



Republic of the Philippines  
Department of Education  
Region VII, Central Visayas  
**DIVISION OF CEBU PROVINCE**  
Sudlon, Lahug, Cebu City



February 21, 2018

**DIVISION MEMORANDUM**

No. 154, s. 2018

**REGULAR COURSE (BATCH 2) OFFERED BY SEAMEO RECSAM  
FOR FISCAL YEAR 2018 (1-26 APRIL 2019)**

**To: Assistant Superintendents  
Chiefs, CID and SGOD  
Division Supervisors/Coordinators  
District Supervisors/OICs  
Elementary and Secondary School Heads**

1. Attached is Regional Memorandum No. 0142, s. 2018, entitled, **“Regular Course (Batch 2) Offered by SEAMEO RECSAM for Fiscal Year 2018 (1-26 April 2019).”**
2. For inquiries and clarifications, you may contact the DepEd Scholarship Secretariat at (02) 633-9455 or by email at neap.pdd@deped.gov.ph.
3. Immediate and wide dissemination of this Memorandum is desired.

  
**RHEA MAR A. ANGTUD, Ed.D., CESO VI**  
Schools Division Superintendent

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DR-PLD155  
DR 23334A

REPUBLIKA NG PILIPINAS  
REPUBLIC OF THE PHILIPPINES  
KAGAWARAN NG EDUKASYON  
DEPARTMENT OF EDUCATION  
REHIYON VII, GITNANG VISAYAS  
REGION VII, CENTRAL VISAYAS  
Sudlon, Lahug, Cebu City



FEB 19 2018

REGIONAL MEMORANDUM

No. **0142**, s. 2018

**REGULAR COURSE (BATCH 2) OFFERED BY SEAMEO RECSAM  
FOR FISCAL YEAR 2018 (1-26 APRIL 2019)**

To : Schools Division Superintendents/OICs

1. Enclosed is a memorandum from Dr. Lorna Dig Dino, Undersecretary, Curriculum and Instruction, re **Regular Course (Batch 2) Offered by SEAMEO RECSAM for Fiscal Year 2018 (1-26 April 2019)**, for your appropriate action.
2. For particulars, refer to the attached communication.
3. For inquiries and clarifications you may contact the DepEd Scholarship Secretariat at (02) 633-9455 or by email at [neap.pdd@deped.gov.ph](mailto:neap.pdd@deped.gov.ph).
4. Wide dissemination of this memorandum is desired.

*Juliet A. Jeruta*  
JULIET A. JERUTA  
Director III  
Officer-In-Charge

JA/STJ/mgb

Office of the Director (ORDi), Tel. Nos.: (032) 231-1433; 231-1309; 414-7399; 414-7325; Office of the Assistant Director, Tel. No.: (032) 255-4542  
Field Technical Assistance Division (FTAD), Tel. Nos.: (032) 414-7324 Curriculum Learning Management Division (CLMD), Tel. Nos.: (032) 414-7323  
Quality Assurance Division (QAD), Tel. Nos.: (032) 231-1071 Human Resource Development Division (HRDD), Tel. No.: (032) 255-5239  
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414-7065 Administrative Division, Tel. Nos.: (032) 414-7326; 414-4367; 414-7366; 414-7322; 414-4367  
Finance Division, Tel. Nos.: (032) 256-2375; 253-8061; 414-7321

**"EFA 2015: Karapatan ng Lahat, Pananagutan ng Lahat"**



Republic of the Philippines

## Department of Education

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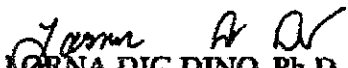
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*Undersecretary for Curriculum and Instruction*

MEMORANDUM  
DN-CI-2018-00085

*Scholarship Advisory No. 04, s. 2018*

**TO :** Regional Directors  
Schools Division Superintendents  
Heads of Public Elementary and Secondary Schools

**FROM :**   
LORNA DIG DINO, Ph.D.  
*Undersecretary for Curriculum and Instruction*

**SUBJECT :** Regular Course (BATCH 2) Offered by SEAMEO RECSAM for  
Fiscal Year 2018-2019 (1-26 April 2019)

**DATE :** 29 January 2018

The SEAMEO RECSAM announces its regular courses for Senior Educators and teacher trainers of SEAMEO member countries for Fiscal Year 2018-2019 (1-26 April 2019):

Course Code	Course Title	Deadline of Submission of Requirements	Number of Scholarships Available
RC-SS-143-3	Purposeful Assessment in Secondary Science Classrooms	7 December 2018	One (1) slot
RC-PM-143-4	Enhancing Science, Technology, Engineering and Mathematics (STEM) Learning in Primary Mathematics Classrooms	7 December 2018	Two (2) slots

The qualifications required for the course participants are described in Annex B (Regular Courses for Fiscal Year 2018-2019 (Batch 2), 1-26 April 2019).

The nominated participants must:

1. Be in good health both physically and mentally and certified medically fit in order to complete the course (Applicants must submit his/her medical certificate together with the application form);
2. Be considered as a nominee only upon receipt of the duly completed application form of the nominees;

3. Submit a photocopy of the front page of their passport with their particulars clearly printed; and
4. Complete the application forms in duplicate copies. Completed application forms, scholar agreement, medical report, photocopy of international passport and other relevant documents of the nominated candidates must be sent to RECSAM before the deadline given.

All other required documents must be submitted via email at [neap.pdd@deped.gov.ph](mailto:neap.pdd@deped.gov.ph) on or before the stated deadline.

The application form and other details of the program are enclosed in this memorandum. For further inquiries and clarifications, you may contact the DepEd Scholarship Secretariat at (02) 633-9455 or thru email at [neap.pdd@deped.gov.ph](mailto:neap.pdd@deped.gov.ph).

Immediate dissemination of and appropriate action for this memorandum is desired.

- Annex A:** *List of Requirements*  
**B:** *Regular Courses for FY 2018-2019 Batch 2, 1-26 April 2019 (Course Information)*  
**C:** *Application Form*  
**D:** *Medical Report Form*  
**E:** *Scholar Agreement*  
**F:** *Checklist for the documents to be submitted to SEAMEO RECSAM*  
**G:** *Scholarship Contract*

## LIST OF REQUIREMENTS

### A. Qualifications

- a. Filipino citizen
- b. At least a bachelor's degree holder
- c. Fifty (50) years and below
- d. With Salary Grade of 20 to 24
- e. Must have rendered at least two (2) years of service in the government (DepEd) at the time of nomination
- f. Must hold a permanent appointment at the organization nominating him/her
- g. Must have obtained at least a *Very Satisfactory* performance rating for two (2) consecutive period preceding the nomination
- h. Must have no pending administrative and/or criminal case
- i. Must have no pending nomination for scholarship in another program/course
- j. Must have already rendered the required service obligation for a scholarship previously enjoyed
- k. Willing to sign a service contract up to one year after completing the program
- l. Must meet the position level, age, education and experience required and specified by the donor country/organization/course
- m. Must have a good command of the English language (spoken and written)
- n. Physically and medically fit to travel
- o. Not an expectant mother

### B. Documentary

- a. Nomination Form 1-B
- b. Assessment Form 1-D
- c. Nomination Form 1-F: Agency Screening Certification
- d. Admission Form 3: Medical Certificate
- e. Letter of Application addressed to the donor organization
- f. Endorsement from Regional Director on his/her duly authorized representative
- g. Personal Data Sheet
- h. Statement of present actual duties and responsibilities relevant to the course/program, signed by the immediate supervisor
- i. Transcript/s, of Records and Diplomas for all degrees attained (4 certified copies)
- j. Service record
- k. Performance rating for two (2) consecutive rating periods immediately preceding the nomination
- l. Certification that the applicant has no pending application for scholarship under another program signed by the immediate supervisor
- m. Certification of no pending administrative and/or criminal case signed by the applicant's respective legal / administrative officer
- n. Medical certificate of physical fitness issued by a physician from a recognized accredited health institution but not the same institution where the applicant is presently employed



# REGULAR COURSES

FOR FISCAL YEAR 2018/2019 (BATCH 2)

1 - 26 APRIL 2019

**COURSE DESCRIPTION**

**REGULAR COURSES FOR FISCAL YEAR 2018/2019  
(Batch 2)**

**1 – 26 April 2019**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>NO. OF SCHOLARSHIPS OFFERED PER COUNTRY</b>
RC-SS-143-3	PURPOSEFUL ASSESSMENT IN SECONDARY SCIENCE CLASSROOMS	1
RC-PM-143-4	ENHANCING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM) LEARNING IN PRIMARY MATHEMATICS CLASSROOMS	2

**Level**  
P: Primary  
S: Secondary

**Subject**  
S: Science  
M: Mathematics



**SOUTHEAST ASIAN MINISTERS OF EDUCATION ORGANISATION  
REGIONAL CENTRE FOR EDUCATION IN SCIENCE AND MATHEMATICS**

Jalan Sultan Azlan Shah, 11700 Gelugor, Penang, Malaysia

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Website: <http://www.recsam.edu.my/>

## REGULAR COURSES FOR FISCAL YEAR 2018/2019

**Course Code: RC-SS-143-3**

**Course Title: PURPOSEFUL ASSESSMENT IN SECONDARY SCIENCE CLASSROOMS**

### **Rationale:**

Assessment is a fundamental issue in science education and perceived to be the driving force in curriculum development and implementation, and in the teaching and learning process in the classroom. Since the new generation of students are required to think critically, justify, evaluate, synthesise, and apply knowledge in new contexts, as well as solve problems, and communicate effectively in a scientific discourse, the structure of the assessment system inevitably needs a deeper look. In addition, accountability for student achievement, emphasis on national and international assessment programmes, and global competition – all contribute to the increased demands for assessment.

Purposeful assessment practices steer teachers and students to understand where they have been, where they are at present, and where they are heading. There is a need to consider the meaningful role of assessment even during the process of teaching and learning rather than considering assessment only upon completion of the teaching and learning process. Thus, the link between science assessment, pedagogies used and instructional practices adopted in the classroom has to be well defined and well established.

The various perspectives assumed by assessment namely, assessment as learning, assessment of learning, and assessment for learning are integral for effective science teaching and learning. Even though they take different forms, overlap and interact, no single assessment method can provide sufficient information to effect positive changes in teaching and learning. The key to purposeful assessment is to align the assessment to the teaching objectives and the instructional approach used and to use different types of assessments as part of instruction results in providing useful information about student understanding and progress.

### **Objectives**

The course aims to equip participants with the knowledge, attitude, skills and habits to operationalise the important role of purposeful assessment in the teaching and learning process. It is hoped that the participants will gain exposure to current and effective research-based assessment strategies and practices that are aligned with established educational theories and routine classroom practices.

At the end of the course, the participants should be able to:

- 1 gain understanding on the nature, purposes, types, and practices of assessment;
- 2 explain the interrelationships of assessment with pedagogy and curriculum in the teaching and learning process;
- 3 discuss the potential influences of international, centralised and school-based assessments to classroom teaching and curriculum development;
- 4 enhance skills to align current active science teaching and learning approaches that promote higher-order thinking, creative thinking and critical thinking skills to assessment; .



- 5 develop tasks and assessment instruments to gauge students' achievement in science;
- 6 integrate technology in science assessment; and
- 7 plan, design and implement science lesson by adapting an instructional design with emphasis on assessment as well as congruency to content and pedagogy.

### **Course Contents**

This course emphasises on a deep grounding of theory and research on the principles, purposes and practices of assessment and learning. The participants will explore on the relationship of assessment to pedagogy, curriculum and instructional practices in the classroom.

The course also focuses on the significance of assessment in planning science lessons and the coherence of the essential components such as lesson objectives formulation, instructional strategy selection and assessment procedure appropriate with the end view of improving student learning and teaching effectiveness. It is essentially activity-oriented and calls for deep reflection of the participants' professional experiences pertaining to the various issues and challenges encountered in the teaching and learning of science. The course activities are designed to cater for discussions, presentations, and hands-on and minds-on sessions.

The major areas include:

1. Trends and Issues in Assessment in Science Education
2. Fundamentals of Assessment
  - 2.1 Nature, Purposes and Practices
  - 2.2 Relationships of Assessment as , for and of Learning
3. Potential Influences of International, National and School-based Assessment in Student Learning
4. Aligning Science Pedagogy and Assessment Practices
  - 4.1 Constructivism and its Implications to Assessment
  - 4.2 Formative and Summative Assessments in Science Classrooms
  - 4.3 Self Assessment and Peer Assessment
5. The Use of Information and Communications Technology in Assessment
6. Enhancing Teacher's Understanding and Practices on the Role of Assessment
  - 6.1 Performance Tasks
  - 6.2 Rubrics
  - 6.3 Importance of Feedback
  - 6.4 Observation Skills
  - 6.5 Questioning Techniques
  - 6.6 Analyses of Students' Work and Homework
  - 6.7 Developing Student Motivation for Learning
7. Planning and Developing Science Lessons, Trying-out and Improving Adopting Appropriate Strategies, Skills and Assessment Practices, through the Lesson Quality Improvement Process.

**Duration:** Four weeks

**Participants:** Science Educators or Key Secondary Science Teachers

**English Proficiency:** Minimum IELTS Band 5.0 or Equivalent and able to Communicate Moderately in English

- Expected Output:** 1. Project Work Report  
2. Multiplier Effect Action Plan

**References:**

- Creemers, B., Kyriakides, L. & Panayiotis, A. (2013). *Teacher professional development for improving quality of teaching*. Springer Science and Business Media Dordrecht
- Corrigan, D., Gunstone, R. & Jones, A. (Eds) (2013). *Valuing assessment in science education: Pedagogy, Curriculum, and Policy*. Springer Science and Business Media Dordrecht.
- Gardner, J. (Ed) (2012). *Assessment and learning second edition*. SAGE Publication Ltd. London.
- Goldston, M.J. & Downey, L. (2013). *Your science classroom: Becoming an elementary/middle school science teacher*. SAGE: USA
- Greenstein, L. (2012). *Assessing 21<sup>st</sup> century skills: A guide to evaluating mastery and authentic learning*. Corwin. USA
- Griffith, A. & Burns, M. (2012). *Outstanding teaching series: Engaging learners*. Crown House Publishing Limited. UK
- Llewellyn, D. (2013). *Teaching high school science through inquiry and argumentation 2<sup>nd</sup> edition*. Corwin. USA
- Oversby, J.(Ed) (2012). *ASE guide to research in science education*. The Association for Science Education, College Lane, Hatfield, Herts AL109AA
- Wellington, J. & Ireson, G. (2012). *Science learning, science teaching, 3<sup>rd</sup> edition*. Routledge: NY
- Wiggins, G., & McTighe, J. (2005). *Understanding by Design*. Alexandria, Virginia: Association for Supervision

**Course Code: RC-PM-143-4**

**Course Title: ENHANCING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM) LEARNING IN PRIMARY MATHEMATICS CLASSROOMS**

**Rationale:**

The term "Science, Technology, Engineering and Mathematics (STEM) education" refers to teaching and learning in the fields of Science, Technology, Engineering and Mathematics. Students need education with a solid foundation in STEM so that they are prepared to work and live in the 21st century. A STEM education, particularly in enabling mathematics, provide students the foundations to acquire further skills as they make their lifetime transitions to the labour market.

Promoting mathematical processes such as problem solving, reasoning, communication, making connections and representation with STEM approach might bridge the gap between students' interest and how lessons are taught. The research finding in the last two decades show that simulations, animations and game-based-learning provide promising results for improving students' learning outcomes in STEM education. These ICT applications can support STEM education as they provide the platform to teach skills such as critical thinking, multitasking, strategising, problem-solving, and team building. STEM when embedded with ICT has the potential contribution to increase global awareness through collaboration with field experts and Smarter Classrooms, support exploration and experimentation by providing immediate as well as visual feedback, and focus attention on real-world applications of STEM concepts through relevant technologies. Assessment can be integrated directly with learning environments through innovative forms which takes place when using educational animations, simulations and games. The integration of Information and Communication Technologies (ICT) into STEM education is recognised as providing opportunities for developing skills for the 21st century and having the potential to transform pedagogical practices.

**Objectives:**

The main objective of the course is to provide participants the necessary knowledge and skills in conducting STEM in their own classrooms.

At the end of the course, participants should be able to:

- 1 acquire basic knowledge on mathematical thinking that promotes STEM education;
- 2 develop skills necessary to improve teaching and learning of STEM;
- 3 adopt necessary skills for effective teaching and learning of primary mathematics
- 4 integrate ICT in STEM Education using tools such as simulations, animations and game-based-learning;
- 5 assessment for STEM; and
- 6 use the lesson quality improvement process to develop quality lesson plans that illustrate the integration of computer games in mathematics lessons that promote mathematical thinking.

## **Course Contents:**

This course emphasises a good learning of theory with reflective classroom practices based on STEM. STEM has the potential to increase teachers' and learners' productivity. The knowledge and skills acquired would enable them to initiate STEM for improving primary mathematics classroom practices in their respective schools upon returning to their own countries after this course.

The major areas include:

- 1 Mathematical Thinking
  - 1.1 Issues and Trends in Mathematics Education
  - 1.2 Design Activities and Classroom Interactions that Highlight the Mathematical Processes of:
    - 1.2.1 Problem Solving
    - 1.2.2 Reasoning and Proving
    - 1.2.3 Mathematical Connection
    - 1.2.4 Representation
    - 1.2.5 Communication
  - 1.3 Metacognition
    - 1.3.1 Metacognitive Knowledge
    - 1.3.2 Metacognitive Representation
    - 1.3.3 Metacognitive Experience
- 2 Teaching Approaches for Promoting STEM
  - 2.1 Structured Problem Solving
  - 2.2 Problem Solving [Model and Heuristics]
- 3 Skills Needed for STEM
  - 3.1 Facilitation Skills
  - 3.2 Inquiry Skills
- 4 ICT Integration and Assessment for STEM
  - 4.1 Simulations
  - 4.2 Animations
  - 4.3 Game-based-Learning
- 5 Assessment for STEM
  - 5.1 Technology-based Assessment for STEM Education
- 6 Lesson Quality Improvement Process
  - 6.1 Lesson Quality Improvement Process (Theory into Practice);
  - 6.2 Planning, Developing, Trying-out and Improving Quality Lesson Plans that Illustrate the Integration of Simulations, Animations and Games in Mathematics Lessons that Promote Mathematical Thinking in STEM Education;

**Duration:** Four weeks

**Participants:** Mathematics Educators or Key Primary Mathematics Teachers

**English proficiency:** Minimum IELTS Band of 4.5 or Equivalent

**Expected output:**

1. Project (Research) Work Report
2. Multiplier Effect Action Plan

## References:

- Atkinson, R., Hugo, J., Lundgren, D., Shapiro, J., & Thomas, J. (2007). Addressing the STEM Challenge by Expanding Specialty Math and Science High Schools. *The Information Technology and Innovation Foundation*, 1-13.
- Doerr, H. (2006). Examining the tasks of teaching when using students' mathematical thinking. *Educational Studies in Mathematics*, 62(1), 3-24.
- Greenes, C. (1995). Mathematics learning and knowing: A cognitive process. *Journal of Education*, 177(1), 85-106.
- Flegg, J., Mallet, D., & Lupton, M. (2012). Students' perception of the relevance of mathematics in engineering. *International Journal of Mathematical Education in Science and Technology*, 43(6), 717-732.
- Prediger, S. (2001). Mathematics learning is also intercultural learning. *Intercultural Education*, 12(2), 163-171.
- Smetana, L. K., & Bell, R. L. (2012). Computer simulations to support science instruction and learning: A critical review of the literature. *International Journal of Science Education*, 34(9), 1337-1370.
- Wolf-Watz, M. (2001). Developing pupil's mathematical thinking: Student teachers' beliefs and conceptions of mathematics education at the end of their initial teacher education, NERA congress in Stockholm.

## **CONTACT US**

For further information, please contact:

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Penang, Malaysia

Tel: +604 6522 700  
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Email: [director@recsam.edu.my](mailto:director@recsam.edu.my)

Officer in-charge:  
Ms. Rabiatal Adawlah | Email: [rabiatal@recsam.edu.my](mailto:rabiatal@recsam.edu.my) | Tel: +604 6522 743



COURSE  
CODE

# APPLICATION FORM

Recent  
Photograph  
of  
Applicant  
or  
Participant  
(Passport size)

Name of Course: \_\_\_\_\_

Duration: \_\_\_\_\_ to \_\_\_\_\_

(IMPORTANT - Please type or print. Each nominee is required to fill in this form in duplicate, ONE of which is to be submitted to RECSAM for processing)

## PERSONAL AND PROFESSIONAL PARTICULARS OF APPLICANT/PARTICIPANT

from \_\_\_\_\_ (Country)

### A. PERSONAL

1) Name in full

\_\_\_\_\_

(Please Underline Surname) MR  MRS  MISS  DR

2) Home Address

\_\_\_\_\_

\_\_\_\_\_

Tel No. \_\_\_\_\_

3) Office Address

\_\_\_\_\_

\_\_\_\_\_

Tel No. \_\_\_\_\_ Email: \_\_\_\_\_

Fax No. \_\_\_\_\_

4) Date of Birth

\_\_\_\_/\_\_\_\_/\_\_\_\_

Day Month Year

Place of Birth

\_\_\_\_\_

(Country)

5) Nationality

\_\_\_\_\_

Religion

\_\_\_\_\_

6) Particulars of N.R. \* Identity Card or Passport

\_\_\_\_\_

(Place of Issue)

\_\_\_\_\_

(Date of Issue)

\_\_\_\_/\_\_\_\_/\_\_\_\_

(Date of Expiry)

\_\_\_\_/\_\_\_\_/\_\_\_\_

\* National Registration

