through the year levels. The iterative revisiting of topics, subjects or themes and gradual deepening and building on what was previously learned will be evident during the seminar-workshop. It will also demonstrate how content and inquiry skills are interwoven in the teaching of specific science concepts using the K to 12 curriculum framework.

Through this seminar-workshop, participants will deepen their understanding of core concepts in science. They will experience various inquiry-based activities that will better prepare them to guide their students to a deeper understanding of concepts. The participants will have the opportunity to process the activities extensively and discuss their applications in their respective classes. Working collaboratively, they will design and develop their own inquiry-based lesson on a science topic.

## Lesson Study on Teaching Science Through Inquiry Approach

No. of Hours: 18 hours

Level:

Schedule: November 10, 17, 24 and December 1, 2012

Fee: Php4,500.00

Description:

In this seminar-workshop, the focus is on enabling the participants to conduct Lesson Study as well as teaching science through inquiry approach. The latter elicits critical and creative thinking along with concept development and meaningful learning of students. One of the significant outputs is a science investigation to develop higher-order thinking among students.

Examples of the process as well as the products of Lesson Study are drawn extensively from UP NISMED and its partner schools in the Lesson Study project. Lesson Study is a school-based model of continuing professional development where teachers collaboratively examine their teaching practices so that they can impact on student learning. In other words, teachers take responsibility for improving their teaching practices in order to improve student learning. Lesson Study is gaining international attention as a sustainable and effective context especially for science and mathematics education teaching, learning, and research.