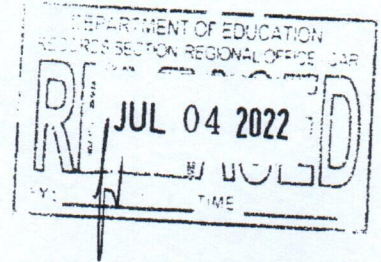


Republic of the Philippines  
**Department of Education**  
 Cordillera Administrative Region




30 June 2022


**REGIONAL MEMORANDUM**  
 No. 319-2022

**VIRTUAL PROFESSIONAL DEVELOPMENT WORKSHOP  
 FOR SCIENCE TEACHERS**

To: Schools Division Superintendents  
 Public Schools District and Division Supervisors  
 Public and Private Elementary and Secondary Schools  
 All Others Concerned

1. The Department of Science and Technology – Philippine Nuclear Research Institute (DOST-PNRI) is organizing the **Curie's Class**, a virtual professional development training course/workshop for secondary school science teachers on August 8 -19, 2022. The event is one of the activities under the PNRI's Nuclear Science and Technology Education Program and the IAEA technical cooperation project RAS0091 "Supporting Nuclear Science and Technology Education at the Secondary and Tertiary Level."
2. This workshop is open to all science teachers, with preference to Grade 11 and 12 science teachers and Junior High School science teachers handling special science classes. This workshop will run for 2 weeks with a total of 8 sessions. Each session is designed for a 4-hour engagement with course materials. The sessions will be rendered as a combination of pre-recorded (asynchronous) and live (synchronous) lectures.
3. Interested teachers are encouraged to apply through the PNRI Online Course Application Portal <https://services.pnri.dost.gov.ph/portal/ApplyUser> on or before July 22, 2022. All qualified applicants must inform their respective SDOs for tracking purposes.
4. Enclosed are the complete details of the professional development workshop for your reference.
5. Immediate and wide dissemination of this Memorandum is desired.

To: School Administrators, Principals & Teachers In-Charge  
 (Elementary & Secondary)  
 FOR YOUR INFORMATION & APPROPRIATE ACTION  
  
 FEDERICO P. MARTIN, EdD, CEEd, CESO V  
 Schools Division Superintendent  
 NEAPR/JPA/nkm

  
**ESTELA P. LEON CARIÑO EdD, CESO III**  
 Director IV/Regional Director





DEPARTMENT OF SCIENCE AND TECHNOLOGY




# PHILIPPINE NUCLEAR RESEARCH INSTITUTE

## COURSE INFORMATION BULLETIN

<b>Course Title:</b>	<b>CURIE'S CLASS: NUCLEAR SCIENCE FOR HIGH SCHOOL TEACHERS</b>
<b>Date and Duration</b>	<b>August 8 – 19, 2022 (40 hours spread in two weeks)</b>
<b>Course Description</b>	Curie's class is a professional development training course/workshop for secondary school science teachers. It aims to equip teachers with the ability to bring nuclear science into their classrooms and confidently teach their students about the peaceful and beneficial uses of the atom's energy.
<b>Course Outcomes and Objectives</b>	<p>The main outcome of the course is to have participants apply tools and strategies for teaching nuclear science concepts in their classrooms.</p> <p>At the end of the course, participants are expected to</p> <ol style="list-style-type: none"><li>1. Develop an understanding of the nature of radiation and radioactivity and the peaceful and beneficial uses of the atom's energy</li><li>2. Demonstrate understanding of the statistical nature of radiation phenomena by collecting, processing, and reporting experimental data</li><li>3. Effectively use various tools and models to teach nuclear science</li></ol>
<b>Participation:</b>	This course is open to science and technology teachers, with preference to Grade 11 and 12 science teachers or those who are handling special science classes.
<b>Application Procedure:</b>	<p>Candidates wishing to apply for this course should follow the steps below:</p> <ol style="list-style-type: none"><li>1. Prepare electronic copies of the following supporting documents:<ul style="list-style-type: none"><li>• Recommendation/Endorsement letter from the university, institution, or company where the applicant is employed. Kindly address it to Dr. Carlo Arcilla, PNRI Director.</li><li>• A recent 1x1 ID photo of the applicant</li></ul></li><li>2. Access the DOST-PNRI Online Course Application Portal (<a href="https://services.pnri.dost.gov.ph/portal/ApplyUser">https://services.pnri.dost.gov.ph/portal/ApplyUser</a>). Fill out application form completely and submit. Any issues/problems related to the Application Portal can be addressed to <a href="mailto:mis@pnri.dost.gov.ph">mis@pnri.dost.gov.ph</a>.</li><li>3. <b>Closing date for applications is July 22, 2022 (Friday)</b></li></ol> <p>Successful applicants will be notified by email 3 – 5 working days after the closing date. Due to the volume of applications the center receives, no notification will be sent to applicants who will not be accepted to the training course. For more details on how to apply: <a href="https://bit.ly/PNRI-Course-Application">https://bit.ly/PNRI-Course-Application</a>.</p>
<b>Administrative Arrangements:</b>	<p>Participation to the course is free of charge. However, the participants should cover all expenses (e.g., web camera, headset, software, computer, Internet connection, studio rental, etc.) necessary to participate in the online course. In addition, the organizers do not provide the participants with any auxiliary devices (e.g., CD, USB flash drive, etc.). <b>It is clearly understood that each organization, in recommending/endorsing the participants, undertakes the responsibility for such coverage including any special arrangements related to the participant's work schedule/load to ensure the participants full participation and successful completion of the course.</b></p> <p>It is recommended that participants prepare a place (e.g. office, house, etc.) for the online course, including a web camera, headset, software, computer, Internet connection, etc.</p>

Commonwealth Avenue, Diliman, Quezon City  
PO Box 213 UP Quezon City | PO Box 932 Manila |  
PO Box 1314 Central, Quezon City  
Telephone (632) 8929-60-10 to 19  
Fax (632) 8920-16-46

#### CONTACT US

 /PNRIDOST  
 [ntc@pnri.dost.gov.ph](mailto:ntc@pnri.dost.gov.ph)  
 PNRI.DOST.GOV.PH

#### TO APPLY FOR A COURSE, VISIT:

<https://services.pnri.dost.gov.ph/portal>



DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**PHILIPPINE NUCLEAR RESEARCH INSTITUTE**  
COURSE INFORMATION BULLETIN

**Nature and Scope of the Course:**

The training course/workshop will run for 2 weeks, with 8 sessions (including the opening and closing programs). Each session is designed for a 4-hour engagement with the course materials. The sessions will be rendered as a combination of pre-recorded (asynchronous) and live (synchronous) lectures. The course will be facilitated through an online learning management system.

For the pre-recorded sessions, a dedicated time for interaction of participants with the course lecturers/facilitators (Q&A Sessions) will be scheduled from 11 AM – 12 Noon for topics that are scheduled in the morning and 3 PM – 4 PM for topics that are scheduled in the afternoon. All Live sessions will include Q&A sessions right after the presentation. This will be facilitated through the LMS's conference feature such as Zoom, MS Teams, or Google Meet. All live sessions will be recorded and will be made available to participants for the duration of the training course. Alternative activities will be conducted in place of hands-on exercises or experiments.

Activities used for instruction and assessment of learning include the following: interactive lectures, exercises, hands-on-activities, readings, discussions, reflections, and examinations.

This is a Pass/Fail course. Participants need to complete all required activities and earn a final grade of at least 50% to receive a certificate of completion.

**Topics to be Covered:**




1. Structure of the Atom
2. Radiation and Radioactivity
3. Nuclear Transformations
4. Radioactivity and the Environment
5. Interaction of Radiation with Matter
6. Fission, Fusion, and Nuclear Reactors
7. Risk and Safety of Radioactive Materials
8. Applications of nuclear science in agriculture, health and medicine, energy, industry, and other fields

**Activities/ Exercises/ Experiments:**

1. The Nuclide Chart
2. Estimating Annual Dose
3. Background Radiation Measurements (using meters available in the PNRI classroom kit)
4. Half-life of a Beer/Soda Foam
5. Cloud Chamber Experiment
6. Time, Distance and Shielding Experiments
7. Radiosensitivity Experiments
8. Tour of PNRI facilities (Virtual)
9. Technical visit to other nuclear facilities (Virtual)

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